THIRD EDITION

5

Q

Skills for Success
READING AND WRITING

Nigel A. Caplan | Scott Roy Douglas

Teacher's Handbook
WITH TEACHER ACCESS CARD

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Critical Thinking Foundations: Implications for the Language Classroom

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Special Interest Group

Critical Thinking has become a buzzword in education over the past decade (Finnish National Board of Education, 2004; Moore, 2013; Mulnix, 2012; Scriven & Paul, 2007) and for good reason—it is a very important skill for life. But how should we, as educators, best integrate critical thinking into our language learning classroom? This article will give a working definition of critical thinking, shed light on the foundations of critical thinking, and provide some concrete avenues to introduce it into your classroom.

What is Critical Thinking?

It can be very difficult to get a good grasp on what critical thinking is because it can be a particularly nebulous concept, made up of sub-objects which form the foundation of what most people envision as critical thinking (Scriven & Paul, 2007; van Gelder, 2005). To understand critical thinking, we need to first understand what it is made up of. The building blocks of critical thinking are higher-order thinking skills (HOTS). These skills, which are the fundamental skills utilized during the process of critical thinking (Dalton, 2011; Ford & Yore, 2012), are essential to understand in order to start students on the path toward being critical thinkers. Textbooks like *Q: Skills for Success Third Edition*, which integrate language practice that focuses on the implementation and development of HOTS in a second language, help to enable students to become more critical thinkers.

What are Higher-Order Thinking Skills?

Higher-order thinking skills are derived from Bloom's Revised Taxonomy (Krathwohl, 2002) which gives us a simplified, yet powerful, way to look at how students use their brains to remember, process, and use information (Fig. 1). The top three sections of Bloom's Revised Taxonomy are what many consider the higher-order thinking skills, or activities, if you will. One of the best uses for the taxonomy is attributing verbs to each tier in order to help an educator build activities that utilize these skills. Each skill has a myriad of verbs that comprise the level of thinking which, when integrated into a textbook, help students develop their understanding of a new language, and also foster the ability to think more critically about the information presented to them in the classroom or even in life.
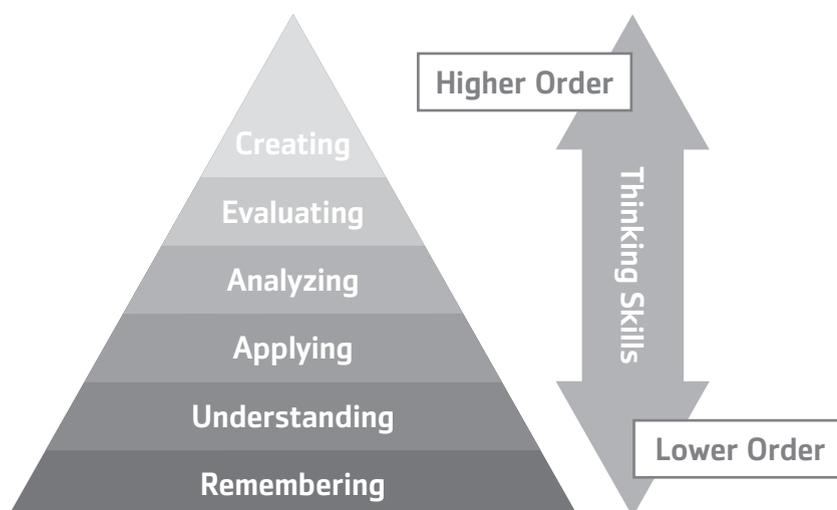

Fig. 1: Bloom's Revised Taxonomy

The verbs that are associated with the higher-order thinking skills are essential for developing the potential for critical thinking. The following are a few verbs, with activity suggestions that come from *Q: Skills for Success*, for the higher-order thinking skills that you can use in your classroom.

Analyzing

Analysis in language learning has a few beneficial effects. First, students are introduced to using their own judgement in the process of learning a new language. This helps in the development of pattern recognition and familiarization with the structure of knowledge. This aids in the student's ability to distinguish between items, recognize fact or opinion, and compare and contrast items. These skills are valuable in the production of both written and spoken English.

One way to integrate analyzing into language learning is to have students order information by a metric. Students are given a list of data and are asked to organize it into an order. This order could be derived from categories, a hierarchy, a taxonomy (like Bloom's), time, location, and importance. This can be further developed into a more challenging task by asking students to distinguish data from a series of similar information. With words that are similar in meaning to each other being used in the same text, it could be beneficial for students to practice differentiating these words and identifying how they differ from each other. Words like *tasty* and *mouth-watering* are very similar but have different depth or connotations.

You can push these activities to have a critical-thinking bent to them by asking the students to justify and explain their organization of data to a partner or a group. By explaining their thought process on how they organized the information, they open themselves up to questions and deeper reflection on how they used the information activity.

Evaluating

From simple sentences to complicated grammatical structures and vocabulary, all students can give an opinion. The important thing is to make sure their opinion is well formed. This is where evaluating comes into play. It can help students make judgements about information, opinions, and items. It is used to form judgements that are sound and based in logic. This leads to more complex usage of language and the development of more intricate sentence structures.

A good way to introduce evaluating into language practice is to have students assess the validity of an opinion/information. When a student hears or reads an opinion or some information in a textbook, it is important to encourage them to ask questions about it. Where did the information come from? Is it factually correct? Does it stand up to the norms of the student's home culture? With the aforementioned activities in mind, you can ask students to start making their own opinions about information presented to them in a textbook and from the research they do on their own. In addition to the forming of opinions, it is just as important to require students to justify their answers with the information they found from the research.

Creating

Finally, we come to the act of creating. The highest tier of the HOTS taxonomy, creative thinking is essential for getting students curious and using English in situations not covered in a textbook. Creation is beneficial for mental flexibility, originality in producing language, and making critiques on what students read and hear. These abilities are core to developing fluency and spontaneity in academic and everyday interactions.

Teachers can bring students into creation in language activities by expanding topics into active learning opportunities. By taking a textbook's topic further and expanding on the initial setting or information, students can use real-world problems to acquire new knowledge. By creating solutions to problems, advice for friends, and even recipes for food, students are engaging in the act of creation. These activities can be further expanded into critical thinking activities by having students analyze shared recipes, research substitutions for advice, or justify the solutions they create (using facts and information found in research).

Conclusion

As you can most likely see, many of the higher-order skill activities tend to build upon one another. This is because each step in the hierarchy depends on the lower rungs of knowledge. These skills then form the foundation of critical thinking and encourage students to participate in intellectual pursuits to further their language acquisition experience. These types of activities can help students in developing fluency and achieving higher test scores (Dunn, 2016; Parrish & Johnson, 2010; Wong, 2016). All students, regardless of home culture, have the innate talent to utilize Critical Thinking Skills. These skills have the ability to impact almost every aspect of a student's life, from job hunting to gaining promotions and even making friends. By integrating higher-order thinking skills into language practice, educators can have an impact on a student's life even outside of the classroom.

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As you start getting into *Q: Skills for Success*, you will find that higher-order thinking skills and opportunities for students to utilize critical thinking are well integrated into each unit. While it would be completely possible to use only the book (and the online activities) to improve a student's ability to utilize critical thinking, some educators may look to expand activities and get students to look deeper into the subjects introduced in the text. Below are three suggestions for expanding activities in the Student Book that will help you get the most out of it and your students.

1 Change the terms of an activity

When doing an activity, it can be beneficial for your students to tweak the parameters of an activity. *Q: Skills for Success* comes with excellent activities that utilize higher-order thinking skills to promote critical thinking. An example of this could be an activity that asks students to categorize information, for example, categorizing family members by age. The categorization metric, "age," could be changed to something else entirely.

Change the metric: Have students categorize family members by height, employment, or even how much they like each family member. This encourages mental flexibility and primes the student for creative use of English.

Get the students involved: Ask students to come up with new ways to approach the activity and use these ideas to expand on the topic, vocabulary, and skills they can practice.

2 Get online

Twenty-first century skills have come to the forefront of the educational mindset. Giving students the opportunity to go online, use English, and even go beyond the Student Book is important for utilizing skills that students may need to be a global citizen. *Q: Skills for Success* comes with a host of online practice that utilizes and expands the topics, vocabulary, and grammar in the textbook.

A jumping-off point: Educators can push students even further into online research and expansion of the learning topic. Have them investigate aspects of a topic they find interesting.

The class consensus: After students do their own research, have them share their findings with the class and write them on the board. After everyone has shared, you can discuss the results from a whole-class perspective.

3 Expand into deeper critical thinking skills

Q: Skills for Success Third Edition has an array of first-rate critical thinking and higher-order thinking skills built into each unit with activities in the Student Book and in the Online Practice. Once the activity is finished, you can further move the class toward critical thinking skills by having students share their answers, ask questions about how they came to those answers, and justify their answers to each other.

Give students the chance to compare and contrast: By giving students the opportunity to share answers with each other and compare their findings, you allow them to brainstorm new ideas, evaluate each other's answers, and develop debate skills naturally.

Justify justify justify: Whenever you have your students give an opinion, make sure they are justifying their opinions with evidence, life experience, or both. Circular logic like "I like pizza because it is delicious, and it tastes good." is something that needs to be avoided. A better answer would use their life experience to justify their like of pizza such as, "I like pizza because it is delicious. Tomato sauce is so great and even a little healthy!" Strive to have students give good opinions at all times.

Making Assessment Effective

Elaine Boyd Q Series Consultant, Assessment

In most educational settings nowadays, the requirement for assessments, both classroom and summative at the end of a course, is increasing. Teachers regularly assess their students informally in class, but they often get very little support or training in what and how to assess in a more structured way so that the tests are valid for learning and give reliable information to the teacher. Teachers intuitively understand that any assessment needs to be fair—both in terms of what is expected of the students and in the results that reflect the students' ability or competence in language. A learning program should include ongoing assessments that feed back into the classroom, give students information about what they need to focus on, and allow teachers to plan class content according to their students' needs. This is commonly known as Assessment for Learning and, although these assessments are usually conducted informally in class, they still need to be designed and delivered in a way that is fair and valid if the tests are to support learning effectively. What can help teachers to both manage and deliver fair and meaningful assessments that progress learning is an understanding of the principles that underlie assessment, why these principles are important, and how to make sure any assessment aligns with the principles.

The main points to consider when implementing an assessment program is the purpose of the assessment, its suitability for the intended test-takers (i.e. the students), and the reliability of the results. We capture these by implementing three principles—validity, reliability, and fairness/fitness for purpose. Let's consider each in turn.

Testing principle 1: Validity

We say a test is valid when we know it is testing what we intend it to test and that the testing focus (or construct) aligns with what the test-takers needs are. Put simply, this means you need to have a very clear idea of what construct (or sub-skill/competence) you are testing. For example, if we want to test a speaking skill, we don't set a task that involves a lot of reading because we will not know if the student has given a poor performance because of a lack of competence in reading or in speaking. Equally, if we want to assess a student's discourse competence, such as the internal organization of a piece of writing, then we need to give them a task that gives the test-taker a good opportunity to demonstrate this. Each test task needs to have a tight focus on what it is testing and not aim to assess too many things at the same time. This is why tests often have a variety of task and item types. This is arguably the most important principle, and if a test is not valid, it will never be reliable or fair.

Testing principle 2: Reliability

Reliability is very important for major summative tests, which can be very high stakes in that they can have a life-changing outcome. But many teachers do not realize that reliability is important even for classroom tests. We need to be sure that the information we are getting about the students' learning or achievement is correct because actions ensue from these results. This means even for informal classroom and ongoing assessments, we need to aim to make any assessment reliable. We do this by making sure the instructions are clear, that the tests are standardized so that even different versions are testing the same skills or competences, the marking is standardized, students are only tested on what they have been taught, etc. This can be a particularly challenging issue when we think about productive skills, which are core to communicative competence, but it is important to be as consistent as possible so that our students feel that they have been fairly assessed.

Testing principle 3: Fairness

In many ways, fairness is what drives the need for valid and reliable tests, but there is another aspect to fairness that can make a real difference to the test-taker and that is their involvement in the process. This involvement includes communication with students about what is expected of them and why, ensuring they are aware of what they will be assessed on, e.g. performance criteria of grading scales, and always giving meaningful feedback regarding the results of the assessment. This is especially important in ongoing classroom assessment models.

Effective feedback

Arguably the whole purpose of an ongoing classroom assessment program is to generate feedback, which will help both the students and the teacher. It is important for students to understand both what they have been successful at, as well as where they could improve. At the same time, classroom assessment also generates feedback for teachers so they can understand where they may need to implement a remedial or alternative approach to the learning objectives. Research evidence indicates that feedback works best (a) when it is given as soon as possible, (b) when only one or two points are targeted for improvement, and (c) where good guidance is given to learners on how they can improve, i.e. the specific action they need to take to help them. Remember all the tests have an extended answer key which explains why one answer is correct and others are not. This is to support teachers with any explanations and for students who may wish to reflect on any incorrect answers.

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Q TIPS
Assessment tips for Q Third Edition

1 Make sure students know what is expected of them

Before starting any test, discuss with students what they will be assessed on. This might be a skill or a vocabulary set or a range of language features.

Students need to know how they are being assessed, so go through the rubrics for Writing or Speaking (this will be one or the other – Writing for *Reading and Writing*; Speaking for *Listening and Speaking*) with them to make sure they understand the different assessment criteria and how these link to their learning.

2 Give feedback as soon as possible after the test

Discuss or point out what students have done well and then give them, either individually or as a class, a single point to improve. Discuss ideas with them around how they might improve but make sure you also have some suggestions to support them.

3 Use the student reflection worksheet

Make sure students understand each question in the worksheet; then allow them to complete it individually. Students can then discuss their answers in pairs, groups, or as a whole class. You can vary this throughout the course so everyone can share ideas. It's a good idea to build up a list of options for Questions 4 and 5 that everyone can have access to.

4 Use the expanded answer key effectively

The answers can either be discussed with the class or you may wish to ask students to do their own analysis first and then check how close their understanding is. If, after checking, students are still unsure of why an answer is incorrect, use the expanded key to discuss as a class and/or to prepare any remedial activities.

Q Using Video in Language Learning

Tamara Jones Q Third Edition Author

Did you know that approximately 300 hours of video are uploaded to YouTube every minute? From clips of popular TV shows to music videos to online talks, there is a seemingly infinite variety of videos out there for teachers and students to use as language learning resources.

In fact, there is so much out there, it can actually feel a bit overwhelming. It's incredibly time-consuming to weed out the videos that aren't appropriate or aren't at the right level. Once educators find a video for use, we have to figure out how to transform it from a passive activity to an opportunity for language learning. But creating a worthwhile activity that matches the learning outcomes for the lesson and pushes students to produce language takes time, something today's educators have precious little of.

So before we dive down the YouTube rabbit hole, it's important to keep in mind the reasons why we use videos in our English lessons and how we can save time by taking advantage of videos already tailored to our lessons.

The Benefits of Using Video in Language Learning

First, videos provide an excellent scaffold for academic topics. The visual support they provide can give students access to content that otherwise might be beyond them. For instance, if students are learning about the laws of science, as they do in *Q: Skills for Success Third Edition, Listening and Speaking Level 4*, watching a video on Moore's law can help students understand better what they are hearing.

In addition, students of all ages genuinely enjoy watching videos. Watching TV is a popular activity for relaxation around the world, so learners tend to associate it with positive emotions. Neuroscientists assert that positive emotions tag learning events and give them prominence in the memory. What this means is that there is actually a biological purpose for making language learning fun, and using videos is one way to achieve that goal.

Finally, videos are an increasingly common source of information in the world nowadays. Where people used to get their news and information from articles and books, now they might also search for video clips on a topic as well. So exposure to video and incorporating them into teaching regularly is a useful 21st-century skill. However, as alternative sources for information have flourished, the need for students to become skeptical consumers has also grown. Critical thinking skills, therefore, are an important part of learning from videos.

Using Authentic Videos

The internet is crammed with all kinds of videos. But which ones will best meet the needs of our learners? Most teachers would probably agree that using authentic videos, in other words, content that was created with a purpose other than language learning in mind, grabs the attention of students and can motivate them and challenge them. The problem is that "real" videos are often very difficult for people who are not yet proficient users of a language to understand.

The most obvious solution to this problem is for teachers to turn to graded videos. For instance, beginning level students would probably be frustrated if they had to watch an American news report about the emotional benefits of running. The pace of the speaker would be too fast and the students probably wouldn't know much of the vocabulary. However, a graded video covers the same topic and the same content, but with vocabulary and grammar structures that are familiar to the learners and at a pace that is manageable. Luckily, teachers who use *Q: Skills for Success* can take advantage of the videos and accompanying activities presented in the Student Book and online. These videos come from authentic sources, though the language is often graded at lower levels to make the content accessible and level-appropriate.

Using Teaching Videos

The internet is chock-full of English teaching videos, too. There are lessons on everything from grammar points to conversation strategies to pronunciation tips. Sometimes these skills videos are great. Because the information is under the control of the students, they can watch them again and again and even use them to review for quizzes or brush up on their skills. Certainly, these videos allow students a certain degree of autonomy over their learning.

However, it can take a while to find videos that are relevant to the lesson. Unfortunately, not all the skills videos out there are accurate or of a high-quality. Sharing skills videos such as these with learners requires a teacher to spend time searching for videos that are a good match for the students and the lesson, are well-made, and (most importantly) are actually correct.

Again, *Q: Skills for Success* comes to the rescue. The skills videos that accompany each unit are professional quality, level-appropriate, and reliable. These videos can be used to introduce new concepts, provide additional support for struggling students, and allow opportunities for review.

Using videos in language learning is certainly fun, but it's not just fun. Videos can help students learn more easily and remember more. Although it can require a time commitment from teachers (unless you are using the *Q* videos, of course), most students would agree that it's time well spent!

1 Prepare

Using a video in class involves a lot more than just playing it. After all, the key is to make the video more than just the video; there always has to be a pedagogical purpose to everything we do in the classroom. So it's important for teachers to plan follow-up activities, such as answering comprehension questions, defining new vocabulary, writing sentences, or completing a T-chart. *Q: Skills for Success* offers scaffolded activities like this that have been created with your learners in mind; however, you can always include a few more activities if your students find a topic particularly engaging.

2 It's not just for listening

Consider using videos for more than just listening comprehension. You can integrate video expansion activities into every skill area—reading, writing, listening, speaking, grammar, vocabulary, and pronunciation! The *Q: Skills for Success Teaching Notes* contain many out-of-the-box ideas for squeezing every last drop out of a video clip. You might be surprised to learn all the different ways to use videos in the language classroom that go far beyond the traditional fill-in-the-blank activity.

3 Use the transcript

When possible and appropriate, make sure students have the opportunity to read the transcript as they watch a video. The act of listening while reading is enormously helpful to English learners because it reinforces sound/spelling correspondence and helps weaker listeners develop bottom-up listening skills like segmenting speech into words.

4 Flip the classroom

Experiment with using videos to flip the classroom. Assign skill videos from *Q* or those developed by other teachers online as homework. Make students accountable for watching the video by giving them a handout that asks questions about things that appear in the video as well as about the skill itself. Then in class, set aside a little time to address questions before transitioning into interactive practice activities. Flipping the classroom reduces the amount of teacher talk time and increases the amount of time that students have for producing the language. As well, struggling students can watch the skill video again and again until they understand, as opposed to having one chance at hearing the information in a teacher's lecture in class. It's a win-win!

Q To go online or not to go online?
Chantal Hemmi

Chantal Hemmi suggests a hermeneutical process to finding out about student progress and future needs.

A hermeneutical process is all about being a good listener and observer of student progress over time: 'Essentially, hermeneutics accords an important role to the actors and demands sensitivity and ability to listen closely to them' (Young and Collin, 1988:154).

With increasing learner access to both authentic materials as well as materials written for language learners online, teachers are faced with a question: Shall I go online in class or not? The same goes for homework. One way to make this informed choice is for teachers to think critically about the aim of the lesson. Here are some questions we could ask ourselves:

* Will the activity raise interest in the new topic area?
  Is it more effective to go online to stimulate interest in the subject, or do we want in-class activities that incorporate an interactive, kinesthetic element with the use of cue cards or pictures to encourage students to brainstorm activities interactively?

* Do we want to go online to do a reading or listening exercise, or a vocabulary learning activity for input? Can this be done more effectively online, or are your students in need of more face-to-face scaffolding of content and language before you go online?

* Are we encouraging students to develop their autonomy by going online to do some research on an essay or presentation topic? Do the students have access to a library from which to borrow books or download reliable materials? Which is the better option for them, to go online or to use paper-based publications, such as books?

The choice must always link into the aims of our courses. We have to bear in mind the strategy we want to take in order to develop students' knowledge of the content, the language they need to function in the class, and also the opportunity for students to think critically about what they are learning. Teachers must decide what mode of input and output we want in order to scaffold the content, language and skills students need to deal with communication in our diverse global communities.

How do good teachers that I know find out about what is authentic to the learners? Some go for needs analysis questionnaires. Others opt for interviewing or focus groups where you set a list of semi-structured open-ended interview questions that you want the learners to discuss.

In my view, teaching itself is a hermeneutical process of finding out about where the students are with their learning, what they have learnt and what they are still not confident about, and how they want to get the input, online or through basic scaffolding through classroom interaction, with the teacher facilitating the construction of new knowledge or language input. Not only should we be a good listener and observer, but also we should have the ability to choose tasks that best fit the class learner profile, based on our observations about where they are with their learning.

Thus, a hermeneutical process of finding out about student progress and future needs does not only look at snapshots of learners at a point in time, but looks at what happens over a term, or over the whole academic year. For example, a short speaking or writing test taken before mid-term can show a snapshot of the student's ability at that point in time. But we can include different modes of assessment such as group interviews, presentations, and essay-writing tests to see what kind of progress is observed over time. The key to making the process hermeneutical is to construct a dialogue through online or paper-based learner diaries so that students can reflect on their progress and about what they are learning. The teacher can make comments about student observations and thus sustain the dialogue over a period of time.

I myself learnt through experience that when I am still being controlled by the actual technology, blended learning cannot help to manifest the aims of the course. The beauty of an effective blended learning journey will only be actualized when the teacher gains control over the technical as well as the methodological knowledge and skills to design courses so that in every lesson, the teacher knows why he/she is going online or choosing to stay with face-to-face input. Blended learning is a site of struggle, because the teacher has to question his/her role and to become skilled in making those important decisions that are going to play a crucial role in the design of our courses. Ultimately the aim is to conduct activities that benefit our learners with varying needs. Finally, blended learning also gives the teacher and students opportunities to explore effective modes of learning and to make the learning experience authentic to the learner.

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Q TIPS
Blended learning tips for iQ Online

1 **Always think what your end product is going to be at the end of a unit**
What do your students need to be able to do at the end? What kind of content, language and skills input do they need to be able to reach that goal?

2 **To go online or not to go online, that is the question!**
At the start of the unit, students have the opportunity to discuss the unit question online. Ask whether it is the right time to take the students to the Online Discussion Board or not. Have the students already got a rapport with each other to work collaboratively face to face? If so, this might be a good time to do some learner training to demonstrate how the Online Discussion Board works.
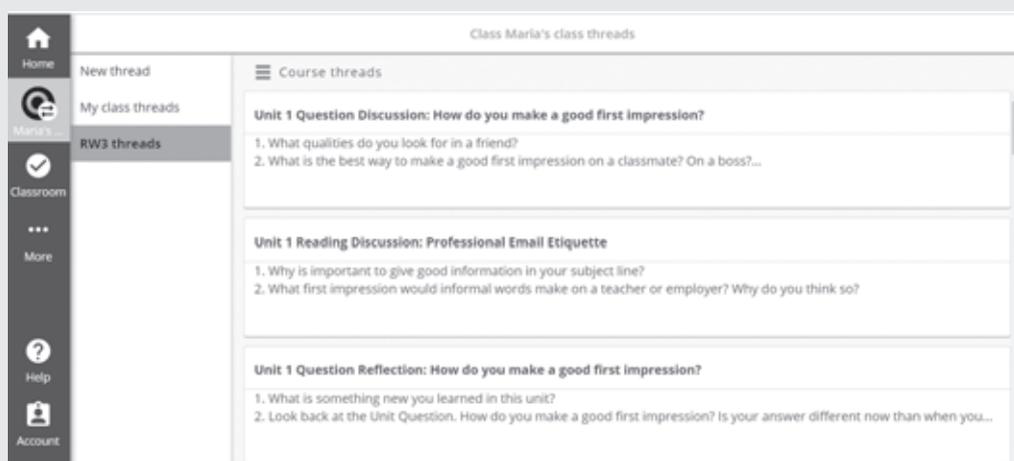
3 **Reading an online article: applying the study skills learnt off line**
Go online to guide students to preview the vocabulary, read the paragraphs and do Quick Write. This is a good way to encourage students to interact with the text online. The reading exercises present examples of sentence structures and vocabulary needed to do the final writing task. This is a nice way to integrate the reading and writing activity.

4 **The end product: the writing assignment**
At the final writing stage, a writing model is presented to scaffold the shape of the writing task. This is followed by graphic organizers that show the structure of the paragraph, and grammar exercises online.

Students plan and write the assignment online. After writing, there is a peer review exercise that could be done. If my students need practice in writing offline, in handwriting, I might ask the students to do so without going online.

Using Communicative Grammar Activities Successfully in the Language Classroom

Nancy Schoenfeld

Have you ever tried to use a communicative grammar activity in class only to have it flop? Have you ever stood helplessly by as students look blankly at each other and then commence to talk with one another in their native languages? I have. It is an unpleasant feeling to watch your students have an unsuccessful experience in the language that they are trying to learn, especially when you chose the activity. I admit, too, that after such an experience I've thought that communicative activities just don't work.

Fortunately, I have discovered that communicative grammar activities DO work, that students enjoy them immensely, and they have an impact on language learning. Communicative activities in general encourage students to learn in creative and meaningful ways while promoting fluency (Richards & Rodgers, 2001). I have also discovered that HOW the language teacher executes the activity is just as important as the activity itself. I hope that these suggestions will help you as you plan to use communicative grammar activities in your own classrooms.

Sequencing

First of all, it is important that communicative grammar activities are positioned properly in the overall grammar lesson. (see Fig. 1). One mistake that I made was to have my students attempt to do a communicative grammar activity too soon. Ur (1988) suggests that there are four parts to grammar lessons: presentation, isolation and explanation, practice, and test. However, the "practice" step can be broken down further into three additional steps which build upon each other (Ur, 1988).

The first type of practice activities should be devoted only to the form of the grammar being taught. This gives a chance for students to understand the rules. The next type of practice activities allows students to focus on form plus the meaning of the grammar point. Last are the communicative grammar activities which allow for freer expression by students while still utilizing the taught forms. As you can see, there is a lot of work to be orchestrated by the instructor before attempting these activities.

presentation

isolation and explanation

practice
- form-based
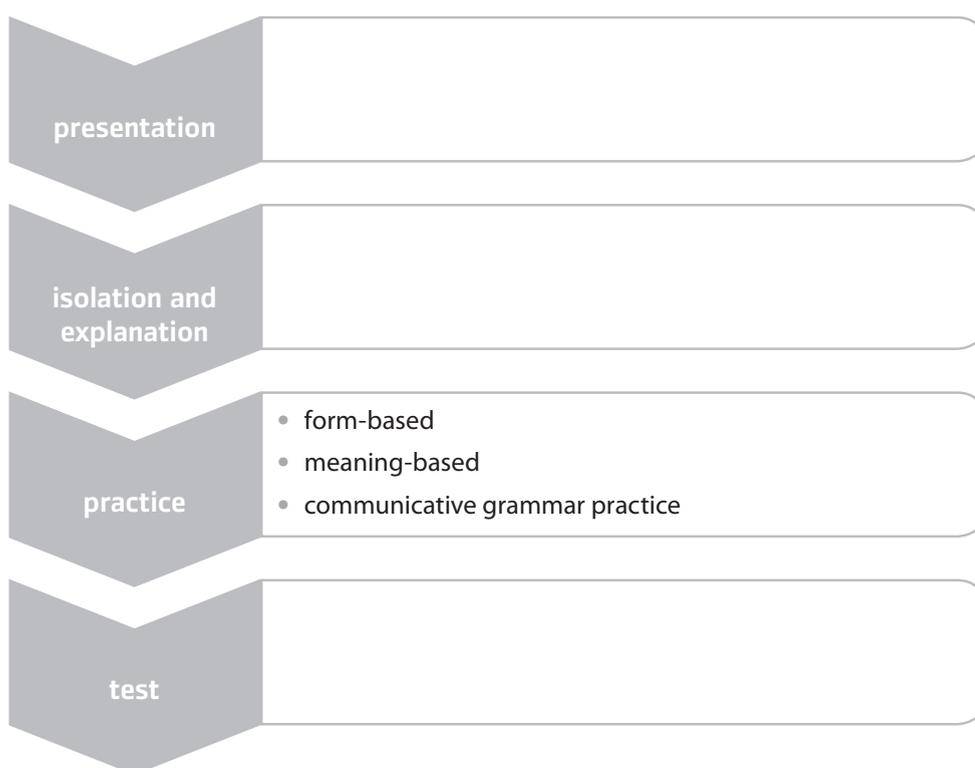- meaning-based
- communicative grammar practice

test

Fig. 1 Sequencing grammar lessons (Ur, 1988)

Modeling

Before launching into a communicative activity, it is important to **model** the activity properly. It is not enough to merely *tell* your students what to do, you need to *show* them how to execute the task. For example, if the task is to practice question forms and I've given my students a list of questions to ask three other students, and a place to take notes, I would model the activity by having a student join me up in front of the class while I ask him some of the questions and record the answers. Then I ask another student to join me and so forth.

It is also important to show your students what they *aren't* supposed to do. To use the above example, it is tempting for students to form a group of four students with one person answering the questions and the three others recording the answers. This severely limits the amount of language practice the activity was designed for. And if you don't want students to look at each other's papers, such as in an information gap activity, mime holding your paper close to your chest so students understand that they are to talk and listen and not read.

