Cutting Edge

This unit is about the latest developments in the field of technology.

In this unit, the students will learn new words and expressions, and review the Future Simple (*will*), *be going to*, adjectives, modals and semi-modals.

The chart below shows the global and operative can-do statements for Unit 3.

OBJECTIVE	CAN-DO STATEMENTS: OVERALL AND SPECIFIC	SECTION IN UNIT
Can read online flyers for two hi-tech summer camps	WRITTEN RECEPTION: Can understand texts on familiar matters of a concrete type in level-appropriate language (vocabulary and grammar), rereading as required	Reading 1 pages 76-77
	Reading for orientation Can find and understand information in practical, concrete, predictable texts (e.g., travel guidebooks, recipes, menus)	
Can read an online article about drones	WRITTEN RECEPTION: Can understand texts on familiar matters of a concrete type in level-appropriate language (vocabulary and grammar), rereading as required Reading for information and argument Can understand the main points in informational texts that deal with concrete everyday topics (e.g., hobbies, sports, leisure activities, animals)	Reading 2 pages 86-87
Can listen to a podcast reviewing a TV series		
Can interact on the topic of a real or imaginary event	articulation is clear SPOKEN INTERACTION: Can interact with reasonable ease in structured situations, short social exchanges and conversations using level-appropriate language (vocabulary and grammar), asking for repetition, reformulation or clarification when necessary Can ask and answer questions and exchange ideas and information on familiar topics and everyday situations Informal and formal discussions Can exchange opinions, agree / disagree with others, and compare objects / people	

Can collaborate to write	SPOKEN INTERACTION:	Vocabulary
a simple story	Can interact with reasonable ease in structured situations, short social exchanges and conversations using level-appropriate language (vocabulary and grammar), asking for repetition, reformulation or clarification when necessary	Practice pages 79 and 89
	Can ask and answer questions and exchange ideas and information on familiar topics and everyday situations	
	Informal and formal discussions	
	Can exchange opinions, agree / disagree with others, and compare objects / people	
Can discuss advantages	COLLABORATION:	Speak Your
and disadvantages of using technology in	Facilitating collaborative interaction with peers	Mind Let's Talk
class	Can collaborate in simple, practical tasks, asking what others think, taking in responses, making suggestions, asking for repetition, reformulation and / or clarification when necessary	page 94
Can prepare for a	SPOKEN PRODUCTION:	Speak Your
debate by introducing the topic and stating an opinion	Can describe everyday aspects of his/her environment, events and activities (e.g., people, places, a job or study experience) using level-appropriate language (vocabulary and grammar)	Mind Let's Debate pages 94-95
	Sustained monologue: Putting a case	
	Can express agreement or disagreement using simple formulaic expressions to explain why	
	Can present his / her opinion in a structured, coherent manner especially provided he / she can prepare in advance	
	COLLABORATION:	
	Facilitating collaborative interaction with peers	
	Can collaborate in simple, practical tasks, asking what others think, taking in responses, making suggestions, asking for repetition, reformulation and / or clarification when necessary	
Can write an essay	WRITTEN PRODUCTION:	Writing
describing an invention	Can give information in writing about matters of relevance linking a series of phrases and sentences with simple connectors like 'and', 'but' and 'because', with increasing accuracy of spelling based on a developmental continuum	page 93
	Creative writing	
	Can write basic descriptions of events, past activities and personal experiences	
At the end of the unit,	WRITTEN INTERACTION:	Task
the students will be able to:	Can give information in writing about matters of relevance linking a series of phrases and sentences with simple connectors like 'and',	page 99
1. collaborate to invent a device that could	'but' and 'because', with increasing accuracy of spelling based on a developmental continuum	
make the world a better place and present it to the class	Written reports and essays Can write simple texts on familiar subjects of interest, linking sentences	
2. present an invention that changed the	with appropriate connectors Creative writing	
world 3. use the Internet	Can write basic descriptions of events, past activities and personal experiences	
to find current information		

MEDIATION:

Can convey the main point(s) involved in short, simple conversations or texts on everyday subjects of immediate interest that are expressed clearly

Can relay in writing (in Language B) specific information contained in simple, informational texts (written in Language A)

COLLABORATION:

Facilitating collaborative interaction with peers

Can collaborate in simple, practical tasks, asking what others think, taking in responses, making suggestions, asking for repetition, reformulation and / or clarification when necessary

NEW WORDS

PART1

application (app)	construct	endless	internal	sale
as far as I know	convert	fiction	just	save
average (n)	curriculum	file	let us	savings
be in touch with	damage	frequently	make	single
billion	democracy	get rid of	nothing	target
binge-watch	destroy	growth	on offer	various
bomb	divide	handle	persuade	vehicle
broad	do (one's) best	hire	possibility	wallet
cast	economy	in general	program	whoever
client	effectively	information technology (IT)	raise	you know
complete	employment	inside (n)	read out	

PART 2

accurate	dot	lioness	sand	viral
again and again	drag and drop	military	software	volume
carry	drone	miss	tag (v)	window
code	drug	motor	technical	with the help of
compare	entirely	mouse	the air	wood
cut down	environmentally friendly	parcel	these days	zone
daily life	facility	pipe	try something out	
desktop	fine	position	type	
dolphin	legal	rate	update	

SPEAK YOUR MIND

certainty	plain	reality	there's no doubt
definite	properly	somewhat	would prefer

These words are reviewed at least three times in this unit of the Student's Book and Workbook.

They are also recycled at least three times in later units of the Student's Book and Workbook as well as numerous times in the Digital Extra components: Wordlist Plus and Vocabulary Booster.

Activities for the students to monitor and assess their own vocabulary acquisition:

- Track New Words (Student's Book, pages 83 and 95)
- **Review** (Student's Book, pages 96-97)
- Check Yourself (Workbook, pages 85-89)
- Read and Check (Student's Book, pages 98-99 and Workbook, pages 90-91)
- Digital Extra Components: Wordlist Plus and Vocabulary Booster

In this unit, the students will learn about hi-tech summer camps for teens, discuss a controversial subject about there no longer being a need for human teachers and write a description of an invention, using the new vocabulary, the Future Simple (*will*) and *be going to*, modals and semi-modals, and adjectives. At the end of the unit, they will be able to think of an invention that would improve the world or research an inventor and his or her invention and present their tasks to the class.

Pages 72-73

The opening spread introduces the theme of the unit – the latest technological developments. Tell the students to look at the title and the opening pages of the unit. Ask them what they think the title of the unit "Cutting Edge" means. Explain that it is an expression we use when we mean that something is modern and extremely up-to-date, with all the latest features. Ask them to give examples of when this term might be used. (It is often used to refer to technology, research, scientific experiments, design, etc. For example, This university is doing *cutting-edge* research in medicine.)

Share the objectives on the page with the students. Point out that they show what skills the students will learn and what they will be able to do as they progress through the unit.

This exercise introduces the students to the topic of technological changes. Ask the students to look at the old inventions on page 72. Tell them to work with a partner to match each one to a new invention on page 73 and discuss how each invention is different from the old one.

ANSWERS

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

The students look again at the older inventions and decide what the advantages and disadvantages were of each one. Encourage discussion.

Suggestion: Draw the chart below on the board. The students can copy it into their notebooks. Ask the students to come up to the board and add ideas. You can share some of the ideas below to get them started.

Invention	Advantages	Disadvantages
1. money – coins	 people think more before they spend it honors national heroes with the pictures on it 	 heavy to carry around gets dirty sometimes changes
2. telephone	 didn't get lost didn't have to recharge a battery 	not portable couldn't send messages or take pictures
3. audio equipment	 other people could hear the music could be used for public events like parties etc. 	was heavy to carry around the sound wasn't always clear
4. stove	 the food was healthier to eat without microwaves heated up the whole room in the winter 	cooking took longer timing wasn't accurate
5. letters	 it was fun to receive in the mail and people often collected the stamps it was more personal so people expressed their feelings and wrote more 	took a long time to arrive and had to go and mail it communication was less frequent

Tell the students to look at the latest inventions and discuss how technology has changed our lives and if any of the items might be improved in the future. Ask them to explain how.

Accept all logical answers.

Pages 74-75

PART 1 Technology for Teens

In this part, the students will read online flyers about two hi-tech summer camps. They will learn the vocabulary they need in order to understand the reading text and discuss it.