Observing

During the communicative grammar activity, it is important to circulate around the room. The purpose for this is two-fold. First, you want to make sure that all students are participating fully in the activity and that they are not facing any difficulties. Sometimes students are stuck on the meaning of a word and this is preventing them from completing the activity. Your attentiveness can help them get unstuck and proceed. It is also a good opportunity to listen in on how students are using the grammar being practiced. If you hear a lot of errors, note them down and address them when the activity has finished.

Being persistent

Finally, it is important to not give up if your first forays with communicative grammar activities are not as successful as you hoped. Our students come from a variety of educational backgrounds. If they have had negative English language learning experiences, they bring those instances with them into our classrooms. Some students may be reticent to speak because errors brought punishment, belittlement or embarrassment. Others may have just been conditioned to take high-stakes language exams and have had little opportunity to actually communicate in English. In his excellent book on student motivation, Dörnyei (2001) describes different strategies that teachers can utilize to overcome these difficulties. These include making sure that language tasks can be completed successfully by students, that the activities themselves are fun and relevant, and that the teacher makes the classroom environment as comfortable as possible for students.

I will never forget the first time I conducted a successful communicative grammar practice activity. The classroom atmosphere changed completely. My students were smiling and laughing, grateful for a chance to move around and actively communicate with each other instead of just being passive listeners. I was thrilled because they were getting vital practice in an enjoyable and meaningful way. I was also pleased with myself because I hadn't quit trying to make this moment possible. Yes, successful communicative grammar activities require a lot of thought and planning on the part of the teacher, but the dividends are gold. May you and your students experience many of these golden moments.

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Q TIPS

Communicative grammar tips for Q Third Edition

The practice stage of a grammar lesson has three distinctive parts: form-based practice, meaning-based practice, and communicative activities. Here are examples of all three types of practice activities focusing on conjunctions.

1 Form-based practice

Students practice when and when not to use commas while using conjunctions. The conjunction is provided for students so they don't need to worry about the meanings of conjunctions at this stage.

Directions: Insert a comma where necessary.

1. I like to eat chicken but not fish.
2. I lost my credit card so I need to get another one.
3. We will visit Paris and then we will fly to London.
4. Do you want tea or coffee?

2 Meaning-based practice

This next practice activity requires students to add the correct conjunction according to the meaning of the sentence.

Directions: Add *and, but, or* or *so* to the following sentences. Add a comma if necessary.

1. They were hungry _____ they ordered some pizza.
2. Do you want to go out for breakfast _____ lunch?
3. I have six brothers _____ sisters in my family.
4. I like this bag _____ it is too expensive. I can't buy it.

3 Communicative activity

A communicative activity allows for freer communication while still practicing conjunctions. Each student will have different answers which makes the activity interesting.

Directions: Ask 5 students the following questions. Students should use *and, but, or* or *so* and complete sentences when answering.

1. What is your favorite food? What food do you not like?
2. What two places would you like to visit on your next holiday?
3. What are two things you usually do on weekends?
4. What reason do you give your teacher when you are late to class?

In *Q* Third Edition, each unit has a communicative grammar activity designed to give students freer and meaningful practice using the grammar introduced in the unit. You can download these Communicative Grammar Worksheets on iQ Online Practice.

Q Vocabulary in your students' writing: the Bottom Line

Cheryl Boyd Zimmerman Q Series Consultant, Vocabulary

Isn't it obvious? In order to write well, we need to know a lot of words, and we need to know a lot about each word so we can use it to say what we mean. In fact, without the knowledge of many words, our writing is stymied—or should I say *crimped*? *impeded*? *blocked*? *snookered*? A word choice transmits not only meaning, but tone and subtleties of meaning such as familiarity or distance, precision or vagueness, certainty or ambiguity, earnestness or light-heartedness and more. For academic writing, this becomes especially challenging. In order to communicate as I intend, I need to know the ways in which words vary and then I need a wide variety of words from which to make my choices.

Why isn't vocabulary development included in every writing class? Perhaps we underestimate the difficulty of this task and prefer to spend precious classroom time on other issues. Or perhaps we don't know how to integrate word learning into writing in a way that is relevant to the writing task. But by not spending time developing our students' vocabulary, we are hindering their writing development and academic success.

This article suggests some techniques that address vocabulary development at each stage of the writing process: pre-writing, drafting, revision and editing, and gives you the bottom line when it comes to explaining the role of vocabulary to your students.

Pre-writing

This is the stage in which we gather ideas, develop thoughts and analyze the writing task. First, what type of writing (genre) is to be used: Newspaper article? Persuasive essay? Summary? Blog? This helps sort through the topic, choose how to focus attention and be clear about purpose and audience. Next, focus on finding a topic and exploring it with a purpose in mind. Reading and writing go hand-in-hand. To help students with both genre identification and topic development, use high-interest readings to provide clear models and to spawn ideas.

A focus on vocabulary can illuminate the topic and guide the planning. Pre-writing activities with a lexical focus might include:

Brainstorming:

- Students read the writing prompt or a short passage about the topic, and identify 1–2 words that stand out as central to the topic. For each one, students generate as many related words in 5–10 minutes without censoring themselves.
- Pairs or small groups compare lists, and explain their choices, keeping the topic and genre in mind. Encourage students to share words and add to their lists.

Freewriting:

- Students write non-stop for 5–10 minutes about whatever comes to mind that might relate to the topic, again without censoring themselves. Next, students reread what they wrote and circle words that seem important to what they want to say. Include words that describe facts, important names, opinions and feelings. Include synonyms that are related words in different registers.
- Using these selected words, describe your plans to a partner.

Paragraph Analyses:

Select a paragraph that is written in the same genre or on the same topic as the assignment. Provide copies or project on a screen. Read together as a class, drawing attention to vocabulary with questions such as:

- Which everyday words are used here?
- Which academic words are used here? (See examples at **oxfordlearnersdictionaries.com/wordlists/opal**).
- Focus on one well-used word at a time; what is behind the author's choice of each word? Select another paragraph and repeat this activity. Pairs work together to answer the same questions as above. Compare answers.

> **Bottom Line for Your Students**
>
> Different types of writing use different types of words. Even very academic papers don't use a large number of academic words, but they use them effectively. Academic texts contain an average of 10% academic words (Coxhead, 2006).

Drafting Stage

In this stage, vocabulary activities can evolve from a focus on meaning to a refinement of meaning, always related to whom you are writing for and why you are writing.

- As your students begin their first draft, refer to the words they identified during prewriting. Organize the way these words relate to each other as they develop their first draft.
- Return to the source text for the assignment or other relevant articles on the same topic. Identify words that stand out to your students as interesting and important to the message. Use these words in the writing.

> **Bottom Line for Your Students**
>
> Word learning doesn't just mean to learn new words, but also to learn to have confidence to use words that you recognize but don't use often. Writing gives you a chance to use partially-known words and to build your knowledge of these words.

Revision Stage

The revision stage is a time to check that your students' writing responded to the prompt, and that it focused on the purpose and audience as intended. Examples of doing this with a focus on vocabulary include:

- Ask your students to re-read the prompt and then re-read their papers. Do they address the prompt? Are there any words in the prompt that can be added to their papers for the purpose of congruity?
- Read through the papers and look for vague words (*good*; *nice*; *very*). With purpose and topic in mind, change them to be more specific and clear.

Bottom Line for Your Students

A study of 178 university professors found that the greatest problem with the writing of non-native speakers in their classes was vocabulary. They said vocabulary (more than grammar) kept them from understanding the meaning. (Santos, 1988) Your word choices are very important.

Editing Stage

The editing stage can be used as a guided opportunity to check for details of word-use including subtleties of meaning, lexical variety, grammatical features, derivatives and collocations. With this stage, students work with a final or near-final draft. Guide students to read through all or part of the paper, *focusing on one task at a time*:

- Lexical variety: Did they over-use any words? Did they repeat the same word in the same sentence?
- Noun use: Check their accuracy: Are they plural? Singular? Countable? Uncountable?
- Verb use: Do they "agree" with the nouns in plurality? Check for verb completion. Do the verbs need to be followed by an object? Do they need a "that" clause?
- Academic word use: Underline each academic word used. Has the student used them correctly? (When in doubt, check a dictionary.) Do they have enough? Too many?

Bottom Line for Your Students

You may have been taught to focus on grammar when you edit your paper, but grammar and vocabulary often overlap. Take time to focus on individual words; do they say what you mean and say it accurately?

Writing instruction and word learning belong together. These are some examples of ways to engage vocabulary development in writing.

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VOCABULARY

Q TIPS
Vocabulary tips for Q Third Edition

1 Prioritize important words

Help students to focus on the words that are most useful for them to learn, and encourage them to use those words. *Q Third Edition* incorporates both the Oxford 3000 or the Oxford 5000 and the Oxford Phrasal Academic Lexicon (OPAL), corpus-based lists that identify the most useful words to know in a general and academic context.

2 Use model texts to draw attention to vocabulary

Before starting the writing task, project the writing model on screen. Read together as a class, drawing attention to vocabulary with questions such as:

- Which academic words are used here?
- For each OPAL word, suggest a less formal word that the author might have used. What did the OPAL word add?
- Which everyday words are used here? What do they add?

3 Use the vocabulary from the reading

Students will have been exposed to relevant vocabulary in the reading part of the unit. Ask them to go back and refer to the earlier reading texts and Quick Write, and circle important words that they want to use in the writing assignment.

4 Encourage awareness of academic vocabulary

Students can highlight OPAL vocabulary in their writing. During the editing stage, check the following:

- Are there too few academic words? Too many? Does each academic word mean what you intend?
- Collocations: Are words combined accurately?
- Lexical variety: Are any words over-used? Or are the same words repeated in the same sentence?

5 Use technology to motivate students

Students can practice vocabulary online. For example, the vocabulary activities on *iQ Online Practice* make for a good revision tool. Each word has an audio file for pronunciation. This helps with memorizing the new words.

Why Take Notes?

Margaret Brooks Q Third Edition Author

Whether in the context of taking a phone message or listening to an academic lecture, note-taking is an essential skill for most language learners. In order to help learners acquire this skill, it is important to consider first the special challenges language learners face when trying to listen and take notes.

Short-term memory

One of the most self-evident issues is that it takes a language learner longer to process audio input than it does a native speaker. One reason for this is that a person's short-term memory is shorter in L2 than in L1. People employ short-term memory (usually measured in seconds) when processing audio materials. For example, when listening to a long sentence, the listener may need to hold the whole utterance in his/her mind and review it in order to comprehend it adequately. For the L1 listener this happens naturally, without the person being aware of it. However, for the language learner, this mental review process may not always be possible in the available time (Rost, 2005; Martin and Ellis, 2012).

Language structure

Another factor is the need for a mental map of the language, an internalized knowledge of the vocabulary and structures. A native speaker is grounded from childhood in the structures of the language and knows what to expect. We know, in fact, that people do not actually hear every word when they listen. But they hear enough to be able to parse out the meaning or reconstruct the sense quickly. They can "fill in the blanks" with words not actually heard.

Cultural expectations

Finally, in addition to being familiar with the semantic and syntactic aspects of the language, a listener may need to know of certain cultural expectations. Names of people and places and knowledge of events or history familiar to the average native speaker may be unfamiliar to the learner. All of these are things that may cause the listener to hesitate, stop listening, and try to think about what was said, while in the meantime the speaker continues. The listener then loses the thread and finds it difficult to bring attention back to the task.

How note-taking can help

In the face of these challenges, it may seem that adding note-taking to the listening tasks in the classroom may be a step too far for many. How, for example, can we expect high beginning students to listen and write at the same time? However, when the tasks are appropriate for the learners' level and carefully implemented, note-taking can actually improve comprehension.

Taking notes helps the student maintain focus and attention. It encourages a more engaged posture, such as sitting forward in the seat. The act of handwriting also aids in attention. Interestingly, studies have shown that students taking handwritten notes performed better on comprehension tests than those taking notes with an electronic medium such as a laptop or tablet. The reason for this is that handwriting is slower than typing. The writer has to summarize content, which involves more mental processing than faster typing. This in turn leads to better understanding and retention (Mueller and Oppenheimer, 2014).

The following are some examples of note-taking practice activities for the language classroom:

Preparing to listen

Although this is not a note-taking skill in itself, it is a necessary first step in the classroom. In real life, people do not usually approach something like a lecture or other listening context without some idea of what they will hear. They will have read assignments leading up to a lecture, received the agenda for a meeting, or at the very least know something about the topic.

We often put learners at an unfair disadvantage by starting a listening task by just saying, "OK, now listen to this." Pre-listening activities level the playing field by giving learners realistic preparation for the task. These can consist of things like pre-teaching key words, exploring students' prior knowledge of the topic, or short reading selections related to the topic.

Focusing on main ideas and key words

Some students have a tendency to equate note-taking with dictation and set out to try to write every word – something impossible even in L1. Activities that focus on writing only main ideas and key content words address this issue and help develop short-term, as well as long-term, memory. When students write down a few important words as they listen, seeing the words is a memory aid and helps them follow the flow of the ideas.

This strategy is essential when dealing with authentic listening texts at higher levels of language study and, by extension, in real-world situations. Authentic texts are likely to contain chunks of unfamiliar language that become "roadblocks" if students are not able to move past them and keep listening for key words.

Using a variety of organizational systems such as outlining, the Cornell Method, or even word webs

This enables students to follow the development of a speaker's ideas and "remember" them from start to finish as they listen. Presenting several ways of organizing notes shows that note-taking is essentially a personal task. Each person has to find a system that works for them.

Reviewing and adding to notes soon after a lecture or presentation

The purpose of note-taking in an academic setting is to provide students with a tool for study and review. In a business setting, notes from a meeting might be used to write a report or prepare a task list for a project. Notes consisting of just words and short phrases will not serve the purpose, as the note-taker will quickly forget how to put these together into a coherent record of a lecture or meeting, for example. In the classroom, students can review notes and expand what they have written. Also, even though there is no "rewind" function in a real-world lecture hall, it is useful practice for students to listen again and add to their notes.

Collaborating with others

Students often suffer from the mistaken notion that asking questions or getting help from others somehow diminishes them, makes them seem "stupid". They forget that even native speakers do this all the time and it probably comes naturally to them in their first language. In the classroom, students can compare notes with classmates, ask questions about things they didn't understand, and listen again to verify information.

Providing students with an opportunity to practice note-taking in a controlled and "safe" environment not only gives them a skill that will be useful in a variety of settings from the lecture hall to the meeting room, or even a doctor's office, but also helps them become more attentive listeners and improves general comprehension.

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Q TIPS
Note-taking tips for Q Third Edition

1 **Foster a welcoming environment for critical thinking**
Give attention to pre-listening activities. Teachers sometimes feel that this is "giving away" too much information and that the listening will not be a good "test" of students' skills. Remember that the listening tasks in *Q* are practice, not a test. Pre-teaching vocabulary and bringing out students' prior knowledge simply gives them tools that an L1 listener would bring to the task.

2 **Acknowledge the adult learner's prior experience in academic settings**
When presenting a strategy, ask if students have used a similar strategy in their L1 note-taking experience. For example, in Level 2 the note-taking strategy has students sketch plants for their notes. This is a quick way of recording information that would be difficult to put down in words. Ask if students ever use sketches in their L1 notes. For what subject matter would they be likely to do this?

3 **Do as much as possible to lower stress levels as students listen**
The controlled practice in each note-taking presentation in *Q* is an accessible activity designed to build confidence. For challenging material, you might want to "warm up" first. Tell students that you are going to play a portion of the recording and that you want them to tell you just one thing that they understood—even if it is only a few words. Play a short segment of the recording and then elicit answers from the class. This gives students a feeling of success and as they listen to their classmates' responses, they get more insight into the content of the listening.

4 **Encourage students to use charts and other graphics to organize their notes**
Elicit suggestions from students as to what type they might use. Does the listening describe a process? Then some kind of flow chart might be useful. Does it contrast two things such as pros and cons in an argument? Students might consider a T-chart.

5 **Provide feedback and follow-up activities after a listening**
In real life, students often compare notes after a class. Many *Q* activities replicate this process in the classroom, asking students to compare notes with a partner, ask and answer questions about what they have heard, or add more information to their notes.

Q Academic Writing

Dr. Ann Snow Q Series consultant, Writing

Writing is a complex language form practiced by users of all languages (both native and non-native) for everyday social and communicative purposes and, for many, for vocational, educational, and professional needs. It has been variously described as a *product*—a piece of writing with a particular form and the expectation of "correctness." And as a *process*—a journey that takes writers through stages where they discover they have something to say and find their "voice." From the cognitive perspective, it is seen as a set of skills and knowledge that resides within the individual writer and from the sociocultural perspective as a socially and culturally situated set of literacy practices shared by a particular community (Weigle, 2014). With these perspectives in mind, all teachers of writing must ask: How can I help my students improve their writing and what are best practices in the classroom?

Needs assessment

An important first step is undertaking a needs assessment, whether informal or formal, to learn what kinds of writing students need. From this assessment, a syllabus or curriculum can be developed or a textbook series selected that is a good match with your students' needs. Typically, the instructional sequence starts with *personal/narrative* writing in which students have to describe or reflect on an experience or event. This usually leads to *expository* writing in which students learn to develop a thesis statement and support this controlling idea in the body of their writing. *Analytic* or *persuasive* writing is the most challenging type of academic writing because students must learn to state and defend a position or opinion using appropriate evidence (Ferris, 2009). These kinds of academic writing tasks require students to become familiar with a variety of text types and genres.

Improving vocabulary and grammar

The academic writing class also provides the opportunity for students to fine-tune their grammar and expand their academic language vocabulary. Typically, by the time our second language students are engaged in academic writing, they have been exposed to the majority of grammatical structures in English (e.g. complete tense system; complex constructions such as relative clauses and conditionals), but they still may need to learn how to integrate these structures into their writing. They also need to match text types with the kinds of grammatical structures needed. For example, in order to write a cause/effect essay, students need to use subordinating clauses with *because* and *since* and they need to use the appropriate transitional expressions like *therefore* and *as such*. Students will most likely have learned these structures in isolation but now need extensive practice and feedback to use them accurately in their writing. In terms of academic vocabulary, students need to differentiate the types of vocabulary found in everyday usage (e.g. the verbs *meet* and *get*) with their more formal academic counterparts *encounter* and *obtain* (see Zimmerman, 2009, for many other examples.)

In sum, the English for Academic Purposes curriculum must integrate reading and writing skills, and, as mentioned, grammar and vocabulary. Cumming (2006) points out that a focus on reading can lead to writing improvement and an opportunity to learn discipline-specific vocabulary. It also gives students something to write about. Combining reading and writing also provides needed practice in analyzing different text types so students see the features of these models. These kinds of activities create opportunities for more complex tasks such as summarizing and synthesizing multiple sources. A curriculum that integrates reading and writing also exposes students to graphic organizers for reading comprehension which students can recycle for pre-writing (Grabe, 2001). Finally, students need many exposures to similar tasks in order to master the complexities of academic writing and build confidence in their abilities.

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Q TIPS
Academic writing tips for Q Third Edition

1 Use prewriting activities to generate ideas

Process approaches such as Quick Writes give students a chance to focus on their ideas for the unit assignment without being overly concerned with grammar, spelling, and punctuation at this early stage. You can then use open-ended questions to help students expand their ideas based on what they have learned in the readings and rethink and clarify their thinking before writing the unit assignment.

2 Model different kinds of texts

Students are shown the specific features of the text type required in the unit writing assignment (e.g. compare and contrast). Have students read and critique the model. Through the models, students develop awareness of the discourse features inherent in the kinds of writing required in each unit writing assignment.

3 Analyze good examples

Students learn to analyze different types of writing. For instance, they are provided with a list of features of a good summary, then they have to analyze and compare sample summaries and decide which samples best exemplify the features of a good summary.

4 Teach grammar in context

The grammar component tightly integrates the structure under focus with the text type of the unit. So, for example, students learn how to use the grammatical notions of parallel structure and ellipsis and then apply these to their unit writing.

5 Encourage strategic learning

Q encourages students to be strategic learners in all domains. Writing tips, for instance, guide students toward understanding the notion of unity in writing. Students learn that their thesis statements must be supported by details; doing so will create more coherence in their writing.

> **WRITING TIP**
> When you are freewriting, remember to write whatever ideas come to you. You can improve and revise your ideas later.

Using the Online Discussion Board

Notes and guidance on why and how to use the Online Discussion Board on *iQ Online Practice*.

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Many students beginning their academic study today come to campus equipped with strong technology skills, yet they soon discover that they need to make the transition from experienced users of technology for social purposes to effective users of technology for academic purposes. Becoming familiar with and engaging in a variety of genres is part of academic study and is critical for both native (NS) and non-native English speaking (NNS) students. For NNS students, however, "learning to function in the genres and with the discourse conventions of their discourse communities poses a particular challenge" (Cheng, 2010, p. 74). Academic writing is one of the many discourse communities in which ESL students need to function and to follow specific conventions. While ESL programs have long prepared students for traditional academic writing assignments, like essays and research papers, formal online writing is often neglected in ESL instruction despite the growing need for such preparation.

Reasons for not including formal online writing assignments can range from limited resources, instructors' lack of confidence in their own technology skills, and questions about the relevance of this type of writing. A potential consequence of not addressing such writing is that NNS students may be less prepared for these types of assignments, which are becoming more common within hybrid classes, or blended learning contexts, or even in courses that are fully online. If ESL programs want to ensure that they prepare ESL students adequately for academic study, they need to consider ways to incorporate online writing components into their classes. In addition to serving as a "pathway to academic literacy development" (Cheng, 2010, p. 74) for

ESL students, online writing, through discussion boards or blogging tools, can offer them a greater variety of language learning opportunities to motivate autonomous language learning experiences. The same advances in technology that have afforded academic instructors with a variety of media that students use to demonstrate comprehension and applications of course content also need to be considered as additional tools for ESL teachers to use in their language teaching. The *Q: Skills for Success* series follows a blended learning approach that prepares students for future success and incorporates the benefits of online academic writing that are specific to language learning (**Fig. 1**).

Among online technologies, the discussion board is one of the easiest tools to use (TeacherStream, 2009), but students need to use the technology appropriately for formal online writing. Consequently, instructors need to make sure that they use this type of writing assignment effectively. More specifically, discussion board interactions should not involve informal or brief, undeveloped contributions resembling text messages or chats; rather, they should be carefully structured to generate well-supported, reflective ideas. "[A]lthough generally shorter and narrower in focus than a traditional essay, discussion posts should be as coherent and scholarly in tone [as essays]" (Discussion posts, 2014, para. 1). In this paper, we will first address the learning benefits associated with the use of discussion boards and then outline a structured approach to implementing discussion boards that maximizes their benefits and reinforces the idea that writing in online threaded discussions should be treated as a legitimate formal genre of academic writing.
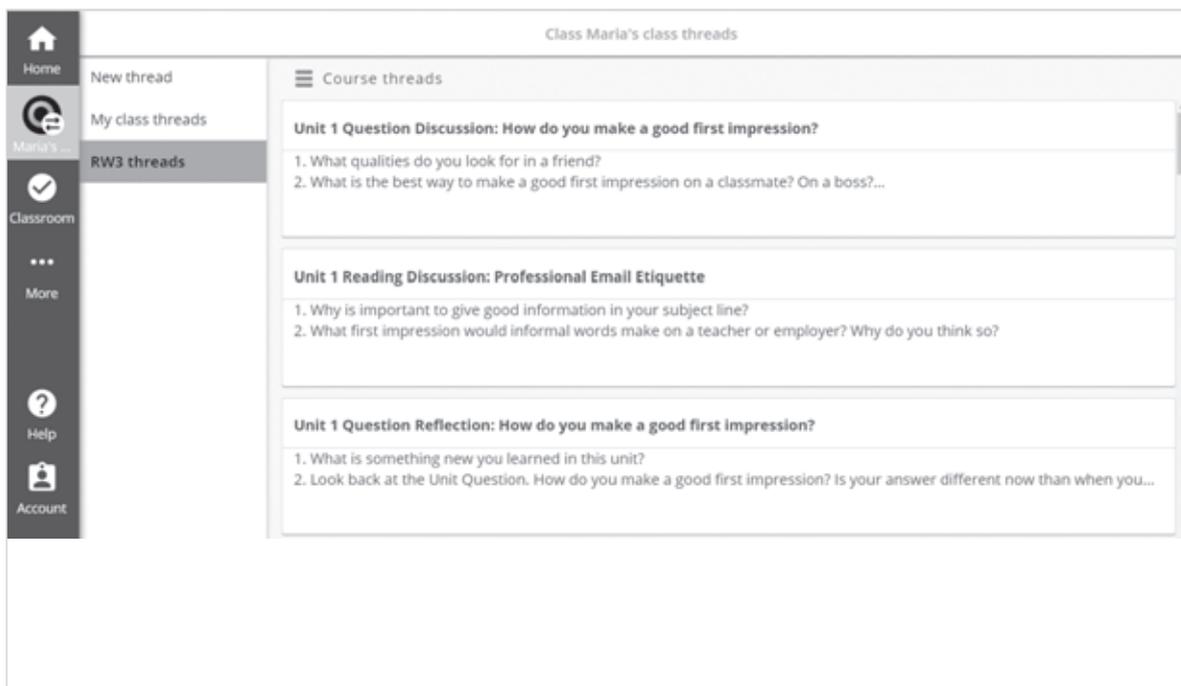
Fig. 1 *Q: Skills for Success* Third Edition, iQ Online Practice Class Discussion Board

Benefits

An examination of various sources that focus on the use of discussion boards with native speakers in educational settings (e.g., Blogs and discussion boards, 2014) shows that "the discussion board is the place where some of the most important learning can happen" (Generating and facilitating engaging and effective online discussions, n.d., p. 1), but only if implemented effectively. These types of posting activities typically include responses to and reflections on questions posed by the instructor or the textbook as well as replies to other students' posts. Some discussion board activities may also require students to integrate ideas from course materials (e.g., articles, lectures) or from their classmates' posts into their own posts.

Students in both content and language courses can benefit from discussion board writing activities. One outcome of these online tasks is that they prepare NNS students for future course work by developing their academic literacy skills (Cheng, 2010; Kingston, 2011) because a discussion board affords regular opportunities for students to practice their writing while following conventions for traditional types of academic writing, such as assignments with multi-paragraph structure, a main idea, and adequate support. At the same time, such regular practice affords NNS students additional opportunities for language learning: teacher feedback provides added focus on grammar, vocabulary, and mechanics; classmates' reactions to language choices increase students' awareness of issues in their writing, such as lack of clarity and ambiguity.

Students also hone their critical thinking skills through discussion board writing, partly because of the asynchronous nature of the tool: students can take more time to reflect on their ideas or conduct research before they craft a post than they can in face-to-face classroom interaction (TeacherStream, 2009; Wijeyewardene, Patterson, & Collins, 2013). This deeper reflection usually results in more complex responses to the discussion board questions (Wijeyewardene, Patterson, & Collins, 2013) than are possible in oral discussions that take place in the classroom. Students who are shy, and therefore less likely to speak in class, can find a voice and take part in conversations online (Meloni, 2011). The confidence that students gain in online interactions can also transfer into the classroom.

Another outcome is that discussion board writing increases students' sense of audience. Because their writing is posted online, students are aware that their classmates can access and read their posts. This means that the typical classroom writing audience of one (i.e., the

teacher) is expanded into an "authentic audience" (Blogs and discussion boards, 2014, para. 7) of many. Students are "exposed to a greater range and variety of interpretations of the topics they encounter in the course materials" (Goodfellow & Lea, 2005, p. 264). The heightened sense of audience and building of trust fosters a sense of learning community (Holland & Holland, 2014; Kingston, 2011; TeacherStream, 2009).

Considerations for the Teacher

Before implementing discussion board activities, teachers need to decide how and for what purposes these activities are going to be used. Traditionally, through their responses to questions posted by the instructor or through replies to specific classmates' posts, students can demonstrate authentic and meaningful use of language. Effective discussion board tasks require students to explain opinions and ideas clearly, to integrate their own ideas with those from other sources (including those of their classmates), to synthesize ideas from multiple sources, and to use appropriate language to react to other people's ideas. Through this process, instructors can guide students in demonstrating their knowledge of key concepts from class material, reflecting on and thinking critically about course topics, and working together to reach agreement on assigned topics (Lafford & Lafford, 2005; TeacherStream, 2009). Effective writing assignments in blended courses, both academic and ESL, seamlessly integrate discussion board writing prompts with the structure and content of the textbook or other class materials in one coherent framework. The authors of the *Q: Skills for Success* series follow this approach through their integration of the materials and activities in iQ, the online component of the series, and the Student Book.

Prior to implementation, instructors also need to assess the level of students' skill in using the online courseware that is available to them. To ensure that students approach the task with a clear understanding of the instructor's expectations, it is important for teachers to demonstrate to the class how to use the tool in an "orientation tutorial" (Wozniak & Silveira, 2004, p. 957) and allow the class to practice navigating the discussion board site before the

first formal assignment. Teachers should also have students explore model posts to discover the differences between discussion board writing and other forms of online communication with which students are more familiar (e.g., social media posts, text messages, email) (Generating and facilitating engaging and effective online discussions, n.d.).

Another consideration is the level of teacher participation in the posting activity. Based on students' level, instructors' choices can range from posting regularly—and, thus, serving as writing models for their students—to remaining an observer. However, at some point, all instructors need to shift from online participants who facilitate effective discussion board interactions to offline observers who monitor students' interactions (Online discussions for blended learning, 2009; TeacherStream, 2009) so that the class can learn to maintain effective communication that is independent of the teacher's guidance and modeling.

Since major goals of discussion board writing include developing critical thinking skills and reacting effectively and properly to the ideas of others, teachers should ensure that writing prompts contain questions that provide natural practice in these skills. Assigning a topic is not sufficient; good discussion board prompts encourage higher-order skills through *wh-* questions; questions that encourage students to reflect, interpret, analyze, or solve a problem; questions that draw out relevant personal opinion/experience; and questions that ask students to draw connections (Sample discussion board questions that work, n.d.). The materials in the *Q: Skills for Success* series, both the textbooks and the online supporting material, include such questions and allow instructors to pose their own questions/prompts based on these principles (**Fig. 2**).

Once teachers have decided which prompts to assign or which questions to post, they need to set expectations for and provide instruction in how to compose a quality post (Blogs and discussion boards, 2014; Boothon, 2012; Discussion posts, 2014; Goodfellow & Lea, 2005; Kingston, 2011; Online forums: Responding thoughtfully, n.d.; Wozniak & Silveira, 2004).

Fig. 2 Examples of discussion questions from *Q: Skills for Success* Third Edition

Teachers should plan to address the following elements:

- requirements for participation and time parameters as well as expectations with respect to quality, length, and level of formality;

- a framework for composing well-developed paragraphs that address multiple questions, a format that tends to be characteristic of discussion board writing in academic courses; in ESL contexts, this framework should be designed to reflect the proficiency level of the students, progressing from the simple paragraph level to multiple integrated paragraphs;

- appropriate responses to classmates' posts that employ respectful and formal language, especially when there is disagreement about ideas;

- thoughtful responses to classmates' ideas that go beyond simple statements like "I agree with you," which are not constructive and do not promote further interaction among the students; responses that build on classmates' contributions and show critical thinking describe personal experiences, extend ideas to other contexts, and/or support agreement or disagreement with sufficient examples; and

- effective incorporation of ideas from outside sources, such as class readings, lectures, and other material, and integration of ideas from multiple classmates' posts, especially when students are at higher levels of proficiency.

The discussion board activities in iQ gradually increase in complexity by level and require students to show increased skill in reflecting these elements of effective online writing.

In order for students to view discussion board writing as a legitimate academic genre and a relevant component of a course, it is critical that teachers provide routine, structured feedback (Blogs and discussion boards, 2014; Kingston, 2011; TeacherStream, 2009). One common approach to providing constructive feedback is through rubrics that assess quality, quantity, and language use as well as the observance of proper posting netiquette, which is defined as polite behavior for communicating online in a public forum. It is important that students become familiar with the writing criteria that their

teacher will assess; in the iQ Discussion Board Teacher Pack, one of the reproducible worksheets is a discovery activity in which students apply a sample rubric to a model post. For the teacher's convenience, reproducible rubrics are also included in the iQ Discussion Board Teacher Pack. Once students are aware of the criteria in the rubrics, instructors can encourage them to use these rubrics as pre-submission checklists and for informal evaluations of their own writing.

Conclusions

When used effectively, discussion board activities offer NNS students a platform for "rehears[ing]" academic writing (Cheng, 2010, p. 74) and composing "thoughtful, constructive responses" to others' ideas, with which they may or may not agree. Students are likely to encounter the need for such language functions in future academic and professional contexts (Online forums: Responding thoughtfully, n.d., para. 7). Given that gaining proficiency this genre of writing poses specific challenges to language students, it is essential to implement online academic writing within ESL courses.

Regardless of the extent to which instructors incorporate discussion board writing with other required academic writing assignments, they need to guide students in establishing connections between their learning in the online environment and their face-to-face interactions in the classroom (Wozniak & Silveira, 2004). These connections ensure that ESL students understand that discussion boards are an important learning tool that they can employ and through which they can improve their academic language skills. For these reasons, discussion board writing activities are a valuable tool in ESL instruction.

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Teaching Notes

Objectives

A fundamental objective of a Discussion Board writing activity is for students to gain awareness of the conventions applied in the genre of online academic writing and to practice writing in this genre.

At the beginning of a unit, students use the Discussion Board activity to further activate prior knowledge about a new unit theme after discussing the initial Unit Questions and listening to *The Q Classroom* online. Students are again directed to the Discussion Board after the iQ Online Reading Comprehension activity in each unit to discuss the online text. At the end of a unit, the Discussion Board tasks provide opportunities for students to apply content knowledge, grammar structures and vocabulary, as well as writing strategies that they learned in the unit.

All the Discussion Board questions are designed to encourage critical thinking. Instructors can decide if they would like their students to respond to all of the given questions or select specific questions which they want their students to address. Additionally, instructors can post their own questions to which students respond.

Teacher's Pack Organization

Prior to introducing the Discussion Board to your students, it is necessary to familiarize yourself with the contents of the Discussion Board, the specifics of its navigation as well as deciding on an implementation strategy. These teaching notes discuss all three items.

In order to help you maximize the efficacy of the Discussion Board, additional resources have been provided. These will be referenced and explained within these teaching notes: grading rubrics, teacher navigation instructions, printable student navigation instructions ("Posting to the Discussion Board") and a student worksheet for classroom use ("Example Discussion Board Post," which consists of "Part One: Responding to a Discussion Question," and "Part Two: Responding to a Classmate's Post").

Implementing the Discussion Board
Discussion Board Content

The Discussion Board contains three threads per unit. The Unit Question Discussion takes place at the beginning of the unit and contains a few questions to further the discussion of the Unit Question after completing *The Q Classroom* activities in the Student Book. Next is the Reading Discussion thread which accompanies the Reading Comprehension activity in *iQ Online*. This thread encourages students to engage with the topic of the online reading text. Finally, the Unit Question Reflection is provided at the end of the unit in order to reflect upon what the student has learned. In addition, the teacher may create new threads either by using the supplemental questions provided, the Challenge Questions, or any other question he or she deems appropriate.

Teaching Strategies

In terms of teaching strategies, the teacher must decide upon his or her level of involvement. You should decide if you want to participate in the online discussions or if you only want to read and evaluate your students' posts. If you post to the discussions, students can be encouraged by your engagement, but if you remain a reader, you can retain the focus on the students' writing and ideas.

In Level 5, students compose two basic types of posts: an initial reaction to the assigned unit questions and a response to a classmate's post. Depending on the ability level of the class, the teacher can assign one or both of the optional Challenge Questions. In addition to the initial post to these Challenge Questions, the teacher can decide to assign replies to Challenge Question posts.

The structure of both types of posts should follow similar structure in that they should have a brief introduction, body with support (approximately 2 to 3 paragraphs), and a brief conclusion. A strong post contains about 400 to 450 words; clearly, this suggested length needs to

be adjusted to your students' level. If you want to make the task more challenging, you can require that students refer to specific sources, such as the readings from the unit, and/or sources from outside the textbook. These sources may be source that have been provided by you or that you have required your students to locate (see example in Part One of the Student Worksheet).

In a response to a classmate's post, it is again critical that students present specific ideas in support of their main points. This means that the student's reply is directly connected to the ideas in the classmate's post, and this connection needs to be made explicit through reference to the original writer's words. For example, you can encourage students to use reporting signals, such as "You describe …"; "Your example of … is …"; or "You also refer to … ." You can provide other examples as appropriate. If you have students use outside sources, they will also need to use appropriate reporting conventions that you have taught them.

In a more advanced alternative to a response to a single classmate, you can require your students to read and respond to ideas from multiple classmates and to use references to those classmates' ideas in order to support their own points. This is a more challenging task because students have to read and synthesize multiple ideas. Additionally, you can require the use of outside sources in combination with classmates' ideas, which students need to paraphrase or quote. It is up to you to decide the complexity of this task by setting a minimum number of required references to classmates as sources, and/or requiring the additional use of outside text sources. The following is an example of such a response.

Sample Response – Incorporating Multiple Classmates' Ideas

[1] The connections between climate change and natural disasters do not appear to be evident to everyone. Many scientists have studied occurrences of floods, droughts, and hurricanes, and they do not all agree that climate change is responsible for the greater frequency of these disasters.

[2] First, while floods appear more frequently in some parts of the world, other parts of the world experience more droughts. As Yuji explains in her post, the southern region of China has had more floods during her lifetime than during the lifetime of her parents. Similarly, Adi states that in his country, Indonesia, the incidences of flooding have increased in recent years, leading to economic problems for that region. In contrast, Nahla reports that she learned from a recent article in National Geographic that the western parts of the United States have suffered from droughts for the past several years. It seems that different parts of the world are affected differently: Southeast Asia has seen increased floods, but parts of North America have to deal with dry conditions.

[3] Another natural disaster that may or may not be connected to climate change is hurricanes and typhoons. Catalina confirms in her post that some scientists doubt "a direct connection" between hurricanes and climate change. But it may be difficult to look at any hurricane trends if one looks only at the last few years. Most scientists actually examine long-term hurricane activity over the past 100 years or more instead of short-term variation (Hurricanes: Science and society, 2015); this point is made by Ahmed in his post, too. However, there is proof for increased temperatures on our planet over the past 100 years, so I do think that this increase in temperature is also related to an increase in weather-related events.

[5] It I clear that climate change is playing a major role in many areas of our lives, according to the examples that my classmates have given, but it is also clear that we need much more research on these events. I think that it is most important for us to understand our role in changing the climate and take serious steps toward changing our behavior.

Rubrics have been included to help grade the student's posts and their replies to a classmate's post. It is important that students write an effective response that includes a variety of sentence structures used correctly and uses formal language. It is important that students use the Discussion Board to express themselves, and do so in a way that is appropriate for the classroom context.

In addition to using the rubrics, assess the students' posts by printing them out or making electronic copies, and adding questions, comments, and other feedback. With students' permission, you can use good posts as models to illustrate strategies for effective writing. You can also collect language use examples from students' posts to illustrate grammar points and use these for group editing practice.

Classroom Instruction

Prior to First Post: Example Discussion Board Post Worksheet

Included in the student materials are instruction on the use of the Discussion Board as well as a two part student worksheet on how to write good posts. In Part One, "Responding to a Unit Discussion Question," there is an example of a discussion board post that you can review with students to discover the structure and content of an effective post and to see how the instructor will apply the evaluation rubrics. In Part Two, "Responding to a Classmate's Post," there is an example of a student's response to the classmate's post from Part One. The example response models the structure and the language that are appropriate for responding to other students' posts.

You may choose to do Parts One and Two of the worksheet together or separately. In either case, be sure to review the instructions on how to post to the Discussion Board. Use the page entitled "Posting to the Discussion Board: Student Instructions." Follow up with a test post to ensure that all students know how to use the tool properly.

Part One: Responding to a Discussion Question

1. After talking in class about the Unit Question and the Unit Question Discussion questions, tell students that they will extend those ideas that they discussed in an assignment outside of class.

2. Distribute the student worksheet, "Example Discussion Board Post," to students. Tell them that they are going to learn how to write on a discussion board online and share information with their classmates and instructor when they are not in the classroom.

3. Review the sample Unit Question Discussion. Start with the unit academic subject area, Climate and Environment. Then, review the Unit Question and the Unit Question Discussion questions with students. Point out that, in addition to the overall Unit Question, there are two other questions that the students should address. Note that this is only an example unit and does not appear in the book.

4. Have students read the example post and answer worksheet questions 1 through 6.

Have students compare their responses with a partner before checking answers with the whole class. If possible, project the post on the classroom screen, and highlight the relevant parts as you identify and discuss them with the class.

5. Review the discussion board rubric with students in task 7 of the worksheet. Have students apply the rubric to the example post and try to explain why they would give a certain rating in each category.

6. In the last task on the worksheet, the "Follow-up" task, have students brainstorm, in groups or pairs, ideas for responding to a new example question. Debrief with the whole class and check that students understand the process.

7. *Optional*: Review instructions on how to post a response to a classmate's post. Use the page entitled "Student Instructions: Posting to the Discussion Board."

Assigning the First Discussion Board Post

1. Assign the first Unit Question Discussion response, and indicate the deadline for the

post. If you want students to use outside sources as support for points in their post, remind them to include those references.

2. After all responses have been posted, have students read all of their classmates' posts. Then in class, have students discuss the ideas in the posts to find commonalities and differences or to put ideas into possible categories.

3. Use the same process for the Reading Discussion and the Unit Question Reflection.

4. *Optional:* At the end of each unit, the teacher can assign one or both of the Challenge Questions. Follow the same process as for the other assignments. See complete list of Challenge Questions for all units.

Part Two: Example Response Worksheet

Prior to the first response assignment, it will be helpful if the teacher discusses with the class the appropriate approach to responding to classmates' ideas. Part Two of the sample worksheet, "Responding to a Classmate's Post," provides an example response to a classmate's post and comprehension questions. Three major techniques that students can use in a response task could include "agreeing/disagreeing" with ideas in the original post, or "making connections" between ideas in the original post and own knowledge/experience, or "applying" ideas from the original post to a new context. Other useful points to consider include:

• Using formal and polite language

• Avoiding judgments – both positive and negative, especially if these judgment are forced on the writer and not his/her ideas

• Providing support for a response by referring to specific points from the classmate's post, adding own examples as evidence, and/or referring to ideas from outside sources

1. Distribute Part Two of the example Discussion Board worksheet, "Responding to a Classmate's Post," to students. Tell them that they are going to learn how to respond appropriately to a classmate's writing.

2. Have students quickly review the original example discussion board post in Part One.

3. Have students read the example response and answer worksheet questions 1 through 6. Have

students compare their responses with a partner before checking answers with the whole class. If possible, project the post on the classroom screen, and highlight the relevant parts as you identify and discuss them with the class.

4. Review the discussion board rubric with students in task 7 of the worksheet. Have students apply the rubric to the example response and try to explain why they would give a certain rating in each category.

5. In the last task on the worksheet, the "Follow-up" task, have students brainstorm, in groups or pairs, ideas for another response. Debrief with the whole class and check that students understand the process.

6. *Optional*: Review instructions on how to post a response to a classmate's post. Use the page entitled "Student Instructions: Posting to the Discussion Board."

Assigning the First Response to a Classmate's Post

1. Have students read all their classmates' posts. Assign students a response task. Indicate the deadline for the response. Options for response tasks include the following:

   a. Students make their own choice when selecting a classmate's post to which they respond. (It is helpful if you require that students respond to a classmate who has not yet received any replies.)

   b. Pair students with a partner and require that they read and respond to their partner's post.

   c. In a more advanced group of students, you can assign students to respond to more than one classmate. For example, students can be asked to respond to a classmate with whom they agree and to one with whom they disagree.

   d. Alternatively, in a more advanced class, you can require that your students synthesize and incorporate ideas from multiple classmates to support their points.

2. After all responses have been posted, have students read their classmates' response or responses. Then in class, if necessary, have students discuss any unclear, surprising, or additional points from the responses.

3. Use the same process for the Reading Discussion and the Unit Question Reflection.

4. *Optional:* At the end of each unit, the teacher can assign one or both of the Challenge Questions. Follow the same process as for the other assignments. See the complete list of Challenge Questions for all units.

Discussion Board Instructions

Before introducing this tool to your students, review "Posting to the Discussion Board: Student Instructions" to familiarize yourself with the online writing process. The student instructions are included in the student materials.

After completing the "Example Discussion Board Post" worksheet and reviewing the included rubric with your class, go over the student instructions with the students. If you have computer projection in the classroom, you may go online and demonstrate this process to the students.

Remind students that when they post to the Discussion Board, they need to make sure that they choose the correct Unit number and the correct question.

Logging in to the Discussion Board

1. Log in to iQ Online Practice.
2. Choose your class (under your level).
3. Choose Discussions.

Responding to a Classmate's Post

If you wish to participate in a Unit Discussion, you can follow the same instructions that the students use.

Creating a New Discussion Topic

All Unit Question Discussion, Reading Discussion, and Unit Question Reflection questions are already on the Discussion Board site. However, if you want to assign Challenge Questions (refer to the included list of Challenge Questions), or if you want to pose questions of your own, follow these steps:

1. Choose New Thread.
2. In the subject line, write: "Unit X: Challenge Question 1," or "Unit X: (Your own writing topic)." Note: It is important that you identify the unit number as this will not be automatically added.
3. Copy and paste your selected Challenge Question, or type your own question, in the text box.
4. Choose Send.

Deleting a Post

As the instructor, only you have the ability to delete threads and individual replies, including entire Discussions. However, before you click Delete, be certain that you want to perform this action as it cannot be undone.

If you want to delete a single student post in a discussion or an individual response to someone else's post, go to that post, and choose the delete icon.

Suggestions for Using the Discussion Board Assignments

1. Good academic practice includes planning and carrying out online writing assignments offline first. By drafting and saving a post using a word-processing program, students can review and make changes to their writing before uploading the post. This practice also encourages another important academic skill, which is to keep a saved copy of one's writing.

2. Because your students cannot delete any posts from the Discussion Board themselves, they will need to contact you to delete a post for them if they made a mistake or posted to the wrong Discussion. Advise your students to follow whatever process you deem appropriate; for example, you can have students send you an email with a request to delete a post.

3. Review your students' posts regularly and in a timely fashion so that you can address issues as they develop or delete inappropriate posts.

Rubric: Response to Discussion Board Prompt

Name: _____   Date: _____

20 = Completely successful (at least 90% of the time).
15 = Mostly successful (at least 70% of the time).
10 = Partially successful (at least 50% of the time).
0 = Not successful.

Writing a Discussion Board Post	20 points	15 points	10 points	0 points
The post includes a clear introduction, body, and conclusion.				
The post answers the question(s) clearly and completely.				
The post has relevant and specific explanations and examples.				
The supporting explanations and examples are sufficient.				
The post shows careful thinking about the topic.				
The post uses a variety of sentence structures correctly.				
The post includes correct grammar structures from the unit. *				
The post includes appropriate vocabulary from the unit.*				
The post includes formal and polite language.				
The overall length of the post is appropriate.				
Optional: The post includes references to one or more sources as support.				

* These criteria are for Unit Reflection and Challenge Question Posts

Total points: _____ out of _____

Comments:

Rubric: Response to Classmate's Post

Name: _____   Date: _____

20 = Completely successful (at least 90% of the time).

15 = Mostly successful (at least 70% of the time).

10 = Partially successful (at least 50% of the time).

 0 = Not successful.

Writing a Discussion Board Response	20 points	15 points	10 points	0 points
The response includes a clear introduction, body, and conclusion.				
The response uses clear and specific ideas from the classmate's post.				
The response shows careful thinking about the classmate's ideas.				
The response includes one or more of the following: agreement/ disagreement/ example from personal experience.				
The supporting explanations and examples are sufficient.				
The response uses a variety of sentence structures correctly.				
The response includes correct grammar structures from the unit.*				
The response includes appropriate vocabulary from the unit.*				
Optional: The response includes references to one or more sources as support.				

* These criteria are for Unit Reflection and Challenge Question Posts

Total points: _____ out of _____

Comments:

Challenge Questions

You may choose to assign these Challenge Questions for students to respond to at the end of a unit. You will need to post the Challenge Question for each unit yourself as a new thread or threads.

Unit 1: Education

Unit Question: *What is the value of learning a new language?*

1. Intrinsic motivation involves wanting to do something for personal goals such as learning about a culture, meeting new people, and growing as a person. Extrinsic motivation involves wanting to do something for practical goals such as finding a higher paying job, winning a prize, or avoiding punishment. Which kind of motivation is better for language learning? Provide an example to illustrate your response.

2. What is the best way to learn a new language? What tips or strategies would you recommend to someone who wanted to learn another language?

Unit 2: Business

Unit Question: *How is work changing?*

1. What are some jobs that haven't changed much over the years? Why haven't they changed? Do you think these jobs will still be the same 50 years from now?

2. The readings in this unit refer to the new gig economy, and some of the positives and negatives of working in that economy instead of having a traditional job. Do you think that the gig economy is going to continue to grow in the future? Why or why not?

Unit 3: Media Studies

Unit Question: *How well does a picture illustrate the truth?*

1. Photographs of people are often altered for aesthetic or artistic purposes, and the intentions of the person altering the image may be completely positive. However, when do such alterations cross the line and become unethical? Give specific examples to illustrate your point.

2. Technology has made it possible for us to alter photographs of ourselves with great ease. When is it acceptable to do this, and when is it not (or less) acceptable? Give specific examples and reasons.

Unit 4: International Relations

Unit Question: *Why is global cooperation important?*

1. With increasing globalization, cooperation on a worldwide scale has become easier and more common. However, what are the disadvantages of global collaboration, and when might such cooperation not be necessary? Explain.

2. How has your own country benefited from or taken part in international cooperation? Describe the collaboration and evaluate its outcomes.

Unit 5: Urban Planning

Unit Question: *What makes a public place appealing?*

1. As international travel is becoming more common, airports have had to meet growing and diverse demands from travelers who spend more time in these shared spaces. What ideas from both readings in the unit can you apply to airport design? Give specific examples, and explain how these examples reflect the information in the texts.

2. In the unit, you learned about the growing popularity of third places in public spaces. In the future, what might be the characteristics of a "fourth place"? Give your own definition and provide details of such a space.

Unit 6: Ecology

Unit Question: *How can we turn trash into treasure?*

1. Reading 2 introduces the idea of the repair café and describes the benefits derived from fixing items yourself. What skills or knowledge can people gain from these activities that can also be applied to other areas of their lives? Give specific examples in your explanation.

2. In many neighborhoods, people have organized clubs or have started initiatives for recycling and/or repurposing programs. Why might these community-driven initiatives be more successful and long-lasting than programs instituted by their city, town, or community association? Explain.

Unit 7: History

Unit Question: *How do new discoveries and inventions change the world?*

1. Is innovation always positive? What are some examples of new discoveries or inventions that have had a negative impact on the world? Why was that impact negative?

2. Think about a major discovery or invention from the past 200 years. What would the world be like today without that discovery or invention? Be descriptive in your response.

Unit 8: Health Sciences

Unit Question: *What affects people's energy levels?*

1. Stress is identified in the first reading as having a negative impact on people's energy levels. What are some of the major causes of stress? The second reading describes how winter can also make people feel more tired. Can winter also be stressful? Explain your answer.

2. Describe effective ways of dealing with stress and boosting energy that are *not* outlined in the readings. For whom are your techniques more appropriate? Would they work for everybody? Why or why not?

Unit Specific Notes

Unit 1: Education

Challenge Question 2

What is the best way to learn a new language? What tips or strategies would you recommend to someone who wanted to learn another language?

Ask students to work with a partner or in small groups to think about what they do to help them learn English and then make a list of methods, strategies, and techniques that have been successful for them. Once students have some ideas, have them share them with the class and explain why the methods, strategies, and techniques they use are effective.

Unit 3: Media Studies

Challenge Question 1

Photographs of people are often altered for aesthetic or artistic purposes, and the intentions of the person altering the image may be completely positive. However, when do such alterations cross the line and become unethical? Give specific examples to illustrate your point.

Have students consider the photo editing technology that is readily available on smartphones, tablets, and computers; ask students when they might alter their own photographs and for what purposes.

Unit 5: Urban Planning

Challenge Question 1

As international travel is becoming more common, airports have had to meet growing and diverse demands from travelers who spend more time in these shared spaces. What ideas from both readings in the unit can you apply to airport design? Give specific examples, and explain how these examples reflect the information in the texts.

Help students brainstorm the services and facilities that can be found in major airports around the world. Then have students review the main ideas from both readings. Point out how the first reading examines changes in the design of public spaces as a result of new lifestyles and modern technology and how the second reading focuses on ideas for sharing a public space, in this case a road, by different types of users.

Unit 7: History

Challenge Question 2

Think about a major discovery or invention from the past 200 years. What would the world be like today without that discovery or invention? Be descriptive in your response.

Have students list some of the major discoveries and inventions from the past 200 years, such as the internal combustion engine, the light bulb, and the mobile phone. Now ask them to imagine what the world would be like if that discovery or invention had never been made. You can start them off with the first sentence of their responses, such as: If cars hadn't been invented, it would be much harder to travel from place to place.

Posting to the Discussion Board: Student Instructions

When you post to the Discussion Board, make sure that you choose the correct unit number and the correct thread.

Logging in to the Discussion Board

1. Log in to iQ Online.

2. Choose your level.

3. Choose More (…) and then choose Discussions. Then choose Level 5 threads. (Or choose My class threads for posts by your teacher or other students.)

OR

Enter Practice and go to the Unit Question Discussion (the first activity) or the Unit Question Reflection (the last activity). Access the Discussions from the link included in these activities.

Replying to a Post

1. Choose the unit and discussion question that your teacher assigned.

2. Read the question or questions carefully. If responding to another student's post, read their response carefully.

3. Choose Add Comment.

4. Type your answer to the question or questions. Follow your teacher's instructions on how to write a good reply. If responding to another student, be sure to include their name so it is clear who you are responding to.

5. Read through your reply carefully: check the organization of your ideas, and check your spelling and grammar.

6. Choose Send.

Creating a New Discussion Topic

1. Choose New Thread.

2. In the subject line, enter the name of the thread. Be sure to choose a name that indicates clearly what the subject of the thread is (by including the unit number, for example).

3. Write your comments.

4. Choose Send.

Warning: You cannot delete your writing after you choose Send. Only the teacher can delete a thread or an individual response.

Name: _____   Date: _____

Example Discussion Board Post

Part One: Responding to a Discussion Question

Directions: Read the questions and the discussion board post. After that, answer the questions about the post. Write a well-developed response, including a brief opening, properly structured body paragraphs, and a brief closing. Follow your teacher's specific instructions.

Example Unit: Climate and Environment

Unit Question Discussion: How does climate change affect natural disasters?

1. Many scientists argue that climate change is causing more severe and more frequent weather-related natural disasters. What are some examples of such natural disasters?
2. What might be some consequences of these examples?

[1] There are many types of natural disasters that happen all over the world, but the ones that are most significant and that are most likely connected to climate change are droughts, hurricanes, and floods.

[2] One example of a natural disaster worsened by climate change is drought. I learned from our unit reading, "Up Close with Global Climate Change", that California has had a serious drought problem; it has not rained very much in some parts of the state for over three years. Also, there has apparently been decreased snowfall in the mountains. As a result, Californians have to be careful with their water use, and farmers and ranchers are losing their crops and even their animals are suffering.

[3] Another problem caused by climate change is hurricanes. There have been many more hurricanes worldwide than in the past; moreover, those hurricanes seem to be more severe, causing more problems for a larger number of people. In addition to the destruction of homes and businesses, people may not have power for long periods of time, and the government has to spend great amounts of money to clean up and repair all the damage, especially in cities along coastlines. While the website for the Center for Climate and Energy Solutions states that there is no clear evidence that the frequency of hurricanes is the result of climate change, these experts contend that the effects of hurricane events are likely to be intensified by higher ocean surface temperatures and increased sea levels.

[4] A third common disaster resulting from climate change is floods. Floods are often caused by heavy rainfall. A recent web article published by the Union of Concerned Scientists confirms that "heavy rain and flooding … are consistent with a warming planet, and such events are expected to become more common over time." Although I have no personal experience with this kind of natural disaster, my classmate from Indonesia told me that his country has had major flooding in the recent past. He mentioned that one of the biggest problems is with public transportation. Trains and busses cannot run, and because people in big cities depend on public transportation for all their needs, those shutdowns cause chaos and economic losses.

[5] Even though drought, hurricanes, and floods can occur for other reasons, one obvious cause is change in our global climate. People do not pay attention to rising costs in energy, but perhaps they can become more aware of this growing problem if their house is destroyed by an enormous hurricane that is caused by rising temperatures in the oceans.

1. How many major parts does this post include, and what is the purpose of each part? (Compare the post to the basic structure of an essay.).

    a. What is the purpose of paragraph 1?

    b. What is the purpose of paragraphs 2 through 4?

    c. What is the purpose of paragraph 5?

    Has the writer answered the questions that are in the prompt?

2. In paragraphs 2 through 4, number each example of a natural disaster caused by climate change. How many examples did you find?

3. Go back and underline the details that explain these examples in these paragraphs; then, double-underline the consequences of each natural disaster.

4. Read through paragraphs 2 and 4 again and search for a examples in which the writer refers to a source in his/her support. Circle the words that refer to a source. Then, indicate what type of source is used in each instance; write the paragraph number next to the appropriate source type:

    a. _____ Quote of an idea from an outside source

    b. _____ Paraphrase of an idea from an outside source

    c. _____ Paraphrase of idea from the unit reading

5. Reread the first paragraph, and circle the words that tell you what the body paragraphs will focus on; then, go to the final paragraph and see if you find the same points.

6. What is the purpose of the last sentence?

7. Review the rubric. Use the rubric to give a score for the post above.

20 = The Discussion Board writing element was completely successful (at least 90% of the time).

15 = The Discussion Board writing element was mostly successful (at least 70% of the time).

10 = The Discussion Board writing element was partially successful (at least 50% of the time).

0 = The Discussion Board writing element was not successful.

Writing a Discussion Board Post	20 points	15 points	10 points	0 points
The post includes a clear introduction, body, and conclusion.				
The post answers the question(s) clearly and completely.				
The post has relevant and specific explanations and examples.				
The supporting explanations and examples are sufficient.				
The post shows careful thinking about the topic.				
The post uses a variety of sentence structures correctly.				
The post includes correct grammar structures from the unit.				
The post includes appropriate vocabulary from the unit.				
The post includes formal and polite language.				
The overall length of the post is appropriate.				
Optional: The post includes references to one or more sources as support.				

Total points: _____ out of _____

Follow-up:

With a partner, or in small groups, brainstorm on one of the topics below. What ideas will you include in your post?

1. What consequences of climate change have you noticed in your country?

2. Explain why you think these consequences result from climate change?

Example Discussion Board Post

Part Two: Responding to a Classmate's Post

Directions: Now read the sample response to the above discussion board post. After that, answer the questions about the response.

Sample Response from a Classmate

¹ Andres, you mention some interesting ideas in your post. You describe what you consider "the most significant" examples of natural disasters that you believe are becoming more frequent and that you believe are caused by climate change.

² Your example of increased floods is especially meaningful to me because this is a type of disaster that my country, China, faces nearly every year. The southern region of China experiences floods for different reasons, but many scientists believe that climate change is a major factor in the frequency of the floods. I can certainly say that during my lifetime, there have been more floods than during my parents' lifetimes.