GET READY

This section presents the new words and introduces the students to the topic of the text they are about to read. The students practice recognition of all the new words alone and in context before reading the text to internalize their meanings.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 62 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

See Suggestions for Presentation and Practice of New Vocabulary in the Introduction to this Teacher's Guide.

- A This exercise introduces some of the new words the students will learn in Part 1.
 - 1 The students decide which of the new words they can use to talk about learning a new skill. The exercise can be done orally or the students can write their answers in their notebooks. Point out to the students that they may have different answers.

POSSIBLE ANSWERS

application, complete, curriculum, employment, growth, hire, information technology, target, various

Suggestion: Point out the sound /th/ in the words *growth*, *nothing* and *be in touch with*. Tell the students that many learners of English have a hard time pronouncing the *th* sound. The sound in these words is made by putting the tongue just below or behind the teeth. Ask the students to think of other words that have this sound such as: *thank*, *Thursday*, *think*, etc.

2 In this exercise, the students complete sentences that contain the target words by choosing the correct answers.

ANSWERS

1. a 2. b 3. b 4. a 5. b 6. a 7. b 8. a

3 In this recognition exercise, the students match the beginnings of the sentences in A to the endings in B.

ANSWERS

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

4 In this activity, the students complete the sentences to show that they understand the meaning of the new words.

Accept all logical and grammatically correct answers.

5 In this exercise, the students complete the email with the new words given. Remind the students to make any necessary changes to the words, for example, adding s to make it plural or making sure that the subject agrees with the verb. They focus on the content by answering the question.

ANSWERS

1. persuade 4. app 5. hiring 2. am in touch with 6. complete 3. information technology

Jenny might want to get Arnold's telephone number and find out the name of the company.

These exercises introduce more new words in the context of a listening passage.

1 Ask the students which words are connected to inventions.

POSSIBLE ANSWERS

construct, economy, effectively, possibility, program

2 In this recognition exercise, the students show that they understand the meanings of the new words by choosing the correct word to replace the words in bold in each sentence.

ANSWERS

1. construct 4. program 2. vehicle 5. handle

3. broad

3 In this exercise, the students complete sentences with the words given to show that they understand their meanings.

ANSWERS

4. endless 1. just 2. effectively 5. In general 6. possibility 3. economy

4 In this activity the new words are presented in a different context. Tell the students to look at the picture of the Unmanned Undersea Vehicle (UUV) and ask them what they think it does. Then tell them to listen to the guide at the museum to check their answer.

LISTENING SCRIPT

... and now I'd like to show you something very interesting. Finding out what is at the bottom of the sea has always been a huge challenge for man. Even when scientists first constructed a vehicle that could take a person to the bottom of the ocean, not everyone was able to handle the difficult and sometimes dangerous conditions in these small vehicles. When robotic vehicles were invented, this changed everything. We were able to go to the bottom of the ocean without endangering a person's life. Today, these Unmanned Undersea Vehicles (UUVs) can be effectively used for a broad range of tasks, including collecting valuable scientific information about the bottom of our seas and oceans. Thanks to the progress that has been made, there are now endless possibilities regarding their uses. In general, there are many different scientific programs that use UUVs, and in just a few years, researchers will be using UUVs for many different purposes. My own feeling is that what they find under the sea could have a very positive effect on our economy.

ANSWER

UUVs collect valuable scientific information about the bottom of the oceans.

WORKBOOK, page 63 Refer the students to the Workbook, page 63 for practice of the new words.

READING 1 Summer Camps for Teens

In this section, the students read online flyers to find specific information about two hi-tech summer camps.

Point out that the purpose of flyers is to give information clearly and concisely. Explain how the text is organized. Point out or elicit that the subheading can help them find information. Have the students read the online flyers. Ask the students which flyer gives detailed information about what the students will learn.

ANSWER

The first flyer gives more detailed information about what the students will learn.

Following the Text

The students answer general questions about the text to help them gain an overall perspective of the whole text and how it is organized.

ANSWERS

- 1. The purpose of both flyers is to advertise the camps and attract people to register for them.
- 2. 1. Stem Summer Camp
 - 2. Cyber Security Camp
 - 3. Stem Summer Camp
 - 4. Cyber Security Camp, Stem Summer Camp

You may wish to share the following background information with the class.