³ You also refer to droughts as a result of lack of rainfall and snowfall, and you give the example of California. I think that lack of clean water can also be impacted by global climate change. For instance, I have learned that small island nations are struggling not with droughts, but with rising sea levels. That change in sea level causes salt water to invade fresh water supplies, and this makes water supplies unusable for humans, animals, and crops. The outcome is similar to that of a drought: there is no water.

⁴ Although I can relate to most of your points in your post, I wonder if your three examples of climate change related disasters are really the most significant. I agree that hurricanes, droughts, and floods lead to devastating consequences, but I feel that the rising occurrence of major wildfires worldwide makes this type of disaster just as significant. According to a NASA scientist who was interviewed in a documentary that I saw, the number and intensity of wildfires is predicted to increase in at least two major regions in the U.S. I have also read about the problem of wildfires in various articles.

⁵ It is clear that climate change is playing a major role in many areas of our lives, not just in weather, but it is also clear that we need much more research on these events. I think that it is most important for us to understand our role in changing the climate and take serious steps toward changing our behavior.

1. How many major parts does this response include, and what is the purpose of each part? (Compare the response to the basic structure of an essay.).

    a. What is the purpose of paragraph 1?

    b. What is the purpose of paragraphs 2 through 4?

    c. What is the purpose of paragraph 5?

2. Look at the sentences in paragraph 1.

    a. What is the purpose of those sentences?

    b. Why does the writer start in this way?

3. Look through the response and identify one or more specific ideas that come from the original writer's post. <u>Underline</u> those ideas, and label then A, B, C, etc. How many ideas did you find?

4. How does the writer respond to the classmate's post? Review the following techniques. Then, reread paragraphs 2 through 4, and do the following: write the number of the paragraph next to the technique that the writer used in the response; if you do not find an example of a technique, write "X".

   a. _____ He or she agrees with an idea in the classmate's post.

   b. _____ He or she disagrees with an idea in the classmate's post.

   c. _____ He or she uses an example from personal experience that connects to an idea in the classmate's post.

   d. _____ He or she applies an idea from the classmate's post to another context.

5. Find an example of how the writer used a source as support for his/her idea. Circle the words that refer to a source.

6. Find three examples of formal and polite language that the writer uses in the response.

   a. _____

   b. _____

   c. _____

7. Review the rubric. Use the rubric to give a score for the response above.

> **20** = The Discussion Board writing element was completely successful (at least 90% of the time).
>
> **15** = The Discussion Board writing element was mostly successful (at least 70% of the time).
>
> **10** = The Discussion Board writing element was partially successful (at least 50% of the time).
>
> **0** = The Discussion Board writing element was not successful.

Writing a Discussion Board Response	20 points	15 points	10 points	0 points
The response includes a clear introduction, body, and conclusion.				
The response uses clear and specific ideas from the classmate's post.				
The response shows careful thinking about the classmate's ideas.				
The response includes one or more of the following: agreement/ disagreement/ example from personal experience.				
The supporting explanations and examples are sufficient.				
The response uses a variety of sentence structures correctly.				
The response includes correct grammar structures from the unit.				
The response includes appropriate vocabulary from the unit.				
The response includes formal and polite language.				
Optional: The response includes references to one or more sources as support.				

Total points: _____ out of _____

Follow-up:

With a partner, or in small groups, brainstorm on another response to the original post. What ideas will you include in your response?

Teaching Notes

Unit-by-Unit teaching notes offer Expansion Activities, Multilevel Options and Background Notes to help you teach with *Q: Skills for Success Third Edition*.
Also includes Unit Assignment Rubrics.

Background Note

UNIT OPENER pages 2–3

The large photo on pp. 2–3 shows a red bicycle next to a post with welcome signs in different languages in Namibia.

Expansion Activity 1

UNIT QUESTION page 3

1. Introduce the Unit Question: *What is the value of learning a new language?* Ask related information questions, or questions about personal experiences, to help students prepare for answering the Unit Question. For example, ask: *What languages have you learned? When do you use them? How have they helped you?*

2. Read the Unit Question aloud. Tell students: *Let's start off our discussion by listing benefits of learning a new language. Think about benefits to both your personal and professional life.*

3. Seat students in small groups and direct them to pass around a sheet of paper as quickly as they can, with each group member adding one item to the list. Tell them they have two minutes to make the lists, and they should write as much as possible.

4. Call time and ask a reporter from each group to read the list aloud.

5. Use items from the list as a springboard for discussion. For example: *Let's talk about job opportunities. What kinds of jobs can you get when you speak multiple languages? How can it affect your pay?*

Multilevel Option 1

READING 1: How Learning a New Language Improves Tolerance
C. VOCABULARY page 4

1. Pronounce each vocabulary word and have students repeat them. Listen for correct syllable stress.

2. Draw students' attention to the part of speech listed next to each word.

3. Invite them to work with a partner to locate each word in the reading, and to use clues to help define words they don't know.

4. Remind students to check their definitions in the dictionary.

> **MULTILEVEL OPTION**
>
> Group lower-level students and assist them with the task. Provide example sentences to help them understand the words.
>
> Have higher-level students write sentences for each word. Ask volunteers to write one of their sentences on the board. Correct the sentences with the whole class, focusing on the use of the words rather than other grammatical issues.

Background Note

READING 1 page 5–7

Students at US universities are usually required to take "core classes" in addition to those for their major. Core classes are designed to give students a broad knowledge base in the "liberal arts". They typically take one or two courses in science, math, English, history, social science, and culture. Foreign language classes, such as those for French, Spanish, Chinese, etc., are considered "culture" classes. Most US universities require their students to have proficiency in a foreign language. Students who have studied a foreign language in high school may opt to take a test to test out of this requirement. These students usually have to show at least an intermediate-level proficiency. If students successfully opt out, they receive foreign language credits without having to take any language courses at the university.

Background Note

READING 2 pages 15–17

The BBC reports that since 2013, the number of British pupils (aged 14–17) taking French and German courses has dropped from between 30 and 50 percent. At the same time, there has been an increase in the number of pupils studying Spanish and Mandarin. A recent survey by the European Commission has also showed that 62% of Britons do not speak any language apart from English, and that only 38% speak a foreign language in addition to English. The study also suggested that British students shy away from learning foreign languages because they believe it's more difficult to get good grades in languages than in subjects such as science and history. Compared to other European nations, the UK has the lowest number of students studying a foreign language. British companies have expressed concern about the decreasing numbers of those bilingual in English and a second language, particularly German and French, saying that it makes UK students less competitive in the European and larger global business market.

Expansion Activity 2

WORK WITH THE VIDEO page 22

1. Expand on the video by having students discuss whether the teaching model highlighted in the video would be a good option for deaf children in rural areas of the students' home country.

2. Set up the task. Say: *Imagine the government has agreed to invest in teaching sign language to children living in rural areas in [name of students' country]. They have two options. One option is to pay for teachers to travel to local villages to teach children sign language in person, as you saw in the video. The second option is to bring computers and the Internet to rural villages and teach sign language to children online. The government can only afford one option.*

3. Put students into small groups. Have each group brainstorm the advantages and disadvantages of each option. Assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock. Give groups 10–15 minutes to brainstorm their ideas.

4. Call on each group's reporter to share ideas with the class and note down the advantages and disadvantages of each option on the board. Have the other students take notes, and tell them they may be able to use some of the ideas for their final Unit Assignment.

5. Have groups review the list on the board and vote for which option they would support.

6. Tally the votes and declare a winner. Ask groups to justify why they chose one option over the other. Ask students to keep their notes handy so they can refer to them when completing the Unit Assignment.

Multilevel Option 2

WRITE WHAT YOU THINK page 23

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Call on volunteers to share their responses.

MULTILEVEL OPTION

Lower-level students should take notes during the discussion. They can then look at these notes as they are free writing if they run out of ideas. Higher-level students could use their free writing to develop a one-paragraph response to the question they chose.

Vocabulary Skill Note

USING A THESAURUS page 23

1. Ask students what they can find in a thesaurus. Then read the introduction and help students identify the elements of the entry from the *Oxford Learner's Thesaurus*.

2. Divide students into teams. Challenge them to be the first to call out answers to the following questions about the entry: *What is the headword? A synonym for* knowledge*? The preposition that follows* knowledge*? A verb you can use with* knowledge*? An antonym for* knowledge*? A phrase that means* your general knowledge about things*?*

Skill Note

Before looking up a word in a thesaurus, you have to find it in the index (unlike a dictionary). The index will tell you where the word is found in the thesaurus. For example, in the *Oxford Learner's Thesaurus*, *knowledge* is a headword, so you can go straight to that word, but if you want to find a synonym for *lore*, the index will tell you to look under the headword *knowledge*. Notice also that the entry for *knowledge* is followed by *[U, sing.]*, which means that it is an uncountable (noncount), singular noun. Students might not be familiar with *antonyms*, words with opposite meanings. Discuss the concept of antonyms with students.

Expansion Activity 3

WRITING SKILL page 25

1. Go over the information in the skill box. Call on several students to read the different sections.

2. Clarify meanings of any unknown words, such as *subject line, closing, logic*, *authority*, etc. Ask questions to confirm comprehension: *Where do you find the subject line of an email? What do we mean by* logic*? Who is an example of someone with authority?*

21ST CENTURY SKILLS EXPANSION

Employers today expect their employees to adhere to professional standards when sending emails to co-workers, especially when sending emails to multiple individuals at once. Sometimes people use humor or jokes as a form of emotional appeal. However, when people use humor in a professional email, it can easily be misinterpreted. Depending on how a message is written, it may appear sarcastic or even offensive to others, especially if one's co-workers represent different cultural and/or linguistic backgrounds. Ask students if they think it's appropriate to use humor in professional emails or not. Ask if anyone had an experience where the humor they used wasn't easily understood or was misinterpreted by someone from a different cultural or linguistic background. What caused the misunderstanding? Was it because of the subject matter, or because of the language they used?

Grammar Note

CONTRAST AND CONCESSION CONNECTORS page 28

1. Elicit examples of connectors (coordinating conjunctions, subordinators, and transitions) that introduce contrast or concession. Then ask students to read the text in the box.

2. Check comprehension: *What does* concession *mean? What is an example of a coordinating conjunction/subordinator/transition that shows contrast or concession?*

Skill Note

The three types of connectors are punctuated differently. Since coordinating conjunctions join two independent clauses, they should technically not start sentences, and a comma is used to separate the clauses. (But students will see sentences starting with coordinating conjunctions in many types of writing, such as this sentence.) When a subordinator adds a dependent clause after the main clause, no punctuation is required, although many writers use a comma with these subordinators of contrast and concession. When a dependent clause starts a sentence, a comma is used before the main clause. Remind students not to use a dependent clause as a whole sentence (which forms a fragment) or join two sentences with a comma and a transition (which causes a run-on sentence or comma splice). The comma after a transition word is optional but advisable.

Multilevel Option 3

B. APPLY page 29

1. Ask for a volunteer to read the directions aloud.

2. Have students complete the activity on their own and then compare answers with a partner.

3. Ask for volunteers to write their sentences on the board and go over them as a class. Make any necessary corrections.

MULTILEVEL OPTION

Have lower-level students work in pairs to complete the activity, and assist the pairs as necessary. Have higher-level students complete the activity individually and then write their own sentences with one of the connectors from the activity. Ask for volunteers to write one on the board to discuss as a class.

Unit Assignment Rubrics

Unit 1   Education

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a persuasive email.*

20 points = Persuasive element was completely successful (at least 90% of the time).
15 points = Persuasive element was mostly successful (at least 70% of the time).
10 points = Persuasive element was partially successful (at least 50% of the time).
  0 points = Persuasive element was not successful.

Write a Persuasive Email	20 points	15 points	10 points	0 points
Email is formatted correctly.				
Email includes effective persuasive appeals and generalizations.				
There are a variety of sentence types that include connectors of contrast and concession.				
Vocabulary from the unit is used correctly.				
Punctuation is accurate, especially for any connectors of contrast or concession.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 34–35

The large picture on pp. 34–35 shows a group of bikers who work for the food delivery service, Deliveroo, waiting for their instructions at one of their first Deliveroo Editions in France kitchens in Saint-Ouen, France.

Expansion Activity 1

UNIT QUESTION page 35

1. Introduce the Unit Question: *How is work changing?* To get students thinking about the question, review their ideas generated in Activity A.

2. Put students in small groups and give each group a piece of poster paper and a marker. Ask them to make a T-chart and label the two columns "30 years ago" and "Today".

3. Read the Unit Question aloud. Then ask students to think about what kinds of jobs were available 30 years ago and what new jobs are available today. Give students a minute to silently consider their answers to the question. Tell students to pass the poster paper and marker around the group. Direct each group member to list a job in each column. Encourage them to help one another.

4. Call on each group to share their answers. Ask students what new skills are necessary to have today compared to 30 years ago. Post the answers to refer back to later in the unit.

Multilevel Option 1

READING 1: Who Wins in the Gig Economy, and Who Loses?
C. VOCABULARY page 36

1. Read each of the words in the box aloud.

2. Invite the students to repeat the words after you.

3. Have students look up definitions of words they don't know. Answer any questions about meanings.

4. Direct students to discuss with a partner how the words might relate to the unit.

5. Encourage volunteers to share their answers.

MULTILEVEL OPTION

Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. For example: *Because of my brother's **expertise** in computers, he was offered a high-paying job at a software company. / When governments study the **labor** market, they look at which jobs are in demand, which jobs are going away, and how many people are currently employed. / Many students **take advantage of** loans from the government in order to help pay for their college tuition.*

Pair higher-level students and have them write sentences for each word. Call on students to write their sentences on the board. Correct the sentences, focusing on the use of the vocabulary rather than other grammatical issues.

Background Note

READING 1 page 37

In the past, the word "gig" was slang for a temporary job in a free market economy that lasted for a specific period of time. It was usually used in reference to musicians. Today, the term "gig" has expanded to any temporary, pre-defined job taken by freelancers, contractors, and part-time hires. Gigs are fee-based and do not assume any future work opportunities, health insurance benefits, or retirement benefits. Intuit has predicted that 40% of Americans will work as independent contractors by 2020, largely as a result of the digital age, where workers can take on jobs globally from the comfort of their own home. The increase in gigs also has great benefits to employers, who save resources on benefits, office space, the training of permanent employees, and paying high-salaries (with benefits) to specialists in the field.

Multilevel Option 2

WRITE WHAT YOU THINK page 42

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have students choose one of the questions and write freely for 5–10 minutes in response.

6. Call on volunteers to share their responses.

MULTILEVEL OPTION

Have higher-level students develop their answers to Questions 1, 2, or 3 into a paragraph.

Background Note

READING 2 page 45

Whereas a gig economy is one where individuals offer their services on a part-time basis to companies, a sharing economy is one where individuals rent or share assets they have to other individuals who need them, such as cars, homes, and services. Common examples include Uber, the peer-to-peer ridesharing service, and AirBnB, a service allowing individuals to rent out their properties to others. The idea of a sharing or "peer-to-peer" economy is less an economic model and more an ideological one, as the transaction is typically mediated through another company who manages the rental or service on behalf of the individual who owns the asset.

As a result, individuals who rent their assets through such companies often end up giving up personal control over setting prices, rules, and regulations. Branding this model as part of the sharing economy is thus misleading, for the transactions are not actually peer-to-peer and have little to do with fostering social relationships among consumers. For these reasons, experts prefer the term "access economy" to "sharing" or "gig" economy as it more accurately describes such transactions.

Expansion Activity 2

WORK WITH THE VIDEO page 52

1. Tell students to imagine that Bee and Theo will be coming soon to their area to photograph important and famous places and sell the photos on their website.

2. Put students into small groups. Ask students to brainstorm 3–5 places they would suggest photographing. Encourage students to think of different kinds of places: 1) famous buildings and monuments, 2) local hangout spots, 3) traditional neighborhoods, etc.

3. Elicit ideas from each group and list them on the board. Then assign one place to each group, but do not let the other groups know which one you assigned.

4. Ask each group to write a short paragraph describing the place, its importance to the country/community, and reasons why it would be a good choice for Bee and Theo's travel website.

5. Have a volunteer from each group read their paragraph. Then ask the other groups to guess the place they described. Assign one point for each correct guess. The group with the most correct guesses wins.

Vocabulary Skill Note

REPORTING VERBS page 53

1. Direct students to look back at the readings in this textbook and identify writers who have reported the ideas of other people. Ask why writers do this (e.g., to give examples, to introduce a different opinion, or to quote an expert).

2. Read the introductory paragraph in the skill box. Go over the information in the chart and read the final paragraph about adverbs.

3. Check comprehension: *Which reporting verb shows you agree/disagree with the authors? Which verb shows you have a neutral opinion? What effect can an adverb have on a sentence?*

Skill Note

This skill draws students' attention to the concept of connotation or additional meanings suggested by a word. Students need to become aware of connotation so that they can understand writers' opinions and express their own ideas effectively. Reporting verbs can be followed by simple noun phrases, noun clauses, or non-finite clauses, and a good learner's dictionary will help students choose the correct structure. You

might point out that reporting verbs are often used in the present tense even when the information being reported was written in the past. This stresses that the writer thinks the ideas are still relevant and important now.

Multilevel Option 3

B. CREATE page 54

1. Direct students to complete the activity individually.

2. Tell them they can choose facts, statistics, or examples from the readings in this unit or from the unit video.

> **MULTILEVEL OPTION**
>
> Group lower-level students and assist them with this activity. Allow them to use facts or examples from their own knowledge instead of those from the readings or unit video. Have higher-level students compare their answers and find other information from the readings or unit video to support their personal attitudes and beliefs.

Grammar Note

NOUN CLAUSES page 59

1. Read the information in the box. Help students identify the different noun clauses.

2. Check comprehension: *What word is added to make a statement into a noun clause? What words can be used to make a* yes / no *question into a noun clause? What do you need to remember when turning a* wh-*question into a noun clause?*

Skill Note

Noun clauses occur after most verbs that report speech, thoughts, and ideas. Some verbs are restricted in the clause types that may follow them (e.g., *wonder if / whether* but not usually *that*). Some verbs require or permit indirect objects before the noun clause (e.g., *tell someone that; agree with someone that*), whereas others do not (e.g., *say that*). Noun clauses do not require special punctuation; it is incorrect to place a comma between the reporting verb and the noun clause. The punctuation at the end of the sentence depends on the main clause (the one with the reporting verb) not the noun clause, which can be confusing if the noun clause is formed from a question. For example: *We asked the man why he plays video games* ends with a period, not a question mark.

Expansion Activity 3

B. APPLY page 60

1. Ask students to read the directions and the example sentence. Explain to students that there are two steps to this activity:

   1) choose an appropriate reporting verb

   2) turn the sentence provided into a noun clause

2. Have students complete the activity individually. Encourage them to pay attention to punctuation.

3. Ask volunteers to write their sentences on the board.

21ST CENTURY SKILLS EXPANSION

Employers value the ability to communicate opinions clearly. Choosing the correct word is central to effective communication. However, it is also important to be specific and polite when disagreeing or distancing yourself from an idea.

Ask students to role-play a situation in which one employee makes a suggestion that others disagree with. After presenting their role-plays, students should discuss which role-play was most effective.

Unit Assignment Rubrics

Unit 2   Business

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a persuasive article.*

20 points = Article element was completely successful (at least 90% of the time).
15 points = Article element was mostly successful (at least 70% of the time).
10 points = Article element was partially successful (at least 50% of the time).
  0 points = Article element was not successful.

Write an Persuasive Article	20 points	15 points	10 points	0 points
Article makes a convincing argument that is supported by appropriate evidence.				
Article includes clear contrasting ideas.				
Reporting verbs are used correctly.				
Noun clauses are used correctly.				
Article includes correct punctuation, spelling, and grammar.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 64–65

The large photo on pp. 64–65 depicts a scene of a spaceship entering the Death Star trench run, which is inspired by the Star Wars movies. The scene is combined with another scene of an underground tunnel in London, England.

Expansion Activity 1

UNIT QUESTION page 65

1. Introduce the Unit Question: *How well does a picture illustrate the truth?* Ask related information questions or questions about personal experiences to help students prepare for answering the more abstract Unit Question. For example, ask: *Where would you see a photograph that has been changed? Do you trust images in newspapers, magazines, or advertisements?*

2. Put students in small groups and give each group a piece of poster paper and a marker.

3. Read the Unit Question aloud. Give students a minute to silently consider their answers. Tell students to pass the poster paper and the marker around the group. Direct each group member to write a different answer to the question. Encourage students to help one another.

4. Ask each group to choose a reporter to read the answers to the class. Point out similarities and differences among the answers. Make a group list that incorporates all of the answers. Post the list to refer back to later in the unit.

Background Note

READING 1 page 68

Infographics are images, such as charts, maps, or diagrams, used to visually present information, data, or knowledge. They make it possible to condense large amounts of information into more memorable, or easy to understand, formats. Although similar instructional illustrations have been around since the 1600s, today's infographics are often created using Adobe Flash and HTML for a variety of media sources. And with the popularity of social media, you can find infographics covering any number of topics on sites such as Facebook, Twitter, and Pinterest.

Multilevel Option 1

WRITE WHAT YOU THINK page 74

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students five minutes to discuss the questions. Call time if conversations are winding down. Allow them an extra minute or two if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Call on volunteers to share their responses.

MULTILEVEL OPTION

Put students in mixed-ability groups to discuss the questions. This way, higher-level students will provide vocabulary or key ideas for their lower-level partners. For the response writing, pair lower-level students and have them choose the same question to respond to. As higher-level students finish, have them share their response with a partner.

Background Note

READING 2 page 76

This excerpt is from a college textbook. It asks the question on how far journalists can or should go when manipulating digital photographs. Today, computer software allows highly convincing alterations to be made to images, including adding and deleting elements, changing colors, moving objects, and even combining elements from multiple photographs. Future visual journalists and photographers are warned that they may want to examine their own practices and ethics to avoid digital deceptions that lead readers to consider them untrustworthy.

Expansion Activity 2

WORK WITH THE VIDEO page 82

1. Tell students they will be working together to create a map of their ideal town.

2. Put students in small groups and give each group a piece of poster paper and a marker.

3. Instruct students to create a map of their ideal town on their poster paper. Tell them to consider various features, such as restaurants, schools, shopping malls, libraries, gas stations, residences, hospitals, streets, bicycle paths, parks, and other recreational spaces. Instruct them to label all major features, including names of the major streets. Instruct them to give their model town a name.

4. As students create their maps, circulate and offer advice as necessary. Ask students to consider the needs of businesses, pedestrians, families, students, etc.

5. Have each group display their completed maps on the walls of the classroom and allow time for the class to visit and learn about each one.

6. Finally, have students choose the model town they like best and write a paragraph explaining why that was their preferred choice.

7. When handing back the students' paragraphs, tell them which model town received the most votes and why.

Vocabulary Skill Note

LATIN AND GREEK ROOTS   page 83

1. Have students read the information about common Latin and Greek roots. Help them understand the meaning of the example words.

2. Elicit other words with these roots.

3. Check comprehension: *How is the meaning of* promote *related to its root? What does the root word in* evidence *mean?*

Skill Note

Other words with these roots include *motivate*, *motion*, *move*, *movement*, *mobile*; *justice*, *jury*, *juror*; *adhere*, *adhesive*; *video*, *evident*, *vision*, *television*.

Multilevel Option 2

B. INTERPRET   page 84

1. Ask for a volunteer to read the directions aloud.

2. Do the first item with the class. Call on a volunteer to read the three words and have the class repeat the correct pronunciation. Then elicit the correct answer from the class.

3. Have students complete the activity with a partner.

4. Call on volunteers to share their answers. Have the students repeat the correct pronunciation of each set of words.

MULTILEVEL OPTION

Group lower-level students together and allow them to use their dictionaries or an online dictionary to look up the words to help them identify the meaning of the roots. Group higher-level students together and ask them to complete the activity without the use of a dictionary. If necessary, have them to refer to a dictionary after they have completed the activity to verify their answers. Ask higher-level students to choose one of the words and write a sentence that illustrates its meaning. Ask for volunteers to write their sentence on the board and go over them with the class.

Grammar Note

QUANTIFIERS   page 89

1. Elicit examples of count and noncount nouns and write them on the board in two columns.

2. Read the information about quantifiers.

3. Check comprehension: *What is the difference between* much *and* many*? Between* few *and* a few*? Why is it incorrect to write "almost students"?*

4. Have students form sentences using the quantifiers with the nouns on the board.

Skill Note

Two especially difficult distinctions are: (a) *few* / (a) *little*, and *so / too* (so = a lot; too = in excess, hence the overflowing cup). Point out that *a lot of* and *lots of* may be too colloquial for formal writing.

Expansion Activity 3

A. BRAINSTORM   page 91

1. Put students into pairs. Each pair should write a paragraph to describe their chosen product or service and the type of ad they want to create.

2. Have pairs exchange paragraphs. Students should read the new paragraph and answer the questions in Step 3 to plan their proposal.

21ST CENTURY SKILLS EXPANSION

Proposal writing is a common requirement in many fields of work. Discuss situations in which students might have to write a proposal (e.g., grant proposals in science, project proposals in business, government policy proposals, etc.). Ask students to research the type and format of the proposals in their intended careers.

Unit Assignment Rubrics

Unit 3   Media Studies

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a proposal.*

20 points = Proposal element was completely successful (at least 90% of the time).
15 points = Proposal element was mostly successful (at least 70% of the time).
10 points = Proposal element was partially successful (at least 50% of the time).
  0 points = Proposal element was not successful.

Write a Proposal	20 points	15 points	10 points	0 points
The entire proposal is persuasive and has unity.				
Each paragraph has unity.				
Quantifiers are used correctly.				
Proposal includes appropriate vocabulary from the unit.				
Punctuation, spelling, and grammar are accurate.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 94–95

The large photo on pp. 94–95 shows the United Nations headquarters building in Geneva, Switzerland. Rows of flags from UN member countries line the street leading to the front entrance of the building.

Expansion Activity 1

UNIT QUESTION page 95

1. Introduce the Unit Question: *Why is global cooperation important?* To get students thinking about the question, review some of the global issues generated in Activity A.

2. Put students in small groups and give each group a piece of poster paper and a marker.

3. Read the Unit Question aloud. Give students a minute to silently consider their answers to the question. Tell students to pass the poster paper and marker around the group. Direct each group member to write a different answer to the question. Encourage them to help one another.

4. Call on each group to share their answers. Post the answers to refer back to later in the unit.

Multilevel Option 1

READING 1: In Norway, Global Seed Vault Guards Genetic Resources
C. VOCABULARY page 96

1. Read the directions aloud.

2. Put students in pairs. Ask them to take turns reading each vocabulary word in the box aloud and stating what they believe the meaning to be.

3. Go over the definitions with the class.

> **MULTILEVEL OPTION**
>
> Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. For example: *People are worried that all of the panda bears might die one day and become **extinct**. / I want to go to law school, but if I am not accepted, my **Plan B** is to start my own business. / In order to **conserve** our supply of oil, people should drive their cars less.*
>
> Have higher-level students complete the activity individually and then compare answers with a partner. Tell the pairs to write a sentence for each word. Have volunteers write one of their sentences on the board. Correct the sentences with the whole class, focusing on the use of the words rather than other grammatical issues.

Background Note

READING 1 page 97

The Global Seed Vault is located just outside the town of Longyearbyen, on the island of Spitsbergen, in the Svalbard archipelago of Norway. Longyearbyen has a population of about 2,000 inhabitants. The town is north of the Arctic Circle, only 810 miles (1,300 kilometers) from the North Pole. The arctic climate creates permafrost, which means the ground is frozen all year around. Longyearbyen was chosen as the site for the Global Seed Vault because of its remote location and permanently frozen ground.

Multilevel Option 2

② WRITE WHAT YOU THINK page 102

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Call on volunteers to share their responses.

> **MULTILEVEL OPTION**
>
> Lower-level students should take notes during the discussion. They can then look at these notes as they are free writing if they run out of ideas. Higher-level students could use their free writing to develop a one-paragraph response to the question they chose.

Background Note

READING 2 page 106

Between the first launch in 1981 (Columbia) and the final landing in 2011 (Atlantis), NASA's space shuttle fleet flew 135 missions, helped construct the International Space Station (ISS), and inspired generations to dream of becoming astronauts and to reach for the stars.

The ISS is a collaboration of 15 nations working together to create a world-class, state-of-the-art orbiting research facility.

After the U.S. Space Shuttle program ended, Russia's Soyuz rockets became the only provider of transport for astronauts going to the ISS.

Multilevel Option 3

E. EXPLAIN page 110

1. Have students work alone to complete the activity.

2. Have students compare their answers in small groups.

3. Call on volunteers to share their ideas. Ask volunteers whether the information they gathered was directly stated by the author or whether it had to be inferred.

4. If the information was directly stated, have students identify the corresponding sentence(s) from the text.

> **MULTILEVEL OPTION**
>
> Pair lower-level students together to complete the activity. Have each pair divide up the countries so each partner is responsible for finding information for only three of the countries. Then have them share their answers to complete the whole activity together.
>
> Have higher-level students work alone. When they have finished, have them work together to find another idea/example for each country from the text. If they are unable to find another idea, encourage them to research online for other contributions from each country.

Expansion Activity 2

WORK WITH THE VIDEO page 113

1. Tell students they will brainstorm raw materials from their country that are often sold and exported to other countries.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Ask each group to brainstorm common raw goods from their country that are regularly exported to other countries, such as coal, gold, silver, oils, wood, beeswax, palm oil, wheat, rice, minerals, fruit, vegetables, etc. Give groups 5–10 minutes to make their lists.

4. Elicit the goods from each group and write them on the board.

5. Assign a different good to each group. Instruct the group to do further research on where the good is sold and the product it helps to create. Encourage them to do extra research online. Allow groups a day or two to complete their research.

6. Ask each group to develop a presentation that describes the raw material and explains how it is traded to other countries to make other products and which ones. Groups may develop PowerPoint presentations or oral presentations depending on the technological resources available.

7. Have each group give their presentation to the rest of the class.

Vocabulary Skill Note

PREFIXES page 114

1. Ask students to brainstorm words with prefixes. Elicit the prefixes and words and list them on the board.

2. Direct students to read the information in the skill box.

3. Check comprehension: *Where can a prefix be added? What happens to a word when you add a prefix? What does the prefix* un- *mean? What can you use to learn more about prefixes? What does the dictionary entry for* co- *tell us? What does the dictionary entry for* mal- *tell us?*

Skill Note

There are many prefixes in English that are added to the beginning of a word to change its meaning. The best place to find information about the exact meaning of a prefix is in a dictionary like the *Oxford Advanced American Dictionary for Learners of English*. Some common prefixes and their meanings include: *anti-* (against) as in *antibiotic*; *auto-* (self) as in *autobiography*; *bi-* (two) as in *bilingual*; *de-* (take away) as in *deforestation*; *micro-* (very small) as in *microorganism*; *semi-* (half) as in *semicircle*; *sub-* (lower) as in *submarine*; *trans-* (across) as in *transatlantic*; *ultra-* (beyond) in *ultrasonic*; and *under-* (not enough) as in *underdeveloped*.

Expansion Activity 3

WRITING SKILL page 117

1. Read the title of the writing skill and the first paragraph. To confirm students' understanding of the text, check their comprehension of key terms: *What are ways writers can give their writing more coherence? What does "organized in a logical way" mean? What do we mean by an author's "purpose"?*

2. Ask for volunteers to read the three main sections in the instructional box: *Specificity*, *Emphasis*, and *Time*. After each section, pause and ask students for examples of essays they've written that used each method of organization. If students have trouble thinking of their own examples, have them refer back to previous writing assignments they have completed in class or texts they have read in previous units.

3. Ask students which method of organization they think is easier and which they think is more difficult. Encourage them to offer reasons to support their opinions.

It is important for students to be able to make choices about how to best deliver information to co-workers in the workplace in order to make their messages effective, well supported, and convincing. Get students to talk in groups about emails they've written to co-workers or teachers and reflect on what method of organization they used (e.g., specificity, time, or emphasis), whether it was effective, and how the message could've been perceived differently if they had chosen a different organization. You may also ask students to offer examples of messages that were not successful, and ask them to identify reasons why. Ask for volunteers to give examples and discuss the merits of each method of organization based on the message's specific audience and the writers' intended purpose. Write useful vocabulary from the discussion on the board for students to refer to later.

Grammar Note

PARALLEL STRUCTURE AND ELLIPSIS page 122

1. Draw two parallel lines and explain that the lines are the same distance apart at every point. Point out that grammatical structures can be parallel too. That is, a series of words, phrases, or clauses in a single sentence will have the same grammatical form.

2. Direct students to read the information about parallel structure and ellipsis.

3. Check comprehension: *What are two examples of parallel structure? What is ellipsis? When can you use ellipsis? What is usually omitted in parallel structure?*

Skill Note

Good writers avoid mixing together different grammatical structures when writing a sequence of words, phrases, or clauses. A common place where parallel structure errors can occur is in thesis statements. Thesis statements often contain a series of points, which are the main ideas for an essay. These controlling ideas should be parallel. Consider the thesis statement *Increased global cooperation will lead to new discoveries in medical science, space exploration, and animal conservation*. The main ideas in this thesis statement, "medical science, space exploration, and animal conservation", are parallel.

Unit Assignment Rubrics

Unit 4   International Relations

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write an essay.*

20 points = Essay element was completely successful (at least 90% of the time).
15 points = Essay element was mostly successful (at least 70% of the time).
10 points = Essay element was partially successful (at least 50% of the time).
  0 points = Essay element was not successful.

Write an Essay	20 points	15 points	10 points	0 points
There is a logical order to the main ideas and supporting details.				
Parallel structure and ellipsis are used correctly.				
Words with prefixes are used correctly.				
Essay includes vocabulary from the unit.				
Punctuation, spelling, and grammar are used correctly.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 126–127

The large photo on pp. 126–127 shows an interior view of the Kievskaya train station in Moscow, Russia. Large mosaics flank the walls and elaborate chandeliers hang from above. The mosaics and arches are edged in gold-colored trim.

Expansion Activity 1

UNIT QUESTION page 127

1. Introduce the Unit Question: *What makes a public place appealing?* Ask related information questions or questions about personal experiences to help students prepare for answering the more abstract Unit Question. For example, ask: *What is a public place you find very appealing? What is a public place you don't find appealing?*

2. Put students in small groups and give each group a piece of poster paper and a marker.

3. Read the Unit Question aloud. Give students a minute to silently consider their answers to the question. Tell students to pass the poster paper and marker around the group. Direct each group member to write a different answer to the question. Encourage them to help one another.

4. Ask each group to choose a reporter to read the answers to the class. Point out similarities and differences among the answers. If answers from different groups are similar, make a list that incorporates all of the answers. Post the list to refer back to later in the unit.

Multilevel Option 1

READING 1: The New Oases
C. VOCABULARY page 130

1. Read each of the words in the box aloud.

2. Invite students to repeat the words after you. Listen for correct syllable stress.

3. Have students work with a partner to locate each word in the reading. Invite them to use clues in the text to help define the words they don't know.

4. Encourage volunteers to share what they learned.

> **MULTILEVEL OPTION**
>
> Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. For example: *Groups of people who move between different homes and settlements are called **nomadic**. / A **hybrid** car runs on both gas and battery power. / I **intentionally** chose a smaller apartment because it's cheaper.*
>
> Pair higher-level students and have them write a sentence for each word. Have volunteers write their sentences on the board. Correct the sentences, focusing on the use of the vocabulary rather than other grammatical issues.

Background Note

READING 1 page 131

Frank Gehry is one of the most famous architects in the world. He has designed museums and university buildings, including the Guggenheim Museum in Bilbao, Spain and the Stata Center at the renowned Massachusetts Institute of Technology (MIT) in the US, which is described in this article. This unusual building was designed to help students and faculty meet and collaborate while also meeting the needs of a modern university. The departments based in the Stata Center include computer science, artificial intelligence, genetics, and linguistics.

Multilevel Option 2

C. RESTATE page 135

1. Read the directions aloud. Remind students to use the strategies taught in the Reading Skill to understand the structure of the article and the relationship between the ideas.

2. Ask students to complete the activity individually or in pairs.

3. Have students share their answers with a partner and discuss any differences.

4. Elicit the answers from volunteers.

> **MULTILEVEL OPTION**
>
> Group lower-level students together and assist them with the activity by modeling the process of identifying the main ideas. Higher-level students can use their answers to write a one-paragraph summary of the article.

Multilevel Option 3

WRITE WHAT YOU THINK page 138

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students five minutes to discuss the questions. Call time if conversations are winding down. Allow them an extra minute or two if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Call on volunteers to share their responses.

Background Note

READING 2 page 139

Hans Monderman (1945–2008) was a Dutch traffic engineer who became famous for the concept of "Shared Space," in which pedestrians, cars, cyclists, and all road users share the same space without signs, traffic lights, or barriers. Monderman redesigned roads in over 100 locations in northern Holland (the Netherlands), where he worked as a road safety investigator, and his ideas have been used across Europe and in the United States.

Expansion Activity 2

WORK WITH THE VIDEO page 146

1. Tell students they will be doing a debate about road traffic. Write the debate statement on the board: *Motorists in cities should pay extra to use highways during peak times of day*.

2. Split the class into three groups. Group 1 will be the supporting team. The supporting team will brainstorm two reasons (arguments) why city motorists should pay extra to use highways during peak times. Group 2 will be opposing them. The opposing team will brainstorm two reasons (counterarguments) why city motorists shouldn't pay extra to use highways during peak times, including other possible solutions to traffic congestion. Group 3 will be the judges. They will brainstorm reasons for both sides so they are prepared for the debate. Review the procedure for the debate with students (see next step).

3. Start the debate. Use the following procedure:

   1. Each team presents its first argument. The supporting team goes first. The opposing team goes second.

   2. Each team presents its second argument. The supporting team goes first. The opposing team goes second.

   3. Each team defends its argument and explains why it's stronger than the other team's. The supporting team goes first. The opposing team goes second.

   4. Each team gives a short summary of its arguments. The supporting team goes first. The opposing team goes second.

   5. Judges vote on which team won the debate.

4. Follow up the debate by giving students feedback about what you heard them say. Highlight important vocabulary they used. Point out the most powerful arguments they made. Correct any common grammar or pronunciation errors you heard.

Vocabulary Skill Note

USING THE DICTIONARY: verb complements
page 147

1. Seat students in small groups. Write some familiar verbs on the board (e.g., *stop*, *help*, *say*, *suggest*) and challenge each group to write multiple sentences using one of the verbs (e.g., *He suggested an answer. He suggested that the answer is correct. She suggested to the teacher that the answer is correct*.).

2. Review the students' sentences, correcting any errors with the use of the verbs. Then have students read the information in the skill box.

3. Check comprehension: *What is a transitive / intransitive verb? What is the difference between* "stop doing something" *and* "stop to do something"*? What prepositions can be used after* negotiate?

Skill Note

Verb complements are rarely predictable, and students need to develop the habit of learning how complements go with different verbs. Particular difficulties students have include the use of indirect objects with certain reporting verbs (e.g., *tell*, *remind*, *convince*), the use of noun clauses after reporting verbs (see p. 59), and choosing between infinitive and gerund complements. Many learners also attempt to make intransitive verbs passive, which can cause errors (e.g., *It was happened*; see p. 151 in this unit).

Grammar Note

PASSIVE VOICE TO FOCUS INFORMATION
page 149
FORMING THE PASSIVE

1. Write the first two example sentences from the skill box on the board. Ask students to describe the difference between them.

2. Ask for volunteers to read the example sentences. Highlight the subjects and agents in the sentences on the board.

3. Check comprehension: *What is an agent in an active sentence? In a passive sentence? How do you form the passive?*

FOCUSING INFORMATION

1. Ask for volunteers to read the instructional text and example sentences.

2. Check comprehension: *Why would you use the passive? When should you avoid the passive?*

3. Ask students why the agent is not necessary in the example sentences. Get them to understand that it is less important than the result/receiver of the action. Ask students for other reasons you might not include an agent: perhaps because it is unknown to the writer, or because the writer doesn't want to attribute responsibility to a specific individual.

4. Ask students for other examples of verbs followed by infinitives (e.g., *agree*, *deserve*, *start*, *wish*, etc.) and gerunds (e.g., *appreciate*, *avoid*, *keep*, *support*, etc.). Write example sentences with the passive infinitive and passive gerund on the board using the verbs. Get students to help complete the sentences with their own ideas.

Skill Note

Analyses of written texts reveal that the passive voice is used for about 25 percent of verbs in academic writing, with slightly heavier use in scientific texts. The passive can be formed with *get*, but this is used far less frequently than *be* in academic English.

Expansion Activity 3

UNIT ASSIGNMENT page 155

Refer students to the ideas they discussed at the beginning of the unit about what makes a public place appealing. Cue students if necessary by asking specific questions about the content of the unit: *What different types of public spaces have you read about and discussed? What aspects make them appealing? How can design affect behavior? How do modern designs reflect changing lifestyles?* Read the directions for the assignment to ensure understanding.

21ST CENTURY SKILLS EXPANSION

This assignment asks students to combine a basic skill (description) with two higher-order skills (evaluation and recommendation). This logical sequence of skills is also used in the workplace, where employees and managers have to understand a situation, analyze it, and then propose changes. Ask students why it is important to analyze a problem before trying to solve it. Elicit real-life or workplace situations in which problems need to be described, evaluated, and solved.

Unit Assignment Rubrics

Unit 5   Urban Planning

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write an analysis essay.*

20 points = Essay element was completely successful (at least 90% of the time).
15 points = Essay element was mostly successful (at least 70% of the time).
10 points = Essay element was partially successful (at least 50% of the time).
  0 points = Essay element was not successful.

Write an Analysis Essay	20 points	15 points	10 points	0 points
Essay includes a description and evaluation of the place and at least one recommendation for improvement.				
Essay uses linear and/or constant information structure effectively.				
Verbs have the correct complements.				
Passive voice is used appropriately.				
Essay includes vocabulary from the unit.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 158–159

The large photo on pp. 158–159 shows a woman walking in front of the 11 Conti Museum in Paris, France. The museum is owned by the Monnaie de Paris (Paris Mint), France's oldest institution, dating back to the 9th century. In the courtyard sits a metal sculpture titled "People Tree" by Indian artist Subodh Gupta.

Expansion Activity 1

UNIT QUESTION page 159

1. Introduce the Unit Question: *How can we turn trash into treasure?* Write some of the items students said that they recycle from Activity A on the board. Ask students to think of other ways they could use the items they recycle.

2. Read the Unit Question aloud. Point out that answers to the question can fall into the following categories: *Recycle* (e.g., recycling plastic bottles to make lawn chairs or more plastic bottles); *Reuse* (e.g., refilling a plastic water bottle); and *Repurpose* (e.g., turning a plastic soda bottle into a bird feeder). Give students a minute to silently consider their answers to the question.

3. Write each category (*Recycle*, *Reuse*, *Repurpose*) at the top of a sheet of poster paper. Elicit answers to the question and make notes of the answers under each category. Post the lists to refer back to later in the unit.

Background Note

READING 1 page 160

Singapore is a Southeast Asian island country off the southern end of the Malay Peninsula, just north of the equator. It is very densely populated with about 4½ million people, but 23 percent of the country is forests and nature reserves. Singapore has a high standard of living and a highly developed economy.

Multilevel Option 1

READING 1: Garbage of Eden
C. VOCABULARY page 162

1. Read each of the words in the box aloud.

2. Invite the students to repeat the words after you.

3. Have students look up definitions of words they don't know. Answer any questions about meanings.

4. Direct students to discuss with a partner how the words might relate to the unit.

5. Encourage volunteers to share their answers.

MULTILEVEL OPTION

Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. For example: *I'm looking forward to our trip. I* **anticipate** *great weather. / My computer is* **obsolete** *because it is so old. / The teacher has given the students* **abundant** *examples. In fact, she has written 12 sentences on the board.*

Pair higher-level students and have them write sentences for each word. Call on students to write their sentences on the board. Correct the sentences, focusing on the use of the vocabulary rather than other grammatical issues.

Multilevel Option 2

❓ WRITE WHAT YOU THINK page 168

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have students choose one of the questions and write freely for 5–10 minutes in response.

6. Call on volunteers to share their responses.

MULTILEVEL OPTION

Group lower-level students. Instead of writing freely, have lower-level students write two or three sentences for each question. For higher-level students, have them write a paragraph for each question.

Background Note

READING 2 page 170

Besides the options of fixing broken items or recycling them, many have discovered the joy of upcycling. Upcycling is not a new concept, but it was first named around 1994. It is the process of converting old or discarded materials into something useful and, quite often, beautiful.

While upcycling often produces an item that is better or the same quality as the original, recycling (or downcycling), on the other hand, takes consumer materials and products and breaks them down into base materials, which are often remade into products of lesser quality.

Upcycling is a great way to reuse existing materials, make a positive impact on the environment, and reduce our global footprint.

Expansion Activity 2

WORK WITH THE VIDEO page 176

1. Ask the students to brainstorm different kinds of oils they use or know about, including vegetable oil, olive oil, palm oil, peanut oil, sunflower oil, avocado oil, sesame oil, etc.

2. Ask students to go online to research the different features of each oil and its uses in modern foods and production.

2. Assign a different kind of oil to each group. Have each group identify the advantages and disadvantages of each oil in terms of harvesting, production, and applicability to modern uses (such as fuels).

3. Give each group a piece of poster paper and a marker. Have each group create a mind map that identifies the uses, advantages, and disadvantages of their oil.

4. Ask a member from each group to present their posters. Encourage the audience to ask questions about the oil, its advantages and disadvantages. Ask the groups if the oil is commonly used in their home country, and if so, in what ways.

5. Post the posters on the wall to refer to later in the unit for the Unit Assignment.

Vocabulary Skill Note

SUFFIXES page 177

1. Elicit some suffixes from the class. Then direct students to read the information in the skill box.

2. Check comprehension: *What is a suffix? How will understanding suffixes help you build your vocabulary? What are some common suffixes?*

Skill Note

In addition to forming nouns, suffixes create other parts of speech. The suffix -*able* means "capable of" and forms adjectives like *acceptable*. The suffix -*ly* can create adverbs, such as *quickly*. The suffix -*ize* means "to become or make" and forms verbs such as *revolutionize*. Knowing suffixes helps students build up word families and helps them improve the precision of their writing and speech.

Multilevel Option 3

B. RESTATE page 180

1. Read the directions aloud.

2. Ask for a volunteer to read the original sentence from item 1. Then ask for a different volunteer to read the answer (paraphrase). Ask the class what strategies the writer used to write the paraphrase: using synonyms, changing passive to active voice, and changing the order of phrases.

3. Direct students to complete the activity on their own.

4. Have students compare their answers in pairs.

5. Ask for 2–3 volunteers to read their paraphrase for each item. Point out their similarities, differences, strengths, and weaknesses.

MULTILEVEL OPTION

Group lower-level students in pairs or small groups. Have them work together to complete the activity and assist them with the task. Provide suggestions on words that can be easily replaced with synonyms and phrases and clauses that can be easily moved around, such as prepositional phrases and adverb clauses.

Have higher-level students complete the activity individually and then compare answers with a partner. Have them choose the best parts of each partner's paraphrase and write a new one together. Ask each pair to write one of their complete paraphrases on the board to use as models for the rest of the class.

Grammar Note

MODALS OF POSSIBILITY page 185

1. Read the text in the box, focusing on the examples for the four categories of modals of possibility.

2. Check comprehension as you present the information: *When do we use these kinds of modals? What does the choice of modal depend on? What modals can you choose when you are absolutely certain? Very certain? Somewhat certain? Less certain?*

Skill Note

A helpful way to teach this skill is to ask students to make a four-column chart with the headings: *Absolutely certain, Very certain, Somewhat certain,* and *Less certain*. As students encounter different modals in texts, have them record the modals and any sentences in their chart.

Expansion Activity 3

UNIT ASSIGNMENT page 186

1. Say to the students: *The assignment for this unit is to prepare a business plan that describes an innovative new garbage recycling company to potential investors. This Unit Assignment will let you demonstrate your entrepreneurial literacy, as well as your skill in writing a business plan, using modals and suffixes.*

2. Explain that you are going to use a rubric similar to their Self-Assessment checklist on p. 188 to grade their Unit Assignment. You can also share a copy of the Unit Assignment Rubric (on p. R-6 of this *Teacher's Handbook*) with the students.

21ST CENTURY SKILLS EXPANSION

Entrepreneurial literacy is a valuable skill. Part of it is having a basic knowledge of business, including being willing to start something new and take responsibility for the results. Writing a business plan gives students practice developing this skill. Point out to students that making a detailed business plan helps them to better predict the results of their ideas and lay the foundations for success.

Unit Assignment Rubrics

Unit 6   Ecology

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a business plan.*

20 points = Business Plan element was completely successful (at least 90% of the time).
15 points = Business Plan element was mostly successful (at least 70% of the time).
10 points = Business Plan element was partially successful (at least 50% of the time).
  0 points = Business Plan element was not successful.

Write a Business Plan	20 points	15 points	10 points	0 points
Business plan builds a convincing argument using facts, reasons, and examples.				
Information from Reading 1 and Reading 2 has been paraphrased correctly.				
Modals of possibility are used correctly.				
Nouns have the correct suffixes where appropriate.				
Vocabulary from the unit is used appropriately.				

Total points: _____

Comments:

Background Note

UNIT OPENER   pages 190–191

The large photo on pp. 190–191 shows a robot waiter delivering plates of food to customers at the Naulo restaurant in Katmandu, Nepal. In the background, customers sit in large booths with food and drinks on the table.

Expansion Activity 1

UNIT QUESTION   page 191

1. Introduce the Unit Question: *How do new discoveries and inventions change the world?* Ask related information questions or questions about personal experiences to help students prepare for answering the more abstract Unit Question. For example, ask: *What inventions do you use in your daily life? How have they helped you? What have been some important inventions in health? In science? In technology?*

2. Read the Unit Question aloud. Tell students: *Let's start off our discussion by listing inventions that have occurred in the past 25 years and their benefits to society.*

3. Seat students in small groups and direct them to pass around a sheet of paper as quickly as they can, with each group member adding one reason to the list. Tell them they have two minutes to write as many reasons as possible.

4. Call time and ask a reporter from each group to read the list of inventions and their benefits aloud.

5. Use items from the list as a springboard for discussion. Finish by asking students to brainstorm ways each of invention might have not been beneficial. Ask: *Does [name of invention] have any disadvantages?* List any disadvantages on the board.

Multilevel Option 1

READING 1:   The First Industrial Revolution
C. VOCABULARY   page 192

1. Read each of the words in the box aloud.

2. Invite students to repeat the words after you.

3. Have students work with a partner to locate each word in the reading. Invite them to use clues in the text to help define the words they don't know.

4. Encourage volunteers to share what they learned.

MULTILEVEL OPTION

Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. *The Internet has had a huge **impact** on the way teenagers communicate with each other and get information. / One of the biggest **innovations** in today's gaming industry is virtual reality, which makes users feel like they're in a real, three-dimensional environment. / The agricultural **sector** of society has been deeply affected by climate change. It has caused unpredictable weather patterns that have made it more difficult for farmers to grow crops.*

Have higher-level students complete the activity individually and then compare answers with a partner. Tell the pairs to write a sentence for each word. Have volunteers write one of their sentences on the board. Correct the sentences with the whole class, focusing on the use of the words rather than other grammatical issues.

Background Note

READING 1   page 193

This encyclopedia excerpt focuses mainly on the first industrial revolution in Britain, which occurred between the 1750s and 1840s. In terms of employment, textiles were the dominant industry, producing mostly cotton. Cotton mills were centered in urban areas, including Manchester and Liverpool. These towns had fast flowing rivers, necessary to supply the factories with a constant power supply. Such towns quickly became large cities as those from rural areas flocked there to find work. While people's wages and standards of living witnessed unprecedented growth due to the first industrial revolution, this period also saw higher infant mortality rates and a major increase in child labor. Children at this time were typically paid much less and worked in less healthy conditions than adult factory workers. Many workers also contracted diseases of the lung and respiratory system due to the high levels of pollution caused by the factories. These factory workers comprised a new "working class", and were below the "middle class," which consisted of industrialists, factory owners, and businessmen.

Multilevel Option 2

WRITE WHAT YOU THINK   page 198

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

---

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Call on volunteers to share their responses.

MULTILEVEL OPTION

Lower-level students should take notes during the discussion. They can then look at these notes as they are free writing if they run out of ideas. Higher-level students could use their free writing to develop a one-paragraph response to one of the questions.

Expansion Activity 2

READING SKILL page 199

1. Discuss some of the reasons why authors write. Put students' ideas on the board.

2. Read the first paragraph aloud. Check comprehension: *What does* intent *mean? What are three purposes a writer may have? How will identifying the author's intent help you?*

3. Ask volunteers to read each column of the chart. Discuss the three reasons and their differences.

21ST CENTURY SKILLS EXPANSION

The ability to identify an author's intent is an essential part of information literacy. Understanding the author's intent can help students decide whether information is suitable for a particular need. Discuss how knowing or understanding someone's intent will help them both as students and as employees. For example, an article written solely for entertainment purposes might not be a good choice for researching a term paper at school or for using as a source for a work report.

Multilevel Option 3

D. IDENTIFY page 200

1. Read the directions aloud.

2. Ask students to work individually to complete the activity. Then have them compare their answers with a partner.

3. Go over the answer to each item by polling the students. Ask: *How many of you say* inform*? How many say* persuade*? How many say* entertain*?* Tally the number for each intent on the board.

4. If everyone agrees, ask which details help support their choice. If there is disagreement, ask students to defend their choice by referring to specific details from the excerpt. Note that excerpts may have more than one intent.

MULTILEVEL OPTION

Have lower-level students work with pairs. Assist these pairs as necessary. When higher-level students finish, ask them to look back at Reading 1 and find examples of other excerpts that are trying to inform, persuade, and entertain. Tell them to identify the paragraph number the excerpt comes from. Have them read their examples and their choice of intent to the rest of the class. Provide feedback as necessary.

Background Note

READING 2 page 203

The majority of glass today is made from sand, which is heated until it melts and turns into a liquid. Because of the extremely high temperatures that are needed to melt sand (around 1,700 degrees Celsius, 2,090 degrees Fahrenheit), glass is an expensive material to produce, a major factor when considering its use in building construction. Compared to plastic, glass is much more environmentally-friendly. It is 100% recyclable, meaning no extra materials are required in the manufacturing of recycled glass. It also never loses its integrity despite the number of times it is recycled. Today, many consumers prefer to purchase glass packaging over plastic because of these environmental benefits. However, the transportation costs of glass packaging are higher due to its heavier weight.

Expansion Activity 3

WORK WITH THE VIDEO page 208

1. Put students into pairs. Instruct each pair to get out a blank piece of paper and make a square grid with the following labels. Draw the grid and labels on the board.

	Artificial Light	Natural Light
Advantages		
Disadvantages		

2. Have pairs brainstorm the advantages and disadvantages of being exposed to artificial and natural light. Tell them to write their ideas down in the appropriate box in the grid. Allow students to research online to identify more advantages and disadvantages.

3. Elicit students' ideas and write them on the board, or have volunteers write them down for you.

4. Ask pairs to discuss whether it's better to have more natural or artificial light at home, at school, and at work. Elicit their ideas and add any new advantages and disadvantages on the board.

5. Finally, ask students to think about where they live and write a paragraph about whether or not they would change the way their home is lit. Would they add more natural or artificial light in their bedroom, living room, or kitchen? Would they reduce the amount of natural or artificial light? What changes would they make?

6. Encourage students to support their opinions with reasons and examples. Collect the students' paragraphs and provide feedback on their ideas.

Vocabulary Skill Note

USING THE DICTIONARY page 209

1. Ask students how they usually choose the words they want to use when they are writing. Put some of their ideas on the board.

2. Read the first paragraph aloud. Then ask volunteers to read each section of the skill box.

3. Check comprehension: *What should you do if you don't know the exact definition or how to use a word? Why are the audience, register, and genre important? What can you learn about the word* exacerbate *from the dictionary entry?*

Skill Note

Different words are better suited to different audiences, registers, and genres. Students can choose words from four levels of language: slang, colloquial, standard, and academic. Slang and colloquial word choices are typical for spoken or informal communication. For an academic essay, students should aim to use standard or academic word choices. When choosing academic words, students need to be aware of the connotations of synonyms. Examples include: *plan* vs. *scheme*, *famous* vs. *notorious*, *intelligent* vs. *cunning*, *uneducated* vs. *ignorant*, and *slim* vs. *emaciated*. Students can avoid problems by consistently looking up words in the dictionary.

Grammar Note

SUBJECT−VERB AGREEMENT page 218

1. Briefly model subject-verb agreement with an example sentence. Ask students if they ever make mistakes with subject-verb agreement.

2. Direct students to read the first paragraph in the box. Go over the remaining sections, providing additional example sentences as needed.

3. Check comprehension: *How can you avoid subject-verb agreement errors? What should you check when prepositional phrases, noun clauses, or quantifiers are used?*

Skill Note

Compound subjects can sometimes cause problems for students.

- When the subject has two nouns connected by *and*, the verb is usually plural. For example: *My sister and her friend are studying English.*

- When the subject has two nouns connected by *or*, the verb is usually singular. For example: *My sister or her friend is studying English.*

- However, when the second noun is plural, the verb is plural. For example: *My sister or her friends are studying English.*

Other tricky nouns include *news*, *five dollars*, and *20 degrees*, which all take singular verbs, and *scissors*, *pants*, and *police*, which all take plural verbs.

Unit Assignment Rubrics

Unit 7 History

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a summary and response essay.*

20 points = Summary or essay element was completely successful (at least 90% of the time).
15 points = Summary or essay element was mostly successful (at least 70% of the time).
10 points = Summary or essay element was partially successful (at least 50% of the time).
 0 points = Summary or essay element was not successful.

Write a Summary and Response Essay	20 points	15 points	10 points	0 points
Summary includes the main ideas of Reading 1 or 2.				
Essay builds a convincing argument using facts, reasons, and examples.				
Subject-verb agreement is accurate.				
Word choices are precise and effective.				
Punctuation, spelling, and grammar are used correctly.				

Total points: _____

Comments:

Background Note

UNIT OPENER pages 224–225

The large photo on pp. 224–225 shows a group of male hikers climbing a mountain in Switzerland in the afternoon sun. The men are carrying large backpacks. Two of the men are using hiking poles to help them climb. There is a large group of tall, jagged, snow-capped mountains in the background.

Expansion Activity 1

UNIT QUESTION page 225

1. Introduce the Unit Question: *What affects people's energy levels?* Ask related information questions or questions about personal experiences to help students prepare for answering the more abstract Unit Question. For example, ask: *Do you ever suffer from low energy levels? What do you do when you need more energy?*

2. Read the Unit Question aloud. Tell students: *Let's start off our discussion by listing things that can give people energy.*

3. Seat students in small groups and direct them to pass around a piece of paper as quickly as they can, with each group member adding one answer to the list. Tell students they have two minutes to make the lists.

4. Call time and ask a reporter from each group to read the list aloud.

5. Use items from the list as a springboard for discussion. *Let's talk about coffee. Why do people drink coffee when they need more energy?*

Multilevel Option 1

A. PREVIEW page 226

1. Have students check the methods they use to feel more energetic.

2. Ask students to share their answers with a partner. Then have them brainstorm other ways people can increase their energy.

3. Call on volunteers to share their answers.

> **MULTILEVEL OPTION**
>
> Put lower-level students in groups to read each method and have a discussion about whether or not they use that method. For higher-level students, have groups write a paragraph about the reasons why some methods are not healthy.

Multilevel Option 2

READING 1: How Can You Boost Your Energy Levels?
C. VOCABULARY page 226

1. Read each of the words from the box aloud.

2. Invite students to repeat the words after you.

3. Have students work with a partner to locate each word in the reading. Invite them to circle clues in the text that help them understand the meaning of each word.

4. Encourage volunteers to share what they learned.

> **MULTILEVEL OPTION**
>
> Group lower-level students and assist them with the task. Provide example sentences to help them understand the words. For example: *A common way to **alleviate** headaches is to take medicine, such as ibuprofen or aspirin. / When you are exercising, it's very important to stay **hydrated** so that you don't lose too much water. / If I do not get a good night's rest, I feel **sluggish** the next day.*
>
> Have higher-level students complete the activity individually and then compare answers with a partner. Tell the pairs to write a sentence for each word. Have volunteers write one of their sentences on the board. Correct the sentences with the whole class, focusing on the use of the words rather than other grammatical issues.

Background Note

READING 1 page 227

Fatigue is generally classified into two types: physical and mental. Physical fatigue refers to the muscles' inability to maintain optimal physical performance. It is usually gradual, and depends on an individual's levels of physical fitness, sleep, and overall health. Mental fatigue refers to a decrease in cognitive performance, i.e., the ability to think, make decisions, solve problems, etc. It is typically due to lack of sleep, insomnia, or being overworked, but may also be a symptom of anxiety, depression, or chronic illness. Both types of fatigue result in reduced alertness, the ability to concentrate, and slower reaction times.

Multilevel Option 3

⑫ WRITE WHAT YOU THINK page 243

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write for 5–10 minutes in response.

6. Ask volunteers to share their responses.

Background Note

READING 2 page 238

This article focuses largely on the biological factors that can cause winter-related fatigue, including lower levels of melatonin and vitamin D produced by the body due to fewer hours of sunlight. In addition to these biological factors, psychologists also note that people can feel more fatigued because they end up spending a lot more time alone indoors due to the colder temperatures, which can make them less active and more susceptible to tiredness, frustration, and irritability, a condition commonly referred to as "cabin fever". People also deal with additional stressors in the winter that can contribute to increased fatigue, such as driving in snow and ice and needing extra time to get to and from work or school.

In extreme cases, some people suffer from seasonal affective disorder (SAD), a more serious condition where one feels depressed only during the fall and winter months. Symptoms of SAD include feeling depressed most of the day, having less interest in activities one normally enjoys, low energy levels, insomnia, and feelings of hopelessness. About 4–6% of Americans suffer from SAD annually, with it being four times more common in women than in men. It is a temporary condition, however, and almost always subsides during the spring and summer when the amount of natural sunlight increases.

Expansion Activity 2

WORK WITH THE VIDEO page 243

1. Review the major food groups with students: grains, meats/proteins, dairy, fruits, and vegetables. Write the five groups at the top of the board.

2. Put students into small groups. Instruct them to brainstorm examples of two to three foods for each group. Elicit the examples from students and write them on the board under the appropriate group, or ask for student volunteers to write them down for you.

3. Instruct groups to discuss which of the foods listed on the board provide the highest levels of carbohydrates, which provide the lowest, and which are in between.

4. Give each group a piece of poster paper and a marker. Instruct the group to make a simple horizontal line graph with an arrow on both ends. Tell them to label the left side of the line "Low in Carbs" and the right side "High in Carbs." Then have them put the foods on the line according to the level of carbohydrates they think each has.

5. Have students put their posters on the board/wall and compare them. Ask students to notice similarities and differences between the groups' guesses. Get them to justify their choices, using the information from the video to help support their ideas.

6. Finally, have groups research the foods online to confirm the amount of carbohydrates each food has and make any necessary changes to their poster.

7. Finish by asking students what they have learned about carbohydrates in different foods and food groups. Ask them if they plan to make any changes to their diet based on what they've learned and write a short paragraph in response. Collect the paragraphs and provide feedback on their ideas.

Expansion Activity 3

WRITE WHAT YOU THINK page 244

1. Ask students to read the questions and reflect on their answers.

2. Seat students in small groups and assign roles: a group leader to make sure everyone contributes, a note-taker to record the group's ideas, a reporter to share the group's ideas with the class, and a timekeeper to watch the clock.

3. Give students ten minutes to discuss the questions. Call time if conversations are winding down. Allow extra time if necessary.

4. Call on each group's reporter to share ideas with the class.

5. Have each student choose one of the questions and write one or two paragraphs in response.

6. Ask volunteers to share their paragraphs.

21ST CENTURY SKILLS EXPANSION

Health literacy is an important skill. Students need to understand how to maintain a healthy lifestyle in order to excel at school and in the workplace. Having a discussion about the benefits and drawbacks of various methods of boosting energy will help students make wise choices. Point out to students that there will be times at school or work when they will need increased energy levels to complete their tasks.

Vocabulary Skill Note

ADJECTIVE / VERB + PREPOSITION COLLOCATIONS page 245

1. Use the examples *curious about* and *worry about* to introduce the skill. Ask students what they are curious about and what they worry about.

2. Read the first paragraph aloud. Ask volunteers to read the examples in the charts. Go over the collocations that express cause and effect.

3. Check comprehension: *What are these common word combinations called? How will knowing collocations help you? What is the difference between* result from *and* result in?

Skill Note

There are many adjective / verb + preposition collocations. Here are some additional examples:

Adjective + Preposition	Verb + Preposition
acquainted with	approve of
addicted to	depend on
prepared for	look forward to
responsible for	prevent from
satisfied with	succeed in

Grammar Note

CAUSE AND EFFECT CONNECTORS page 252

1. Ask students what words they can use in their writing to show cause and effect. Start a list with *because*. Put students' ideas on the board.

2. Direct students to read the text in the box.

3. Check comprehension: *What do cause and effect connectors do? Is the coordinating conjunction* so *connected to the cause or to the effect? When do you use a comma? Are the transitions in the box connected to the cause or to the effect?*

Skill Note

Coordinating conjunctions (*and*, *or*, *but*) join together two independent clauses, and a comma is used before the coordinating conjunction. Subordinators (*because* and *since*) join together dependent and independent clauses. Subordinators are attached to the dependent clause. When the dependent clause comes first, a comma is used between the two clauses. Transitions join together two independent clauses. They come after a period or a semi-colon and are followed by a comma.

Unit Assignment Rubrics

Unit 8   Health Sciences

Unit Assignment Rubric

Student name: _____

Date: _____

Unit Assignment: *Write a cause and effect essay.*

20 points = Essay element was completely successful (at least 90% of the time).
15 points = Essay element was mostly successful (at least 70% of the time).
10 points = Essay element was partially successful (at least 50% of the time).
  0 points = Essay element was not successful.

Write a Cause and Effect Essay	20 points	15 points	10 points	0 points
Essay builds a convincing argument using facts, reasons, and examples.				
Cause and effect relationships in the essay are logical.				
Cause and effect connectors are used effectively.				
Collocations with prepositions are used correctly.				
Essay includes vocabulary from the unit.				

Total points: _____

Comments:

The Q Classroom
Activity A., p. 3
Answers will vary. Sample answers:
1. I speak English, Spanish, and Japanese. English is my native language. I learned Spanish at school because it was mandatory. I learned Japanese at a language school because I wanted to travel to Japan.
2. Yes, I would like to learn another language. When I learn a language, I also learn a little about how other people/cultures think, and this might influence the way I think or my opinions about other cultures' views.
3. I'd like to learn Swahili because I'm fascinated by the cultures of Africa.

Activity B., p. 3
1. Sophy thinks that learning a language helps you understand the culture. Felix believes that speaking more than one language gives you more ways to communicate.
2. Marcus thinks that it isn't necessary to learn new languages to understand a culture and because translation software is easily available.

READING 1
PREVIEW THE READING
Activity A., p. 4
Answers will vary.

Activity B., p. 4
Answers will vary.

Activity C., p. 4
Answers will vary.

WORK WITH THE READING
Activity B., pp. 7–8
1. f. refers to
2. d. tolerance
3. c. The likelihood of
4. e. ambiguity
5. i. bilingual
6. a. acquisition
7. b. motivation
8. g. stereotype
9. l. involve
10. j. cue
11. h. depending on
12. k. immersion

Activity C., p. 9
☑ 1, 2, 4

Activity D., p. 9
1. a. Bilinguals are less likely to develop dementia. (para 1)
   b. Bilinguals are less easily distracted. (para 1)
2. a. Learning a language improves your ability to understand and use social cues. (para 5)
   b. Learning about new cultures can challenge stereotypes. (para 6)
3. a. Language learners often feel comfortable maintaining a conversation even if they don't understand everything in it. (para 8)
   b. Learning more than one new language further improves tolerance of ambiguity. (para 8)
4. a. Learners who can tolerate ambiguity will be more comfortable in social interactions and with future language-learning experiences. (para 9)

b. People who can tolerate ambiguity take more risks and have more innovative ideas, which can help them in their careers. (para 11)
5. a. Universities can improve students' understanding of different cultures on campus. (para 14)
   b. Knowledge of foreign languages is essential for students to become successful global citizens and work with people around the world. (para 15)

Activity E., p. 10
1. T (para 1)
2. T (para 5)
3. F Learning a language involves learning grammar, vocabulary, as well as new social cues and culture. (para 5)
4. F People with a high tolerance of ambiguity find unfamiliar situations such as speaking a second language exciting, rather than frightening (para 7)
5. F In a successful conversation, speakers often don't stop to check the meaning of new words in a dictionary. (para 8)
6. T (para 11)
7. F Most U.S. universities have a minimal language requirement that often varies depending on the student's major. However, students can typically opt out of the requirement by taking a placement test or providing some other proof of competency. (para 13)
8. F Princeton University requires its students to study a foreign language. (para 14)
9. T (para 15)
10. F The author concludes that there is plenty of evidence to recommend language study for all university students. (para 16)

WRITE WHAT YOU THINK
Activity A., p. 10
Answers will vary. Possible answers:
1. Languages are often very useful when looking for a job because employers might need workers who can communicate with people in other countries. For example, salespeople could speak to clients abroad. Other jobs that might require language skills are teachers, healthcare professionals (to talk to patients who speak other languages), flight attendants, customer service representatives, and anyone involved in international trade.
2. Yes, because English has become the language understood and spoken all around the world. Or you could argue no, because not everyone will need to speak English to have a successful work life.

Activity B., p. 11
Answers will vary. Students should expand on their answers from Activity A.

READING SKILL
Activity A., pp. 12–13
Answers will vary. Possible answers:
1. Academic writing; Culture shock, the process of adapting to differences when encountering another culture, has four stages.
2. Business communication; The language-learning program *Say It Again* is the best choice because of its lower cost and better service.
3. Narrative; It is essential to learn even a few basic words of a language before traveling to a new country.
4. Academic writing; Languages change due to internal change and contact with other languages.

5. Academic writing; Learning a second language involves the acquisition not only of linguistic forms but also ways of thinking and behaving in new cultural contexts.

Activity B., p. 13
Answers will vary. Possible answers:
1. Read the subject of the email.
2. Skim the first and last paragraphs.
3. Look at the images. Read the text in larger font first. Skim the text in smaller font.
4. Read the heading. Skim the editorial.

READING 2
PREVIEW THE READING
Activity A., p. 14
Answers will vary. Possible answer:
The author of the article thinks that learning languages is a waste of time, but the authors of the responses don't think it is.

Activity B., p. 14
Answers will vary.

Activity c., p. 14
Answers will vary.

WORK WITH THE READING
Activity B., p. 18
1. equip
2. lingua franca
3. cognitive
4. fallacy
5. plummet
6. is based on
7. spread the myth
8. measure
9. contemporary
10. specialist
11. exploration
12. enhanced

Activity C., p. 19

Against	For
People who speak English don't need to learn another language.	Only 38% of people in Europe speak English.
Computers can translate languages, so schools should focus on more important skills like speaking, listening, debating, and culture.	Learning a language supports speaking, listening, debating, and cultural skills.
Schools should only focus on what's important.	Schools should encourage students to explore new ideas.
Schools only teach languages because they are easy to test.	Languages are not easy to test; it is not sufficient just to measure vocabulary. Learning a language prepares students for future careers, is learning for life. Learning a language is interesting and mind-opening.

Languages are specialist knowledge that only a few people will need.	Learning a language enhances cultural understanding and relationships; can have cognitive and health benefits.
If you want to learn about Germany, you should learn about and visit the country, not learn German.	If you don't speak German, you cannot fully understand the history and culture.

Activity D., pp. 19–20
1. Bak (para 11)
2. Ayres-Bennett et al. (para 10)
3. Jenkins (para 3)
4. Jenkins (para 6)
5. Hudson et al. (para 16)
6. Hudson et al. (para 15)
7. Ayres-Bennett et al. (para 8)
8. Bak (para 12)
9. Jenkins (para 2)
10. Ayres-Bennett et al. (para 10)

Activity E., p. 20
Answers will vary. Sample answers:
1. I disagree because many Europeans do not speak English, and if you don't speak the local language, you will not fully understand the culture of the country where you are living.
2. I don't agree with this statement. Language learning has long-term cognitive benefits, and it will make learning a different language easier in the future.
3. I think this is right because computerization means that translation will soon be a job for computers and not humans.

Activity F., p. 21
1. English is the contemporary lingua franca.
2. Not all universities in my country are committed to teaching foreign languages.
3. Bilinguals have a cognitive advantage over monolinguals in many areas.

WORK WITH THE VIDEO
Activity A., p. 22
Answers will vary. Possible answers:
Deaf and mute people and those who need to communicate with them, such as family members, friends, teachers, governments, public organizations, use sign language.

Activity B., p. 22
Challenges:
- Absence of schools for deaf people in rural Uganda
- Inability to have a real conversation
- Communication limited to simple hand gestures
- Loneliness
- Fear of traveling to new places
Benefits:
- Ability to communicate and express himself
- Increased self-confidence
- Friendship in the class–not alone anymore
- Awareness of the deaf community

Activity C., p. 22
Answers will vary. Possible topics for discussion include:
The traveling teacher is a good idea because setting up schools for the deaf in rural areas would probably be expensive.

However, one person cannot reach all deaf people, and they are only receiving limited education. Between lessons, deaf children are still isolated. It might be better to build schools for the deaf in large cities. The internet could be used to provide more instruction in sign language. It would also help build a community among deaf children across Africa. The government or non-profits could fund summer camps or other opportunities for deaf children to meet, improve their sign language, and make friends.

WRITE WHAT YOU THINK
SYNTHESIZE, p. 23
Answers will vary. Sample answers:
1. I disagree with the requirement because motivation is important for language learning, and students who are required to take language classes are rarely motivated by them. However, I believe universities should strongly encourage language classes by telling students the benefits of bilingualism.
2. I believe sign languages should be offered as second or foreign language classes in at least one school and one university in a medium-sized city or area with small towns, and in more schools and universities in large cities and communities with a larger deaf population.
3. On the one hand, a global lingua franca would save many people a lot of time and effort in learning languages since, at most, everyone would need to learn one language rather than multiple languages. However, overall, I don't think a lingua franca is desirable because it gives too much power to the native speakers of that language.

VOCABULARY SKILL
Activity A., p. 24
1. knowledge
2. wisdom
3. scholarship
4. experience
5. lore
6. literacy
7. learning / wisdom

Activity B., p. 24
Answers will vary. Possible answers:
1. issues / difficulties
2. change / movement
3. concept / notion
4. view / point of view / viewpoint
5. communicate / express

WRITING SKILL
Activity A., p. 26

Element	What did the writer do wrong?	How could it be improved?
Subject	unclear subject line	Permission to enroll
Greeting	does not use the teacher's name	Dear Professor Chen,
Self-introduction and purpose	no self-introduction; no clear action requested	I am a second-year student, and I am asking for permission to enroll in your Greek 101 class.
Appeal (authority, emotion, or logic?)	emotion: weak appeal because it shows the writer as irresponsible and does not give the professor a good reason to accept the request	I am very interested in studying Greek because my major is history, and I want to participate in a summer program on Greek history in Athens next year. Unfortunately, I missed the registration deadline because of an emergency situation last night.
Thanks	no thanks, just a vague request for help	Thank you for considering my request, and my apologies for any inconvenience.
Closing	first name is not appropriate unless the professor already knows the student well	Sincerely, Meg Worden Student ID: 702432987

Activity B., p. 26
Answers will vary. Possible answers:
1. Logic. Yes.
2. Authority. Yes.
3. Logic. Yes.
4. Emotion. Yes.
5. Authority. No (this is probably not relevant to the manager).
6. Emotion. Maybe (sometimes showing enthusiasm is persuasive, but the manager might not want to spend money to fulfil an employee's personal interest in this way).

Activity C., p. 27
Answers will vary. Possible answers:
1. It appears that Bella and Lin have already met. Bella may choose to use Lin's first name to remind Lin of their meeting and create a friendly tone for the email.
2. The second paragraph describes what happens in ICB Training's workshops and why they will benefit Lin's company. This an appeal to logic.
3. In the third paragraph, Bella shows that the workshops are based on research and they are popular with clients. These are two appeals to authority.
4. In the fourth paragraph, Bella mentions a discount and suggests that she is especially interested to share it with Lin, creating a personal connection.
5. This is a strong persuasive email because it is polite, friendly, and informative. The writer uses different types of appeals to show why Lin's company should hire ICB to give workshops.

GRAMMAR
Activity A., p. 29
1. Although
2. However
3. even though
4. yet
5. However

6. while
7. yet
8. Even though

Activity B., pp. 29–30

1. Although the children did not all speak the same language, they learned to communicate.
2. While there are more than 6,000 languages in the world, the United Nations operates with only six official languages.
3. The translation was accurate, yet the book was extremely difficult to understand.
4. Researchers have studied most of the world's languages. However, new languages are still being discovered.
5. Some research indicates that immersion environments are best for young language learners. On the other hand, learning languages in a classroom seems more effective for teenagers.

The Q Classroom

Activity A., p. 35
Answers will vary. Sample answers:
1. I think service jobs, like cashiers and waiters, will not be needed in the future.
2. Jobs are a lot more automated today than when my parents and grandparents were my age.
3. Yes. I use a car sharing service all the time. It is easier, faster, and cheaper to use than a taxi.

Activity B., p. 35
1. Marcus thinks computers and robots will make factory jobs disappear. Sophy thinks customer service jobs will be replaced by apps. Yuna says people used to have the same kind of jobs their entire lives, but that young people will change jobs and careers more often now. Felix wonders if there will be enough jobs for everyone in the future.
2. Answers will vary.

READING 1
PREVIEW THE READING
Activity A., p. 36
Answers will vary.

Activity B., p. 36
Answers will vary.

Activity C., p. 36
Answers will vary.

WORK WITH THE READING
Activity B., p. 39
1. expertise
2. on the margins
3. take advantage of
4. job security
5. benefits
6. automated
7. wage
8. the other end of the spectrum
9. discrimination
10. labor
11. substitute
12. gig

Activity C., p. 40

Workers	Win	Lose	Paragraph
1. People with special skills	☑		4
2. People with creative ideas who can start new businesses	☑		5
3. Retail workers in part-time jobs with low wages	☑		6
4. Older workers and retired people	☑		9
5. People who work for traditional companies		☑	10

Activity D., p. 40

Benefit from the gig economy	Lose in the gig economy
website designers people with disabilities part-time salespeople doctors small-business owners *Other ideas:* lawyers, artists, delivery drivers, photographers, consultants	accountants taxi drivers supermarket cashiers customer-service representatives *Other ideas:* hotel workers, technical-support positions, administrative assistants

Activity E., pp. 40–41
Answers will vary. Possible answers:
1. You could only get good wages and benefits with a full-time job.
2. Workers can put together a number of gigs they enjoy, which together give them good wages and job security.
3. They do not earn a lot of money, they do not have job security, they often do not receive benefits, and they are completely dependent on their employers.
4. In the gig economy, these workers can choose the times they work and which jobs they take.
5. These people did not have access to good jobs, but they can now work in ways that fit their situation, such as working from home.
6. Corporate workers without special expertise can be replaced by technology, or their jobs can be eliminated or sent to people whose wages are lower.

Activity F., p. 41
1. A good job is a stable full-time position that cannot easily be replaced and offers good wages and benefits—for example, in leadership, management, or technical fields. Good work means activities that can provide steady employment, enough money, flexibility, independence, meaning, such as driving for a ride-sharing app.
2. Because there will be fewer "good jobs," workers will need to be more flexible and independent in the gig economy. The author suggests that some people (for example, those whose jobs can be done by a machine) may need to learn new skills or be willing to take multiple part-time gigs in order to be successful.
3. No, the bad jobs will still exist, but some of these workers will be able to leave them and find better work. However, it still might not be good work because they might not find benefits or job security.

WRITE WHAT YOU THINK
Activity A., p. 42
Answers will vary. Possible answers:
1. The gig economy has given us more control because it allows us to take many freelance jobs instead of working full-time for one employer. This gives us more freedom, control, and flexibility. However, it also may mean less job security, and it requires a great deal of expertise in particular areas to avoid being pushed to the margins.
2. I would like to be my own boss and control my own work schedule, so I'd prefer to have gig work.

3. Taxi drivers are losing in the gig economy because ride-sharing services are taking their work and giving it to people who have no training or license. This is potentially dangerous for customers. The hotel industry is also losing money to room-sharing services, which could affect their employees. In general, though, consumers benefit from lower prices and greater choice and competition.

READING SKILL

Activity A., p. 43

<u>Economists agree</u> that the sharing economy represents a major change in the world of work. (However, they disagree) about whether the changes will be positive or negative for people who want to earn money through these platforms. <u>Advocates such as Sundararajan (2016) claim</u> that these new working conditions will give workers more control over their earnings. <u>Some economists regard this as</u> positive because it will increase the efficiency of the sector. (On the other hand, Hill's (2015) concern) is that gig work is unstable, and workers can be easily exploited. <u>In a recent study, Shor and Attwood-Charles (2017) found</u> wide variation in workers' experiences. Some spoke very positively about labor conditions, while others were highly critical. <u>According to Shor and Attwood-Charles</u>, each company is different, and their policies change over time, so it is impossible to say whether the sector as a whole offers good or bad employment.

Activity B., p. 43

Is the sharing economy good or bad for workers?	
Sundararajan's opinion	The sharing economy gives workers more control over their employment.
Hill's opinion	Gigs are not secure work, and workers can be easily exploited.
Shor and Attwood-Charles's opinion	It depends on the sharing company: some treat workers well, while others do not.

READING 2
PREVIEW THE READING
Activity A., p. 44
Answers will vary.

Activity B., p. 44
Answers will vary.

Activity C., p. 44
Answers will vary.

WORK WITH THE READING
Activity B., pp. 47–48
1. k. scraps
2. e. freelancer
3. l. transaction
4. j. hypothetical
5. a. algorithm
6. d. entry-level
7. h. supply
8. b. at stake
9. i. the degree of
10. f. accumulate
11. c. take a cut
12. g. demand

Activity C., p. 48
☑ **1.** Paragraph 3
☑ **3.** Paragraph 2
☑ **4.** Paragraph 4
☑ **6.** Paragraph 7
☑ **7.** Paragraph 3
☑ **8.** Paragraph 5
☑ **9.** Paragraph 6 and 7

Activity D., p. 49
1. f
2. h
3. a
4. c
5. g
6. d
7. b

Activity E., p. 49
Answers will vary. Possible answers:
1. Owners benefit because they can earn money sharing possessions that they are not using. The community benefits because sharing creates cohesion among its members. Sharing is good for the environment because it reduces consumption and use: if one car can be shared among several people, there are savings in materials and energy.
2. They take a proportion of every purchase or rental from the buyer or seller.
3. They might find they have unexpected costs, which lowers their wages. In addition, they might have less control over their working hours because the algorithm might force them to work at inconvenient times due to an excess of supply or patterns of demand that the worker cannot control.
4. In the gig economy, suppliers and customers review each other, and these reviews help decide who gets the best work, or any work at all. Since the technology company behind the sharing service owns those reviews and doesn't share them with other services, workers depend on them for their reputation and earnings.
5. The statistics show that many people are working gigs because they have no choice, which suggests they would prefer a full-time job. It also suggests that many people are forced to work without benefits. The number of young people in the gig economy is worrying because they may be missing the opportunity to develop a career.

Activity F., pp. 50–51
1. A (were expected to; Instead; actually)
2. D (were supposed to)
3. A (reality)
4. D (claimed)
5. D (Although, may, slightly)
6. A (much more likely)
7. D (mistaken, assumption, would)
8. A (point out, clearly, potentially)

WORK WITH THE VIDEO
Activity A., p. 51
Answers will vary.

Activity B., p. 52

Gig	How do they make money?
Website	(Not explained: possible answer) Publicity for their other ventures; advertising
Stock photography	Selling photos
Video clips	Selling clips
Shop	A store where they sell prints of their photos
Podcast	(Not explained: possible answer) Advertisements and sponsorship

Activity C., p. 52
Answers will vary. Possible answers:
Offering rides, writing newspaper and magazine articles, keeping a blog, transporting important letters and packages

WRITE WHAT YOU THINK
SYNTHESIZE, p. 53
Answers will vary. Possible answers:
1. I am more persuaded by the disadvantages of the gig economy. It seems that the companies that run the services are more interested in profit than in sharing, and they can easily take advantage of workers.
2. Obviously, all companies need to make a profit in order to survive and grow. However, if they do not take any responsibility for improving people's quality of life, they are likely to make decisions that will harm their employees and customers as well as society as a whole.
3. The sharing economy would be very good for professional musicians as it would allow them to find gigs and work flexible schedules that allow them to create their music. Musicians could also use digital technology to make music for podcasts, online videos, and other emerging platforms.

VOCABULARY SKILL
Activity A., p. 54
1. c
2. a
3. b
4. a
5. c
6. b

Activity B., p. 54
Answers will vary.

WRITING SKILL
Activity A., pp. 55–58
1. a, c
2. a
3. There is no doubt / However / According to / Furthermore, a recent poll in Australia found
4. b, c, d, e
5. a, b
6. b
7. Answers may vary. Possible answers:
    a. This would be a traditional essay conclusion but might not be very interesting to readers of the newsletter.
    b. This would be a good conclusion because it connects the main ideas to one central idea of being a flexible freelancer with technology expertise.
    c. This would be appropriate for readers who are considering journalism as a career.

GRAMMAR
Activity A., p. 59
1. that
2. where
3. who
4. that
5. if
6. how
7. if/whether

Activity B., p. 60
Answers will vary. Possible answers:
1. Many Americans feel that a job is part of their identity.
2. Young people wonder what the jobs of the future will look like.
3. Experts ask whether we will still need teachers and doctors.
4. Supporters of the gig economy argue/claim that freelance work is more flexible than full-time jobs.
5. The article discusses how sharing websites work in developing countries.
6. Some economists claim/argue that the potential benefits of the gig economy are greater than its current problems.

The Q Classroom

Activity A., p. 65

Answers will vary. Possible answers:

1. A photograph can alter the perspective of the subject so that it appears closer or further away.
2. Advertisements can make products and services seem more appealing than they actually are.
3. The people and the top part of the tunnel in the photograph are real. The spaceship and the tunnel at the bottom are not real. They are chalk drawings using perspective tricks to create the illusion of another area below the floor. It was probably used as advertising for the *Star Wars* movies.

Activity B., p. 65

1. Felix thinks that it depends on the picture and that certain angles or lighting can change the subject. Marcus agrees with Felix. He says that with image software, you can change a photo. Sophy adds on to Felix's point. She mentions touched-up photos in magazines. Yuna thinks that any picture can only represent one moment, so it never represents the whole truth.
2. Answers will vary.

READING 1

READING SKILL

Activity A., pp. 66–67

1. a
2. b
3. a
4. a
5. c

Activity B., p. 67

Answers will vary. Possible answers:

1. Utah and Kentucky stand out the most because Utah is the only state in white, and Kentucky is the darkest shade of green on the map.
2. Yes, they can represent the same data. The range on the y-axes is from 980 to 1,000 in the second graph, so it shows greater detail.
3. I think Figure 3 represents the percentage of people from each ethnicity polled that enjoys watching or playing baseball.

PREVIEW THE READING

Activity A., p. 67

Answers will vary.

Activity B., p. 67

Answers will vary.

Activity C., p. 68

Answers will vary.

WORK WITH THE READING

Activity B., p. 71

1. distort
2. prominent
3. scale
4. campaign
5. visualize
6. skyrocketed
7. Take … with a grain of salt
8. manipulated
9. error-prone
10. misleading

11. transformations
12. unprecedented

Activity C., p. 72

a. 2; Paragraph 3
b. X; Paragraph 15
c. 1; Paragraph 2
d. 4; Paragraphs 8–10
e. 5; Paragraphs 11–14
f. X; Paragraph 9
g. 3; Paragraphs 4–7

Activity D., p. 72

Figure	What does it appear to show?	What does it actually mean?
1	That KY has a very large number of smokers and that UT has very few smokers.	27% of people from KY smoke, and 23% of people from UT smoke.
2	That the number of fraudulent data visualizations is stable/skyrocketing.	There was an increase of 20 fraudulent data visualizations from 2016 to 2018.
3	Percentage of people who enjoy baseball per ethnic group.	Percentage of those surveyed from each ethnic group who enjoy baseball.

Activity E., p. 73

1. paragraph 8
2. paragraph 5
3. paragraph 7
4. paragraph 10
5. paragraph 14
6. not recommended in the article

Activity F., pp. 73–74

Answers may vary. Possible answers:

1. This infographic only shows data for two years, 2013 and 2018. It does not show how many visitors there were in-between.
2. Zone 1 sticks out as being a very high crime area, while the center seems to have very low crime. Without the data, we do not know just how big the difference is.
3. The units for the "Other Brands" bar are sad faces, indicating a bias. There is also no y-axis, which could mean that there were only a total of seven people polled.
4. The average number of car crashes are only for drivers aged 46–65, so the information is likely distorted to make a point using only a small portion of the population. Also, it only shows crashes in the morning; there might actually be more overall car crashes at a different time of the day.

WRITE WHAT YOU THINK

Activity A., p. 74

Answers will vary. Possible answers:

1. Yes, I have seen infographics that have been distorted in commercials for toothpaste. The commercial claimed that nine out of ten dentists recommend the same brand, but they do not say how many dentists were asked. I think that the ad did this in order to trick customers into buying their toothpaste.

2. I agree. I think that people are more easily persuaded by images than text because if they can see something, they're more likely to believe it.
3. They can contain opinions; they can have a small sample group; they can be included to make a study look more scientific or trustworthy.

READING 2
PREVIEW THE READING
Activity A., p. 75
Answers will vary.

Activity B., p. 75
Answers will vary.

Activity C., p. 75
Answers will vary.

WORK WITH THE READING
Activity B., p. 78
 1. provoke
 2. leave in the dark
 3. concoct
 4. bias
 5. alteration
 6. scrutinize
 7. credible
 8. ethical
 9. legitimate
10. inherent
11. document
12. tempting

Activity C., p. 79
1. Paragraph 1. The photographer, printer, editor, or viewer each has their own biases and interpretations, so manipulation in photography is inherent.
2. Paragraph 3. Most people think they can believe the photographs they see in the news media because they have taken photos themselves, and they trust those pictures to be true representations of their experiences.
3. Paragraph 4. It is much easier to manipulate a photograph using modern software, and the means to do so are more widely accessible.
4. Paragraph 8. The example of the pyramid in *National Geographic* shows that credibility in photojournalism is fragile or delicate in that once it is lost, it is very difficult to get it back.
5. Paragraph 12. The examples are important because in each case, readers assumed the photo was unaltered. If they were to find out that such a basic assumption was wrong, they would feel these photos were lies.

Activity D., p. 79
1. d
2. c
3. e
4. a
5. b

Activity E., p. 80
Answers will vary. Students should justify their opinions using evidence from the reading.

Activity F., p. 80
1. photography
2. its early practitioners
3. the trust in photojournalism / This credibility [of photojournalism/photography]
4. the opportunities for fictionalizing images become even more numerous and tempting
5. The alteration

Activity G., p. 81
Answers will vary.
1. According to Figure 1, most young people get their news from the Internet. TV and radio are somewhat popular, but very few young people read newspapers.
2. Far more people aged 60 or older read newspapers than people between the ages of 25 and 59.
3. If companies are targeting older customers, then they should still consider advertising in newspapers. In general, though, they would be better focusing on Internet marketing.
4. Newspaper sales have been declining since around 1990. The decrease has accelerated in recent years.
5. Most newspapers now publish articles online as well as in print. Since younger readers prefer to get their news from the Internet, it is possible that they are reading traditional newspapers online.

Activity H., p. 81
Answers will vary. Sample answers:
1. I don't have a very strong visual memory, so photographs are very important for me. They remind me of where I've been and what people look like. They bring back memories and allow me to share them with others.
2. I think photography is an art form, and like any type of art, it documents the time in which it was made. Because a photograph is a selective image of reality, a good photographer needs an artistic eye to compose a good picture.
3. It depends on the type of manipulation. I don't mind if distracting objects or people are removed from the image, but I would object if the altered image shows something untrue.

WORK WITH THE VIDEO
Activity A., p. 82

Map	Information
Two-dimensional drawings	Physical features (e.g., mountains, roads) on scale (size on map is proportional to that on landscape)
Thematic maps	Geographic concepts (e.g., population or language distribution)
Satellite imagery	Unusual features (e.g., archaeological sites, islands we did not know existed) Produce composite images of an entire hemisphere; show how the Earth changes (e.g., with seasons, war, agriculture, population, forestry)
Sonar maps	Underwater features (e.g., topography of the bottom of the sea)

WRITE WHAT YOU THINK
SYNTHESIZE, p. 83
Answers will vary. Possible answers:
1. Drawn maps could be easily manipulated or distorted to change boundaries, distances, and area sizes. Maps created with satellite images could be distorted either by editing the pictures or using images taken on a certain day or during a special event, such as a climatic one, which would distort the image.
2. Marketers could use photo software to make their products look more appealing. They could also use data manipulation techniques to make their products seem more useful than they actually are.

VOCABULARY SKILL
Activity A., pp. 83–84
1. c
2. c
3. c
4. b
5. a
6. b
7. c
8. c

Activity B., p. 84
1. circle/round
2. other/different
3. follow
4. life
5. write
6. law
7. thousand
8. break

WRITING SKILL
Activity A., p. 85
Students should cross out:
1. The web page also shows the menu and weekly special coffees.
2. The next change we recommend is to include customer comments on the web page.
3. There will be also be a page to promote upcoming events at the cafe.

Activity B., p. 86
1. **A:** Make Rudy's look impressive
   B: Stimulate demand
   C: Basic features of the map
   D: Make Rudy's look more accessible
2. **a.** ✓; **b.** ✗; **c.** ✗; **d.** ✓; **e.** ✗

Activity C., pp. 87–88
Answers will vary. Possible answers:
1. Paragraph 1: to thank the customer and introduce the ad
   Paragraph 2: to introduce the map and the main idea behind it
   Paragraph 3: to describe how the map will show that the store is popular and well known
   Paragraph 4: to describe how the map will make the store appear more accessible
   Paragraph 5: to describe how the map will make a good impression graphically
   Paragraph 6: to close and express a promise of success

2. A well-drawn map can highlight the strengths of Rudy's business without showing its weaknesses.

Activity D., p. 88
Answers will vary. The slogan should support the concept presented with the map design.

GRAMMAR
Activity A., p. 90
1. Some
2. too many
3. Almost all
4. a little
5. Few
6. a lot of

Activity B., p. 90
1. b
2. a
3. a
4. b
5. a

Activity C., p. 90
all; most of; few of; a number of; a great deal of; several; a few; some; plenty of; any

The Q Classroom
Activity A., p. 95
Answers will vary. Sample answers:
1. In my English class, I work with students from other countries. When we work together, we often see things from different points of view. Our different viewpoints and experiences help us think of better answers and solutions.
2. One of the big issues affecting my country and many other countries is global warming. Last year, we had the hottest summer on record. I stayed inside in the air conditioning most of the time. Because it is a worldwide problem, global warming can only be solved if countries work together to find solutions.
3. The UN promotes cooperation among its member states by, for example, having them agree on peace treaties and environmental regulations, sending medical and food aid to regions in need, and promoting and defend human rights, etc.

Activity B., p. 95
1. Marcus thinks that global cooperation is important for preventing wars and conflicts. Felix thinks that global cooperation helps countries learn from each other. Yuna thinks international cooperation is important to deal with environmental problems. Sophy thinks global cooperation is necessary because it helps people who have different perspectives on the same things learn from each other.
2. Answers will vary.

READING 1
PREVIEW THE READING
Activity A., p. 96
Answers will vary.

Activity B., p. 96
Answers will vary.

Activity C., p. 96
Answers will vary.

WORK WITH THE READING
Activity B., pp. 99–100
1. b
2. a
3. a
4. b
5. a
6. b
7. b
8. b
9. a
10. a
11. b
12. a

Activity C., p. 101
1. Plant species are disappearing quickly, and scientists and governments are working to save them.
2. The Global Seed Vault has the goal of storing seeds from all over the world in case an emergency destroys any of them.
3. The United Nations International Treaty on Plant Genetic Resources created a global network for banking and sharing seeds, as well as studying their genetic traits.

4. The Intergovernmental Panel on Climate Change decided that plants will be affected by global warming, as well as by extreme weather events.
5. The Global Seed Vault is located in a safe place that is cold enough to protect seeds and plants.
6. Preserving a variety of plant genes in the Global Seed Vault is going to help protect the world's food supply from changing climate conditions or new plant diseases.

Activity D., p. 101
1. a
2. e
3. g
4. j
5. h
6. d
7. i
8. f
9. c
10. b

Activity E., p. 102
1. 12
2. 4
3. 23
4. 19
5. 2
6. 15
7. 14
8. 10
9. 13
10. 20

Activity F., p. 102
Answers will vary.

WRITE WHAT YOU THINK
Activity A., p. 102
Answers will vary. Possible answers:
1. I think the new global partnerships will help the world in other ways. If countries are able to work together to collect and preserve the world's seeds, they can learn from this experience and apply it to other problems. For example, countries could cooperate more on medical or scientific research.
2. I do think the Global Seed Vault will be successful. First of all, the location is very remote. Also, Norway is a very stable place. Finally, the cold temperatures will preserve the seeds. If the Global Seed Vault is not successful, the world's food supply could be vulnerable to many kinds of disasters.
3. I'm from Japan, and we have some special plants that I think should be kept safe. For example, wasabi is a kind of horseradish that you eat with fish, and it is also good for your health. I would like to see wasabi seeds preserved in the Global Seed Vault because they are part of Japanese culture.

READING SKILL
Activity A., pp. 103–104
1. c
2. d
3. b
4. a
5. f
6. e

Activity B., p. 104
Answers will vary. Possible answers:
1. As many of the world's seeds as possible should be stored in a safe place that is cold and far away.
2. Mexico's climate is perfect for growing corn, and corn is popular there.
3. Many countries are working together and sharing information to solve the problem of protecting the world's plant diversity. Scientists had probably been hoping that this would happen for a while.
4. Seed banks in the Philippines are at risk from natural disasters.

READING 2
PREVIEW THE READING
Activity A., p. 105
Answers will vary.

Activity B., p. 105
Answers will vary.

Activity C., p. 105
Answers will vary.

WORK WITH THE READING
Activity B., pp. 108–109
1. devote
2. reassemble
3. inhabited
4. daunting
5. quarantined
6. mediator
7. missions
8. navigate
9. intensively
10. mundane
11. dominated
12. orbit

Activity C., p. 109
a. 6
b. 5
c. 2
d. 1
e. 3
f. 4

Activity D., p. 110
1. e
2. a
3. d
4. c
5. e
6. f
7. c
8. b
9. d
10. b
11. f
12. a

Activity E., p. 110
Answers will vary. Possible answers:
1. The U.S.: astronauts, training
2. Russia: astronauts, spacecraft, training
3. Canada: robotics systems, astronauts

4. Kazakhstan: launch site
5. Germany: training
6. Japan: astronauts

Activity F., p. 111
1. e. Edward Tabarah
2. f. Robert Thirsk
3. d. Gwenn Sandoz
4. a. Chris Hadfield
5. c. Roman Romanenko
6. b. Akihiko Hoshide

Activity G., p. 112
Answers will vary. Possible answers:
1. Astronauts from all over the world work there. For example, the article mentioned astronauts from the United States, Russia, Canada, and Japan.
2. Only a few astronauts can make these trips, so they have to fulfill all the duties. The article says that Hadfield had "to be a scientist, a plumber, an electrician, trilingual, a spokesperson, a mediator, an engineer, and … a commander." If each person on the ISS only had one specialized job, there would be too many people to fit into the ISS, and it would be much more expensive to send up the larger number of astronauts.
3. Yes, astronauts should know more than one language because they will be communicating with other astronauts from a variety of countries, such as the United States, Russia, and Japan. For example, the article states that Chris Hadfield is trilingual because astronauts have to speak English and Russian. Hadfield also speaks French because it is a requirement for Canadian astronauts.
4. The ISS is an international effort; for example, the article mentions the United States, Canada, Russia, Kazakhstan, Japan, Germany, and the European Space Agency. In addition, no single country has the resources to work alone. For example, the article states that the United States no longer has a space-shuttle program and the Russian Soyuz is the only way to travel to the ISS.
5. At this time, there does not seem to be enough support to travel to Mars, so it seems like only a dream or fantasy. For example, in the article, missions to Mars are referred to as "science fiction." In addition, the astrophysicist Adam Frank does not sound very positive in the article when he talks about how a 15- or 20-year goal is too long.

Activity H., p. 112
Answers will vary. Possible answers:
1. I think one of the main challenges would be language. If there were many people from different countries, we would have to choose one language to communicate in. I think I would be successful because I would work really hard at trying to communicate with people.
2. I think global cooperation is necessary because the project is huge and expensive. If lots of countries work together, a much better space station can be built.
3. The International Space Station is a very important project. Although it is expensive, it is worth the money. However, one project that I think is more important than the International Space Station is fighting world hunger.

WORK WITH THE VIDEO
Activity A., p. 113
Answers will vary.

Activity B., p. 113
1. Ethiopia
2. Kazakhstan
3. Korea
4. China
5. Australia
6. Countries can't produce all of the things they need because some things, like oil, gold, and coffee, are not found everywhere. Some countries might also trade with each other to make money.
7. Countries can make money by importing cheaper raw materials and changing them into finished products. Countries can then sell these items to other countries at a higher price.

Activity C., p. 113
Answers will vary. Possible answer:
Global cooperation is important for international trade because no one country can produce all of the things it needs. Thus, every country has to import some goods. If countries cooperate with each other, trade will be more efficient and less expensive. For example, the members of the European Union cooperate on importing and exporting goods between them.

WRITE WHAT YOU THINK
SYNTHESIZE, p. 114
Answers will vary. Sample answers:
1. I think the Global Seed Vault is a better example of global cooperation. More countries are participating and benefiting from this project. Also, if the world's seeds are lost or destroyed, it would be a major disaster.
2. I think the importance of international trade is going to increase in the future. The world is becoming more and more interconnected. Countries have to work together because some have raw materials that other countries don't have. If countries cooperate on international trade, these raw materials can be imported and exported more easily between countries.

VOCABULARY SKILL
Activity A., p. 115
Answers for "Possible words" and "Possible parts of speech" will vary.
1. Prefix: multi-; Possible words: multicolored, multimillionaire; Possible parts of speech: nouns, adjectives
2. Prefix: non-; Possible words: nonsense, nonfiction; Possible parts of speech: nouns, adjectives, adverbs
3. Prefix: cryo-; Possible words: cryogenic: Possible parts of speech: nouns, adjectives
4. Prefix: im-; Possible words: impolite, immature; Possible parts of speech: adjectives, adverbs, nouns
5. Prefix: geo-; Possible words: geology, geochemical, geoscience; Possible parts of speech: nouns, adjectives, adverbs
6. Prefix: re-; Possible words: reapply, reassuring; Possible parts of speech: verbs, nouns, adjectives, adverbs
7. Prefix: inter-; Possible words: interaction, international; Possible parts of speech: verbs, nouns, adjectives
8. Prefix: mal-; Possible words: malpractice, malfunction; Possible parts of speech: nouns, verbs, adjectives
9. Prefix: dis-; Possible words: dishonest, disagreeably, disappear; Possible parts of speech: adjectives, adverbs, nouns, verbs
10. Prefix: bio-; Possible words: biodegradable, biography; Possible parts of speech: nouns, adjectives, adverbs

Activity B., p. 116
1. re
2. cryo
3. mal
4. bio
5. geo
6. non
7. multi/inter
8. inter
9. im
10. dis

WRITING SKILL
Activity A., p. 118
1. time
2. specificity
3. emphasis

Activity B., p. 118
1. International peace parks are a good example of international cooperation.
2. The supporting ideas are descriptions of three international peace parks: Waterton-Glacier International Peace Park, La Amistad International Park, and Kgalagadi Transfrontier Park.
3. Chronologically, by the date the park was founded.
4. Answers will vary.
5. Answers will vary.

Activity C., pp. 119–120
Answers will vary.

Activity D., pp. 120– 121
1. Global cooperation is important because it helps countries solve problems that cannot be solved by one country alone, and it promotes peace and understanding between countries.
2. Global cooperation can help solve environmental issues.
3. UNEP coordinates international efforts to promote sustainability for the global environment. The U.S. and Canada work together to fight air pollution.
4. The ideas have been organized according to specificity. The second supporting idea is more specific than the first.
5. Global cooperation can promote peace.
6. The European Union created the European Coal and Steel Community. The EU signed an agreement to create a common market in Europe.
7. Time
8. Global cooperation will make finding solutions to future challenges easier.

GRAMMAR
Activity A., p. 122
1. discussing; (a discussion)
2. build; (building)
3. have sent; (sent)
4. feeling concerned; (concerned)
5. famous; (fame)

Activity B., p. 123
Answers will vary. Possible answers:
1. shoots, and seeds
2. developing education, and fighting pollution
3. new friendships, and environmental conservation
4. disaster response, and education initiatives
5. stop war, and prevent disease

The Q Classroom
Activity A., p. 127
Answers will vary. Sample answers:
1. I spend a lot of time in my local library and at the park.
2. Yes, I can walk to the library, the town hall, the park, the post office, and the bus station.
3. Art can make a public place like a subway station more inviting and less stressful.

Activity B., p. 127
1. Yuna and Sophy think public places should be clean. Marcus and Sophy suggest there should be good natural light. Sophy also says there should be the right amount of space. Felix says they should be beautiful.
2. Answers will vary.

READING 1
READING SKILL
Activity A., p. 129
1. Ray Oldenburg
2. Oldenburg
3. informal public gathering places
4. *The Great Good Place*
5. third places
6. third places

Activity B., pp. 129–130
1. spaces
2. shift
3. term
4. concept
5. problem

PREVIEW THE READING
Activity A., p. 130
Answers will vary.

Activity B., p. 130
Answers will vary.

Activity C., p. 130
Answers will vary.

WORK WITH THE READING
Activity B., pp. 133–134
1. b
2. a
3. b
4. c
5. c
6. b
7. a
8. c
9. a
10. c
11. a
12. b

Activity C., p. 135
1. hybrid
2. studying, eating, teaching, researching, reading, discussing, meeting
3. Bryant Park
4. a workplace
5. third places
6. safe, neutral, informal meeting points

7. in decline
8. businesses
9. technology makes these places isolating, not social
10. create opportunities for people to mingle
11. multifunctional

Activity D., p. 136
1. F; Gehry's Design is controversial.; 1
2. T; 2
3. T; 3
4. T; 4
5. I
6. F; The term *third places* was first created by a sociologist, Ray Oldenburg.; 6
7. F; James Katz blames technology for creating places that are psychologically evacuated.; 9
8. F; At Christopher Waters's cafe, customers cannot use Wi-Fi during poetry readings.; 10

Activity E., p. 136
1. Problem: Spaces were specialized because workers needed access to landline phones and other equipment.; Solution: designed and equipped spaces to be multifunctional; Paragraphs 2, 3, 4
2. Problem: derelict, but visitors were trying to work there; Solution: provided Internet access, desks, and chairs; Paragraph 5
3. Problem: lost its third-place atmosphere; Solution: spotted a new opportunity and added more facilities for people to work in its coffee shops; Paragraph 8

Activity F., p. 137
1. d; The curves create nooks, which can be used differently and provide more wall space. People working on computers like to sit against a wall, for example.
2. a; It provides a place where people can socialize for little or no money.
3. b; Because they live farther from work, they drive in and out without spending time meeting other people.
4. d; People no longer need to be next to a landline phone or a filing cabinet.

Activity G., p. 137
Students should define terms in their own words. Possible answers:
1. hybrid space: a place with many uses
2. semi-public spaces: a place that is in the public, but where people can work
3. coffee and crumbs: beverages and snacks, as you can usually get at a coffee shop
4. cyber-nomads: people who can be anywhere, but are in their own worlds of technology
5. monocultures: places with only one function or cultural use

WRITE WHAT YOU THINK
Activity A., B., p. 138
Answers will vary. Sample answers:
1. My local library is like a third place. The librarians all greet me by name, and I always know some of the other patrons. We all chat and share book recommendations. Of course, the library is free, and it's within walking distance of my house.
2. I can see how technology can isolate people from human contact. However, social networking sites allow us to make contact with people who share our interests, so in this way, technology can be a solution to social alienation. I don't like his idea because I think people will mingle more if they want

to, and it seems odd to have to fill out a profile at a coffee shop or have the Wi-Fi turned off at certain times.

3. Yes. For example, in some countries I've visited, there's a central square in most towns that functions as a third place, where people sit, meet, drink coffee, and chat. That wouldn't be so appealing in my country because the weather is usually too cold for people to spend time outside.

READING 2
PREVIEW THE READING
Activity A., p. 138
Answers will vary.

Activity B., p. 138
Answers will vary.

Activity c., p. 138
Answers will vary.

WORK WITH THE READING
Activity B., pp. 141–142
 1. concede
 2. anticipate
 3. negotiate
 4. accommodate
 5. reinforce
 6. counterintuitive
 7. fatal
 8. appealing
 9. regulated
10. criteria
11. division
12. proponent

Activity C., p. 142
☑ 2, 3, 7, 9, 10

Activity D., p. 143
Answers will vary. Possible answers:
1. Drivers are reminded that they are in a social space that they have to share with other drivers, pedestrians, and cyclists. Therefore, the different users of the intersection negotiate their movements and behave politely and safely.
2. Drivers think that as long as they follow the features' guidelines, they are safe. They do not concentrate on other people, and they do not take responsibility for their actions.
3. Highways belong to the "traffic world", so road signs, lane markings, and speed limits are appropriate there. Pedestrians and bicycles are not usually found on highways.
4. These traditional ways of regulating traffic seem to suggest that drivers cannot think on their own and use their own good judgment.
5. He believed that the problem was the large cars, not the road. A wider road would not be safer. If drivers behaved more politely, the problem could be more easily solved.

Activity E., p. 143
1. F; Monderman is compared to a naturalist in the jungle because he created a natural way to deal with a busy intersection.; para 2
2. F; No one is directing traffic in the intersection that the reporter visits; para 3
3. F; There has never been a fatal accident on any of Monderman's roads.; para 23
4. I

5. F; Until a few years ago, Monderman was virtually unknown outside of Holland.; para 15
6. I
7. F; People drove more carefully; para 22
8. F; Monderman believed there are drivers who will behave badly no matter what the rules are.; para 25

Activity F., pp. 144–145
1. c
2. a
3. c
4. b
5. c
6. a
7. b
8. c

WORK WITH THE VIDEO
Activity A., p. 146
Answers will vary. Possible answers:
Traffic congestion can cause air and noise pollution, health problems, economic problems caused by delays and extra time spent in traffic.

Activity B., p. 146

Causes	Effects	Solutions
-increased car ownership -using cars for short unnecessary journeys -road repairs	-air and noise pollution -drivers' and pedestrians' health risks -stress -longer commuting times -loss of productive time -increased cost of road repair	-build new roads -improved subways and links -congestion charging -cycle lanes -speed cameras -park and ride

WRITE WHAT YOU THINK
SYNTHESIZE, p. 147
Answers will vary. Sample answers:
1. I believe that the design of public spaces should change to better suit our behavior. For example, if more people are using bicycles to commute, there should be more cycle lanes.
2. I think there is no clear solution. Cities should be responsible for making city centers safe and friendly through regulations, but citizens should behave in ways that are safe for themselves and those around them.

VOCABULARY SKILL
Activity A., p. 148
1. I
2. T
3. T
4. I
5. I
6. T

Activity B., p. 148

Verb	1. Complement	2. Correct in paragraph?	
		Yes	**No**
a. appeal	verb + *to somebody*	··	☑
b. accommodate	verb + noun	☑	··
c. occupy	verb + noun	☑	··
d. anticipate	verb + noun	··	☑
e. negotiate	verb + something (no with)	··	☑
f. go	verb + to + noun	☑	··
g. tell	verb + somebody + that	··	☑
h. improve	verb + noun	☑	··
i. concede	concede + that	☑	··

3. The design of my high school did not appeal to me. The designers did not anticipate an increase in numbers. Every day, we had to negotiate the crowded corridors and staircases to go to class. The principal told us that they could not improve the situation.

GRAMMAR

Activity A., p. 150
Answers may vary.
1. b
2. b
3. b
4. a
5. a

Activity B., p. 150
1. are considered
2. are needed
3. be accessed
4. encounter
5. decreased
6. are isolated
7. is designed/was designed
8. concede
9. be regulated

Activity C., p. 151
1. to be interviewed
2. to be designed/to have been designed
3. being told
4. being hit
5. to be seen

WRITING SKILL

Activity A., p. 152
"The Third Place" is the name of a coffeehouse in Raleigh, North Carolina. **Raleigh** is the home of the state capitol and many businesses. However, **many workers** have not had options for spending their time in locations other than their first places (homes in the suburbs) and second places (downtown offices). **The Third Place** is a friendly café that fills this **gap**.
When you walk into **The Third Place**, you first see cozy, inviting chairs. Behind **them**, on the walls, are colorful rugs, suggesting an international theme. Between **the rugs**, you will see pictures

taken by local photographers. **The photos** are changed monthly and really help develop a sense of community. **This feeling of community** is enhanced by the customers, **who** represent the range of Raleigh's inhabitants. **Business people, students, and families** can be found at **The Third Place** on any day of the week.
2. Raleigh, North Carolina ➔ Raleigh;
many workers have not had options for spending their time in locations other than their first places and second places ➔ this gap;
chairs ➔ them;
colorful rugs ➔ the rugs;
pictures taken by local photographers ➔ The photos;
a sense of community ➔ This feeling of community;
customers, who represent the range of Raleigh's inhabitants ➔ Businesspeople, students, and families
3. The writer says that The Third Place is an alternative to the first and second places mentioned in the previous sentence.
4.
   a. (are changed) The passive moves the old information (*The photos*) into subject position, where it links with *pictures taken by local photographers* in the previous sentence.
   b. (is enhanced) The passive allows the writer to put new information (*customers*) at the end of the sentence.
   c. (can be found) The subject of the verb contains three examples of the new information in the last sentence; businesspeople, students, and families represent different parts of the city's population.

Activity B., p. 153
1. Sentence 2: The pronoun *It* refers to *The menu*.
Sentence 3: Food is on the menu.
Sentence 4: The meals are from the menu.
Sentence 5: Weekly specials are items on the menu.
Sentence 6: Coffee is also on the menu.
2. Answers will vary. Possible answers: This / All this / The menu / The food and drinks

Activity D., p. 154
Students should highlight the passage. Examples of each:
1. "One solution" refers to the problem posed in the first two sentences (para. 1); "These windows" refer to the "large picture windows" in the previous sentence (para. 2).
2. "Users may encounter two problems." "One small difficulty … Patrons …may also encounter problems …" (para. 4)
3. "can be found"(para. 1); "is positioned", "are greeted", "can be moved"(para. 2)
4. "dusty books and outdated technology" (para. 1); "large picture windows", "large reading room with comfortable chairs and tables"(para. 2).
5. "my local library …is a good example …" (para. 1); "fresh and appealing" (para. 2); "With these improvements, Kirkwood should be in a strong position to be a sustainable library of the future." (para. 5)

Activity E., p. 154
1. L; [Libraries have responded …in] many different ways
2. L; the subjects are all related to the overall design
3. L; *digital* relates to *e-books* and *digital books*
4. L; books
5. C; difficulty
6. C; the electrical outlets, charging mats, workshops, and written instructions for using the e-books and databases

The Q Classroom

Activity A., p. 159

Answers will vary. Sample answers:

1. I always throw away garbage, but I recycle glass and plastic. When I have old clothes, I donate them to a charity.
2. I think society is very wasteful. For example, when I buy my lunch at school, everything comes in disposable packaging. If we used reusable containers, we would throw away less.
3. The sculpture seems to have been made with pots and milk cans, and some sort of metal. The artist might be trying to say that objects have more than one purpose, or that anything can be art.

Activity B., p. 159

1. Marcus thinks that we should turn trash into treasure to help the environment.
2. Yuna thinks we should recycle. Felix thinks that people should try to sell their trash. Sophy thinks we need to improve our recycling technologies.

Opinions will vary.

READING 1
READING SKILL

Activity A., p. 161

Answers will vary.

Activity B., p. 161

Answers will vary.

PREVIEW THE READING

Activity A., p. 161

Answers will vary. Possible answers: recycling programs, incineration, landfills

Activity B., p. 161

Answers will vary.

Activity C., p. 162

Answers will vary.

WORK WITH THE READING

Activity B., p. 165

1. c
2. b
3. d
4. a
5. e
6. h
7. f
8. g
9. l
10. i
11. k
12. j

Activity C., p. 166

Answers will vary.

Activity D., p. 166

Answers will vary. Possible answers:

1. Singapore's landfill is an artificial island.
2. Singapore recycles as much of its trash as possible and then incinerates the rest.
3. Ash from incinerated trash is dumped into cells located off the shore of the main island.
4. The ecosystem of the island is thriving.

5. The rest of the world can learn about sustainable urbanization from the Semakau landfill.

Activity E., pp. 166–167

1. F (The landfill is located 20 minutes by <u>ferry</u> from the main island.)
2. T
3. F (Singapore incinerates <u>more than 90</u> percent of its garbage.)
4. F (The companies <u>recycle</u> glass, plastic, electronics, and concrete.)
5. T
6. F (The wall is <u>seven</u> kilometers long.)
7. T
8. T
9. F (The government plants <u>grass</u> on each filled cell.)
10. F (The agency <u>replanted</u> the trees in areas adjoining the landfill.)

Activity F., p. 167

1. 1
2. 3, 4, 5
3. 2, 6, 7, 8
4. 9, 10

Activity G., p. 168

Answers will vary. Possible answers:

a. 7
b. 1
c. 6
d. 4
e. 8
f. 2
g. 5
h. 3
i. 10
j. 9

WRITE WHAT YOU THINK

Activity A., p. 168

Answers will vary. Possible answers:

1. Singapore turned its trash into treasure by burning its trash and using the ash to create an island. I think this project is worth the money because something useful is being done with Singapore's garbage.
2. Singapore's solution of creating an island would only work for countries located near the sea. However, garbage could be used to create a mountain in countries without a coastline.

READING 2
PREVIEW THE READING

Activity A., p. 169

Answers will vary.

Activity B., p. 169

Answers will vary.

Activity C., p. 169

Answers will vary.

WORK WITH THE READING

Activity B., pp. 172–173

1. permeated
2. aptitude
3. The concept of

4. participants
5. appliances
6. convenes
7. founders
8. tinkering
9. adjusting
10. devices
11. consequences
12. craftsmanship

Activity C., p. 173
1. g
2. c
3. d
4. j
5. f
6. a
7. h
8. b
9. i
10. e

Activity D., p. 174
1. a
2. a
3. b
4. c
5. d
6. c
7. a
8. c

Activity E., p. 175
1. b
2. e
3. g
4. h
5. f
6. a
7. d
8. c

Activity F., p. 175
Answers will vary. Possible answers:
1. Vegdahl isn't good at repairing his own items.
2. People who are philosophically opposed to waste can convene in repair cafes.
3. People should fix items rather than purchasing new ones. People shouldn't waste.
4. Repairing items is a good way to save money in difficult times.
5. Jacobson wants people to conserve more and waste less.
6. Companies design these products to be thrown away so that people will buy more of them.
7. The author's landlord wanted to save money and time by replacing the washer, instead of having it repaired.
8. RadioShack was not selling enough cables, connectors, and widgets to make a profit. They were more successful selling smartphones and other wireless devices.
9. The watch is cheap and probably won't last long.
10. The author felt proud of and attached to her lamp because she spent time fixing it herself and was successful.

Activity G., p. 176
Answers will vary.

WORK WITH THE VIDEO
Activity A., p. 176
Answers will vary. Possible ideas include: strain and reuse for cooking, turn into fuel for cars and trucks, use to fix squeaky doors, make soap.

Activity B., p. 176
1. The molecular structure of vegetable oil consists of long chains of carbon atoms, similar to diesel and gasoline.
2. Vegetable oils are thick and viscous. They can damage an engine.
3. One solution is using separate diesel and vegetable oil tanks. The engine can start with using diesel, switch to vegetable oil, and then back to diesel before being turned off.
4. Burning diesel or vegetable oil breaks the chemical bonds in the long chains of carbon atoms, and new bonds form with oxygen, which releases energy.

WRITE WHAT YOU THINK
SYNTHESIZE, p. 177
Answers will vary.

VOCABULARY SKILL
Activity A., p. 177
1. incinerate/ incineration / incinerator
2. present / presentation / presenter
3. fertilize / fertilization / fertilizer
4. invest / investment / investor
5. invent / invention / inventor

Activity B., p. 178
1. regulations
2. retailers
3. manufacturers
4. incinerators
5. elimination
6. purity
7. environmentalists
8. investors
9. investments
10. corporations

WRITING SKILL
Activity A., p. 180
Answers will vary. Possible answers:
1. Repair culture stands counter to the mainstream, throwaway attitude, despite recent attempts by people like Repair PDX volunteers.
2. The island of Pulau Semakau will be viewed by ecotourists on uniquely planned guided visits in the future.
3. The U.S. Environmental Protection Agency reports that 4.4 pounds of garbage per day are thrown away by the typical American, compared to 2.68 pounds in 1960.

Activity B., p. 180
Answers will vary. Possible answers:
1. According to Bland, Singapore dumps the garbage from its 4.4 million citizens on an artificial island. In the near future, this island could become one of Singapore's main tourist spots.
2. Because of a lack of space, more than 90 percent of Singapore's trash is incinerated. To reduce carbon emissions in the future, more of Singapore's trash will have to be recycled, Bland reports.
3. Last month, Steve Vegdahl brought a slice of bread and his broken toaster to the repair cafe in Portland. His toaster was

functioning again, and the room smelled like toasted wheat when he left.

4. Jacobson thinks that the idea of repairing instead of replacing will develop, even though it has been seen as a defiant activity over the last few decades. Repair PDX has given many objects, such as coffee grinders, speakers, lawnmowers, and furniture, a second chance.

Activity C., pp. 181–183
Quote 1: Paragraph 2: "This is no ordinary landfill: the island doubles as a biodiversity hotspot, of all things, attracting rare species of plants and animals."
The words were replaced with synonyms.
Quote 2: Paragraph 11: "The resource constraints that Singapore faces today will be those the rest of the world will face eventually."
The words were replaced with synonyms.
Quote 3: Paragraph 6: "When Singapore began burning garbage, its carbon emissions into the atmosphere rose sharply . . ."
The words were replaced with synonyms.

Activity D., p. 183
Answers will vary. Possible answers:
1. TerraCycle has recycled Capri Sun drink pouches into pencil cases, used computer parts into picture frames, and cookie packages into kites.
2. Because inventive recycling has added to TerraCycle's yearly income doubling, Tom Szaky has made money since 2004.
3. Rather than making the recycled tote bags at TerraCycle, the company head decided to make them with a nearby producer that charged him $20 a bag.

Activity E., p. 184
Answers will vary.

GRAMMAR
Activity A., p. 185
1. Absolutely
2. Less
3. Absolutely
4. Very
5. Very
6. Somewhat
7. Absolutely
8. Less

Activity B., p. 186
Answers will vary. Possible answers:
1. This idea might not be successful. People may not want to wear somebody else's old toothbrush around their wrists.
2. Umbrellas made out of recycled newspapers won't be popular. They won't be effective in the rain.
3. This idea may be successful. Financial rewards may encourage people to recycle.
4. Using coffee grounds for fertilizer might be a good idea. It shouldn't be too expensive.
5. This idea won't work. There won't be enough used cooking oil to fuel many cars.

Activity C., p. 186
Answers will vary. Sample answers:
1. A new landfill might be built on a farm outside of the city.
2. The city will have to increase taxes to pay for a new landfill.
3. The city may have to send its garbage to another city that has a landfill with room.
4. The city might not collect recyclable garbage from people.
5. Citizens could have to pay higher fees for waste disposal.

The Q Classroom
Activity A., p. 191
Answers will vary. Sample answers:
1. One of the most important discoveries of the last 200 years could be the discovery of insulin. It helps control sugar in the blood of people with the disease called *diabetes*.
2. The discovery of insulin saved many lives. People with diabetes could now eat a more regular diet, have a job, and do the things other people could do.
3. I see electric light bulbs, whose invention allowed people to have cheaper and safer sources of light; balloons, which could be used for decoration but also for transportation; glass, which could be used for window panes, drinking glasses, eyeglasses; plastic, which was a safer and cheaper substitute for glass and a variety of other materials; a robot, which can do tasks that would be dangerous for humans.

Activity B., p. 191
1. Yuna thinks that new discoveries and inventions make people's lives easier. Felix thinks that new discoveries and inventions can also make people's lives safer. Marcus also thinks that some new discoveries and inventions can change the world a lot and make people's lives better. Sophy thinks that some discoveries and inventions might have negative effects. Felix ends the discussion with the opinion that new discoveries and inventions are sometimes good and sometimes bad.
2. Answers will vary. Students should contribute their own opinions.

READING 1
PREVIEW THE READING
Activity A., p. 192
Answers will vary. Possible answers: People moved from the country to the city to work in factories. Railways were built and transportation became easier. Britain became an industrial power.

Activity B., p. 192
Answers will vary.

Activity C., p. 192
Answers will vary.

WORK WITH THE READING
Activity B., pp. 195–196
1. sequence
2. transition
3. sector
4. fundamental
5. provision
6. encompassed
7. breakthrough/innovation
8. In particular
9. stimulus
10. textiles
11. innovation/breakthrough
12. impact

Activity C., p. 196
Paragraph 1: d
Paragraph 3: a
Paragraph 4: g
Paragraph 5: c
Paragraph 6: h

Paragraph 9: f
Paragraph 10: b
Paragraph 11: e

Activity D., p. 197
Answers will vary. Possible answer: The first industrial revolution was a period of economic growth in Great Britain that changed society and involved new sources of energy, innovative ways of making things, increased urbanization, and more efficient forms of transportation.

Activity E., pp. 197–198
1. Paragraph 2: Coal, iron, cotton, steam, railways
2. Paragraph 3: Humans, animals, wood, wind, and water
3. Paragraph 5: Pig iron, glass, brick, steel
4. Paragraph 6: It increased the amount of power available in concentrated form to levels much higher than were possible before the Industrial Revolution.
5. Paragraph 7: They could provide food and raw materials to industrialized countries, and then buy industrial products from these countries.
6. Paragraph 8: They centralized production with iron machines and steam power. They had huge inputs and outputs. They had a big impact on the manufacturing sector.
7. Paragraph 9: increased urbanization, changes in people's jobs, decrease in the importance of agriculture, increase in the importance of industry
8. Paragraph 10: There were problems in energy supplies and textile production that needed to be solved. Scientists, engineers, artisans, and entrepreneurs could interact with each other to find solutions.
9. Paragraph 11: The desire to do better than Indian textile producers
10. Paragraph 11: All of the raw cotton had to be imported to Britain, and half of the textiles were then exported. Slaves, who were originally from Africa, produced the cotton in the United States.

Activity F., p. 198
Answers will vary.

WRITE WHAT YOU THINK
Activity A., p. 198
Answers will vary. Sample answers:
1. I think the most important invention during the first Industrial Revolution was the steam engine. The steam engine powered locomotives and greatly improved transportation.
2. I think there were both positive and negative aspects to the Industrial Revolution. On the one hand, transportation and manufacturing improved, and people were able to travel more easily and buy things that they needed. On the other hand, many people moved to big cities to work in factories. Fewer people lived in the countryside and agricultural life declined.
3. Things are still made in large factories, such as textiles and machinery. Most people also still live in large cities. Finally, in countries like the UK, people still travel by train along the same routes created during the Industrial Revolution.

READING SKILL
Activity A., p. 200
Answers will vary. Possible answers:

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1. I (The sentence is neutral, including factual information, and no opinion.)
2. I, P (In addition to stating some facts, the author seems to be of the opinion that their contribution could only be minor because of the limitations of their time.)
3. I, P (In addition to providing the factual information, the author considers that the British output of pig iron the most important example, which is an opinion.)
4. I, P (The author is of the opinion that the changes were fundamental and that they affected the organization of production.)
5. I, P (The author is of the opinion that industrialization would have been impossible without the technological breakthroughs.)
6. I, P (The author provides factual information about some countries, and he is under the impression that some of them seem to be taking off, which might not be a fact.)

Activity B., p. 200
Answers will vary. Possible answers:
1. I think the author wrote this encyclopedia entry to inform people about what happened during the first Industrial Revolution.
2. The encyclopedia entry provides a lot of factual information about the Industrial Revolution, with many examples such as the increased use of fossil fuels, changes in the way goods were produced and transported, and improvements in textile production.
3. Since I know the author's intent is to inform, I am better able to concentrate on the facts and learn them.

READING 2
PREVIEW THE READING
Activity A., p. 201
Answers may vary. Possible answers: To help people see (e.g., eye glasses). To hold drinks (e.g., bottles and glasses). To protect from wind and rain (e.g., windows).

Activity B., p. 201
Answers will vary.

Activity C., p. 201
Answers will vary.

WORK WITH THE READING
Activity B., pp. 204–205
 1. b
 2. a
 3. d
 4. c
 5. f
 6. h
 7. g
 8. e
 9. j
10. l
11. i
12. k

Activity C., p. 205
Answers will vary. Possible answers:
1. Glass has a large influence on the world, and it is the most important material in the history of humanity. It has helped people's lives and the general progress of humanity. Paragraphs 1, 15

2. Some scientists think it is a solid, but others think it is a liquid. There are many unanswered questions about glass. Paragraph 1
3. Researchers want to use glass in future breakthroughs such as binding up nuclear waste, making safer batteries, crafting biomedical implants, developing new touch screens, creating self-tinting windows, and producing unbreakable glass. Paragraph 14

Activity D., p. 206
a. 3; 1st/2nd century
b. 8; 1670s
c. 4; end of the thirteenth century
d. 10; after 1936
e. 5; 1425
f. 2; 1st century BCE
g. 6; around 1590
h. 1; 4,000 years ago
i. 7; 1609
j. 9; 1851

Activity E., p. 206
1. T
2. F: The Roman emperor Tiberius cut off the head of a craftsperson who said he was the only person who could make unbreakable glass.
3. F: Clear glass windows were first made by the ancient Romans.
4. F: The Crystal Palace, which was built in London in the middle of the nineteenth century, had four times more glass than the United Nations headquarters in New York City.
5. T
6. F: Venetians created the first mirrors made out of manufactured glass.
7. T
8. T

Activity F., p. 207
1. f
2. a
3. g
4. e
5. c
6. b

Activity G., p. 207
Answers will vary. Possible answers:
1. Glass is very useful, and it can be found in a wide variety of things, such as eyeglasses, lightbulbs, and windows. These things would be much more difficult to make without glass.
2. They probably didn't want any competition, and they didn't want other craftspeople to copy their recipes and make the same products.
3. The author might think that unbreakable glass could have decreased the demand for regular glass, put a lot of people who made regular glass out of work, and, if the recipe to make it fell in the hands of Rome's competitors, it would cause the Romans to lose business.
4. At the time, people didn't really understand the science behind the color changes, and they didn't realize that the cup contained silver and gold nanoparticles.
5. They kept their secrets about how to make glass very well, and if people told anyone about the process, they could be executed. Glassmakers could also be executed if they left Venice. Thus, people in other cities couldn't find out how

to make the same kind of glass, and Venice dominated the market.

6. Antony van Leeuwenhoek probably saw the microorganisms through the device he created that could magnify images up to 270 times when he was counting threads in his dry-goods store.

WORK WITH THE VIDEO
Activity A., p. 208
Answers will vary.

Activity B., p. 208
1. Probably not much because there were no street lights, indoor lights, or flashlights.
2. The sun and the stars.
3. Fires, candles, oil lamps, light bulbs.
4. People can see at night as easily as during the day; can play soccer, drive cars, and do homework at night; and don't have to limit their activities to daytime.

Activity C., p. 208
Answers will vary. Possible answer:
The invention of the electric light bulb has a big impact on people's lives. In the video, it mentions that people do not have to limit their activities to the daytime. Because of electric light, people can be more productive. For example, they can do their homework at night, clean the house, and go shopping. People can also have more entertainment options because of the electric light bulb. For example, they can read a book or magazine, or draw a picture.

WRITE WHAT YOU THINK
SYNTHESIZE, p. 209
Answers will vary.

VOCABULARY SKILL
Activity A., p. 210
1. exacerbated
2. executed
3. transformed
4. substance
5. device
6. manufacturing

Activity B., p. 210
1. innovations
2. fundamental
3. provision
4. conceal
5. Prior to
6. facilitated

Activity C., p. 210
Answers will vary.

WRITING SKILL
Activity B., pp. 214–215
Answers will vary. Possible answers:
1. This summary is not effective because it contains too many unnecessary details.
2. This summary is effective because it includes an introduction and a conclusion, and provides the main ideas in the article without including too many details.
3. This summary is not effective because it includes too many personal opinions. The summary also contains assumptions that are not based on the original article.

4. Number 2 is the best because it includes all the essential features of a good summary and does not include unnecessary details, personal views, or ideas that cannot be inferred from the source.

Activity C., pp. 215–217
Answers will vary. Possible answers:
1. The article showed how good design and a machine to make cartons solved the problem of cracked eggs.
2. The summary is effective. It provides the title and source of the article, the author, and the main ideas. It doesn't include the essay writer's opinions or too many details.
3. The first main idea the writer responds to is that cracked and broken eggs were a problem before the invention of the egg carton.
4. The essay writer speculates about some negative effects and consequences of the problem, and why it needed a solution.
5. The second main idea that the writer responds to is that Coyle solved the problem of broken eggs with his invention of the egg carton.
6. The essay writer explains what made the design of Coyle's invention so effective.
7. The third main idea the writer responds to is about the creation of a machine that made the production of egg cartons simpler and cheaper.
8. The essay writer recognizes how the improvement of the manufacturing process was also key to make the invention beneficial to more people.

GRAMMAR
Activity A., p. 219
1. Many people **use**; most of these inventions **improve**
2. Innovation **is**; an inventor's skills **include**
3. Inventors **create**; patients **have**
4. How often people use Canadian inventions **becomes**
5. Not every new invention **changes**
6. Recommendations **were made**

Activity B., p. 219
The article by *Global News*, "Here's a Look at Famous Inventions Made by Canadians," ~~reveal~~ **reveals** that Canadians ~~is~~ **are** innovators who create things that ~~changes~~ **change** the world both socially and economically. One major Canadian invention ~~are~~ **is** the smartphone. It began with the development of the Blackberry, and it changed how people communicate with each other. Another invention was the foghorn, which ~~protect~~ **protects** ships during fog. A third famous Canadian invention ~~are~~ **is** the snowmobile, which ~~enable~~ **enables** people to travel across deep snow. What these examples show ~~are~~ **is** that Canada ~~produce~~ **produces** more inventions than the world might expect. Canada's institutions, culture, and safety ~~contributes~~ **contribute** to an innovative environment. In addition, curiosity among Canadians ~~encourage~~ **encourages** innovation, and ~~lead~~ **leads** to improving people's lives.

The Q Classroom
Activity A., p. 225
Answers will vary. Sample answers:
1. I usually have the most energy in the morning after a good night's sleep. I probably have the least amount of energy right after I eat dinner in the evening.
2. I feel energized after doing some exercise. For example, if I go jogging on a cool fall day, I feel great afterwards. However, if I eat a huge meal or have too many snacks, that takes my energy away and makes me sleepy.
3. They seem to be hiking or climbing a mountain. Not all of them seem to have the same level of energy. The second man seems to have slightly more energy than the other three, as he is not bending or looking down as if tired.

Activity B., p. 225
1. Sophy says doing something she likes can increase her energy level, and doing something she doesn't like much reduces it. Marcus thinks physical activity increases his energy level. Yuna agrees with Sophy and Marcus, and also thinks showering in the morning increases her energy level. Felix thinks sleep is important for energy.
Some of them agree that they are affected by the same things.
2. Felix thinks people don't get enough sleep because they are working too hard and there are too many distractions.
Answers will vary. Possible reasons: People are too stressed to sleep. People spend too much time using electronic devices. People don't eat balanced diets, and this impacts their sleeping habits.

READING 1
PREVIEW THE READING
Activity A., p. 226
Answers will vary.

Activity B., p. 226
Answers will vary.

Activity C., p. 226
Answers will vary.

WORK WITH THE READING
Activity B., p. 230
1. sluggish
2. conducive
3. alleviate
4. derived from
5. meditation
6. hydrated
7. fatigue
8. immune system
9. chronic
10. resilience
11. depletion
12. calories

Activity C., p. 231
1. d
2. b
3. a
4. c

Activity D., pp. 231–232
1. We need to eat a balanced number of calories to feel fresh and ready for action. Para 2

2. When we feel tired, we should eat foods with a low glycemic index so that the sugar content is broken down slowly by our bodies. Para 3
3. People who drink coffee on a regular basis build up a tolerance to caffeine, and they might not be affected by it. Para 4
4. If you want to feel energized by physical activity, you don't have to run for miles or work out to the point of exhaustion. Para 7
5. Doing yoga for 25 minutes is better than reading for 25 minutes if you want to improve your mood, energy level, and ability to think clearly. Para 9
6. People who pay for services to do the chores they don't like have a greater sense of overall well-being compared to people who do their own chores. Para 11
7. The amount of sleep people need depends on age and other factors. Para 12
8. Using a bright screen just before bed interferes with your natural clock and creates a state of alertness. Para 13

Activity E., p. 232
Answers will vary. Possible answers:
Pay attention to diet
1. If we don't eat enough calories, we may feel tired and not have enough fuel.
2. If we eat too many calories, we may feel sluggish because of system overload.
3. Hydration is important because fatigue can be a symptom of dehydration.
4. Drinking coffee can improve concentration and make people more alert and receptive.
Do some light exercise
1. In your muscles, exercise produces more energy-producing units.
2. Exercise improves your body's ability to carry oxygen and boosts circulation.
3. Moderate amounts of stress hormones make you feel energized and alert.
Put time aside for yoga and meditation
1. Yoga and meditation boost energy levels because they focus on techniques that promote a state of calm.
2. If you feel tired because of stress, doing yoga or meditation can help you become more resistant to stressors.
3. For people with high-intensity jobs, yoga can improve the ability to deal with stress, reduce anxiety, and improve depression.
Learn to delegate tasks
1. If people can't deal with their responsibilities, they might burn out and feel tired all the time.
2. Elizabeth Dunn said that people should think about buying their way out of things they don't want to do.
Don't underestimate sleep
1. It is key that people get enough sleep to prevent fatigue and recover from tiring or stressful days.
2. Disrupted sleep can cause neurodegeneration, mental health problems, and increased likelihood to worry.
3. Healthful habits can help you cope with stress and avoid energy depletion.

Activity F., pp. 233–234
Answers will vary. Possible answers:
1. Sample response: Sofia is probably feeling sluggish because she is consuming too many calories at lunch. She should ask her mother to make her a smaller lunch. Supporting quote

from Reading 1: "…if we get too many calories, there's a system overload, and we may end up feeling sluggish."

2. Sample response: Antwan should have a snack with a low glycemic index to provide him with a source of energy that is broken down more slowly by the body. For example, he could snack on some nuts, fruit, or high fiber vegetables. Supporting quote from Reading 1: "… energy derived from these foods is released gradually, helping to keep us alert for longer."

3. Sample response: Michael could try yoga because it can reduce anxiety and improve depression for people with high-intensity jobs. Supporting quote from Reading 1: "… this practice can improve resilience to stress in people working in fairly high-intensity domains, as well as reduce anxiety…"

4. Sample response: The bright screen of Pei Chen's phone is probably interfering with her natural body clock. She shouldn't check her messages right before she falls asleep. Supporting quote from Reading 1: "They also advise avoiding exposure to bright screens… just before bed, as this interferes with your natural body clock…"

WRITE WHAT YOU THINK
Activity A., B., p. 234
Answers will vary. Sample answers:

1. People nowadays lead very busy lives. As a result, it might be hard for them to fit in all of these suggestions for increasing energy levels. However, if people try these suggestions, they might find that they are quite helpful.

2. I have enough energy, but I feel tired in the mornings. Eating a healthy breakfast would give me more energy. For breakfast, I should choose foods with a low glycemic index.

3. I think busy people suffer from stress in their daily lives because we are all trying to do too much in one day. This stress can lead to burnout and make us feel tired all the time. For the most part, I think a high level of stress is not good for people's health.

READING SKILL
Activity A., p. 236
a. 1, 2, 3
b. 4, 5
c. 6
d. 7, 8

Activity B., p. 236
1. eat too many calories
2. fatigue
3. improve concentration and make brain alert and receptive
4. increased pulse
5. exercise
6. state of calm
7. better mood, energy level, and executive function
8. fail to find strategy to redistribute responsibilities
9. refreshed feeling
10. bright screens before bed

Activity C., p. 236
Answers will vary. Possible answers:
Food and drink impact energy levels. Text to self: I drink a cup of coffee every morning, and I don't think I would be fully awake without it. Text to text: I read an article on the Internet about the Keto Diet. People avoid carbohydrates, and it is supposed to help them lose weight and have more energy. Text to world: Nowadays, it is hard for people to have a healthy

diet. There are so many fast-food restaurants, and it is more convenient to buy lunch there than make it at home.
Physical activity affects energy levels. Text to self: When I walk home from work, I feel energized for the rest of the evening. Text to text: I read an article that said people need to have at least 30 minutes of exercise three times a week in order to maintain their health and vitality. Text to world: Many people have busy schedules, and it is hard to fit in exercise. It seems like a lot of people complain about being tired all the time, and the lack of exercise might be a cause.
Help with tasks and responsibilities influences energy levels. Text to self: If I have too many things to do, such as house chores and homework, I can start to feel really stressed out and I have trouble sleeping. Text to text: I read an article about using a calendar to get more organized. According to the article, having a schedule planned out in advance can reduce stress. Text to world: In general, people's schedules are too busy. It seems like it is expected that people should always be doing something. However, this can lead to burnout and fatigue.
Adequate sleep has a relationship with energy levels. Text to self: I love the weekends because I can get at least eight hours of sleep. I wake up on Saturday mornings feeling great. Text to text: I read in another article as well that using a smartphone before bed can lead to sleep problems. The article talked about the blue light from the screen of the smartphone and how it disrupts sleep patterns. Text to world: People seem to be addicted to their devices, such as smart phones and tablets. In the past, I think people would read a book before bed, but now everyone is looking at a screen. I'm worried this will negatively affect people's health.

READING 2
PREVIEW THE READING
Activity A., p. 237
Answers will vary.

Activity B., p. 237
Answers will vary.

Activity C., p. 237
Answers will vary.

WORK WITH THE READING
Activity B., pp. 240–241
1. There are a number of
2. deficiency
3. sedentary
4. fortified
5. inflammation
6. hibernate
7. nutrients
8. It is possible to
9. rampant
10. dreary
11. supplement
12. optimal

Activity C., p. 241
1. F; People have less energy when their bodies produce more melatonin during the winter.
2. F; People who live in northern latitudes typically have lower levels of vitamin D during the winter months.
3. T
4. F; Your skin can produce vitamin D on a cloudy day; it just produces less.

5. T
6. T

Activity D., p. 242
a. 6
b. 3
c. 2
d. 4
e. 7
f. 5

Activity E., p. 242
Answers will vary. Possible answers:
1. No vitamin D through windows; Have to go outside; Can get vitamin D on a cloudy day
2. Diet: eggs, fish, cereals, milk; vitamin D3 supplement
3. Exercise; diet; light therapy lamps

Activity F., p. 242
1. 15 hours, 10 minutes, and 21 seconds.
2. 9 hours, 10 minutes, and 11 seconds.
3. 600 IU
4. 1,000 to 2,000 IU
5. 20 minutes three days a week for six weeks
6. Under $100

Activity G., p. 243
Answers will vary. Possible answers:
1. They have less energy because of winter-related fatigue due to less sunlight.
2. There is more daylight in Edmonton on the summer solstice, and there is less daylight in Edmonton on the winter solstice, compared to Cleveland, Ohio.
3. Athletes are more active and they use their muscles more. As a result, they need more vitamin D to decrease fatigue and help them recover from exercise.
4. The window probably filters out the components of sunlight that help the skin make vitamin D.
5. Few foods contain significant amounts of vitamin D, so companies fortify their products to increase the amount of vitamin D available from food.
6. The body craves nutrients during the winter, and eating a wide variety of fruits and vegetables helps people get those nutrients.

WORK WITH THE VIDEO
Activity B., p. 244
1. glucose
2. fructose
3. sucrose
4. carbohydrates
5. cellulose
6. starch
7. They are broken down back into glucose by enzymes in our saliva and small intestine.
8. Starch should form most of the carbohydrate in our diet because the slower release of glucose helps maintain more constant blood sugar levels.

Activity C., p. 244
Answers will vary. Possible answer: Carbohydrates are a good source of energy, but complex carbohydrates are a better source of energy because the slower release of energy provides more constant blood sugar levels, rather than the immediate energy release of small sugars like glucose.

WRITE WHAT YOU THINK
SYNTHESIZE, p. 244
Answers will vary.

VOCABULARY SKILL
Activity A., p. 246
1. for
2. by
3. in
4. about
5. to
6. with
Number 2 expresses a cause. Number 5 expresses an effect.

Activity B., p. 246
1. Feeling tired all the time results from not getting enough quality sleep.
2. A sense of fatigue can result from not drinking enough water throughout the day.
3. Poor time management may lead to burnout and feeling tired all the time.
4. Positive changes in brain chemistry can be caused by light therapy lamps or boxes.
5. Changes in the body's melatonin levels may be caused by a lack of daylight during winter.
6. Drinking a cup of coffee can result in feeling more awake and alert.

Activity C., p. 246
Answers will vary.

WRITING SKILL
Activity A., pp. 248–249
1. causal analysis essay
2. The reasons for this struggle to stay awake lie in student jobs and university classes.
3. One culprit for this lack of focus in class is the increasing number of students who are holding down part-time or even full-time jobs while they are in school.
4. cause: students have part-time and full-time jobs; effect: not being able to focus in class
5. Another explanation for why students are not focusing in class is that classes can often be boring affairs that students must endure.
6. cause: the classes are boring; effect: students aren't engaged
7. Schedules packed with work and study, along with classes that do not engage students' attention, lead to difficulties focusing in class.

Activity B., p. 249
Answers will vary. Possible answers:
1. students need a job
2. rising tuition fees
3. students must work long hours
4. students work long hours
5. students don't get enough sleep and can't focus
6. Cause: large classes; Effect: easy to hide
7. Cause: easy to hide; Effect: easy not to pay attention
8. Cause: professors can't engage students; Effect: classes are boring
9. Cause: professors are not good teachers; Effect: read their lecture notes out loud
10. Cause: professors read their lecture notes; Effect: boring classes

Activity C., p. 249
Answers will vary.

Activity D., pp. 250–251
1. Exercising
2. Walk around while studying
3. Stretch before bed
4. Comfortable mattress
5. Sleep schedule
6. Water
7. Green tea
8. Good hydration
9. Remember to smile
10. See the good in people
11. Positive attitude
12. Boost energy levels

GRAMMAR

Activity A., p. 252
1. ←
2. ←
3. →
4. →
5. →
6. ←
7. ←
8. →

Activity B., p. 253
Answers will vary. Possible answers:
1. She's not getting enough sleep. For this reason, she feels tired every day.
2. I feel energetic while I work because I drink coffee in the morning.
3. Some people eat too many processed and refined foods with a high glycemic index; therefore, they suffer from low energy levels and fatigue.
4. Due to the fact that there isn't much daylight during winter, people's bodies produce less melatonin and vitamin D.
5. Habitual coffee drinkers build up tolerance to caffeine; because of this, caffeine may not help people who drink a lot of coffee to concentrate.
6. He is overwhelmed by his responsibilities; as a consequence, he feels burned out and tired all the time.
7. Since Marta practices yoga and meditation regularly, she has a strong immune system.
8. Joe always sees problems as opportunities for learning, so he rarely feels depressed or frustrated.