STEM summer camps and courses have been operating for nearly ten years and teach hard skills for future careers in science, technology, engineering and math in a fun way. Participants learn life skills like problem-solving, creativity and collaboration.

Pages 78-79

The students answer questions about the text in order to demonstrate their comprehension.

ANSWERS

- 1. d
- 2 a. to complete an assignment successfully
 - b. One of the following: be able to identify hackers and stop them from operating / operate a drone to collect information / construct an underwater vehicle / read a coded message at the bottom of a swimming pool
- 3. Two of the following: working with AI and robotic programs / game design / voice apps and video production / working with 3D printers
- 4. hope to find employment in a computing or engineering company The new word is *employment*.
- 5. they both went to the camp / they were once students at the camp
- 6. They both learned so much (at the camp).
- 7. Accept all logical and grammatically correct answers.
- In this exercise, the students give a personal response to the reading text. Tell them to write about how dangerous they think hackers are to our society and to give reasons for their answers.

Accept all logical and grammatically correct answers.

Suggestion: Have the students share their responses with the class to encourage them to express their opinions.

Suggestion: In order to offer the students a more detailed examination of the lexical item, focusing on depth of knowledge, point out that the word endless has the suffix -less which means without. Explain that a suffix is a letter or a group of letters that are added to the end of a word and they often have a particular meaning that can help us understand the meaning of the word.

Ask the students what other suffixes they know. For example: -ful means the state of something (painful, stressful); -able / -ible means capable of being something (edible, lovable); -en means become (ensure, enlighten).

Ask the students to find more words with these suffixes. They can find the information online. (lifeless, *lawless*, *thankful*, *cheerful*, *usable*, *adorable*, *awaken*, *strengthen*)

VOCABULARY PRACTICE

In this section, the students practice both recognition and production of the new words in a variety of contexts.

In this exercise, the students choose the correct answer to demonstrate their understanding of the words.

ANSWERS

1 curriculum 5. construct 2. hiring 6. target 3. possibility 7. In general 4. damage 8. employment

In this exercise, the students give examples of items in phrases that contain the new words.

Accept all logical answers.

In this exercise, the students complete the graphic organizers in their notebooks with the words given. Tell them that some words may be associated with both categories.

POSSIBLE ANSWERS

Technology: application, construct, information technology, program, target, vehicle Course of study: broad, complete, curriculum, economy

Suggestion: Have the students work in pairs to discuss in which category they would put the words.

The purpose of this collaborative activity is to give the students the opportunity to work with others to make up a story using at least eight of the new words. Tell them to prepare their story together, then present it to the class. Point out the beginning of the story that can be used as an example.

Suggestion for less-advanced students: Tell the students to use the beginning of the story and continue the story themselves, using another seven new words.

WORKBOOK page 65 Refer the students to the Workbook, page 65 for additional vocabulary exercises.

WORD POWER

This feature explores vocabulary depth, presenting a group of words from Band II that demonstrates a common linguistic feature. Here the Word Power focuses on words connected to the economy and money.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 66 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

Read the explanation with the class. Have the students do the exercises to demonstrate understanding of the new words.

In this exercise, the students match the beginnings of the sentences in A with the endings in B, paying attention to the new words.

ANSWERS

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

Suggestion for more-advanced students: Have the students work in pairs to write a short paragraph using five of the new words.

In this exercise, the students choose the correct answer to show that they understand the meaning of the new words.

ANSWERS

1. buys 3. the bank

2. cheaper 4. driver's license

WORKBOOK page 67 Refer the students to the Workbook, page 67 for more practice of the new words.

Pages 80-81

GRAMMAR Review – Future Simple (*will*), *be going to*

This grammar reviews the Future Simple (will) and be going to.

Read the explanation about the grammar point with the class and ask the students the questions that appear in order to check their understanding of meaning and form.

ANSWERS

- 1. Sentence a shows intention and sentence b shows prediction.
- 2. be changes (am, is or are depending on the subject of the verb)

Refer the students to the Grammar Appendix on pages 233-234 for additional information and examples.

In this exercise, the students practice using the correct form of the Future Simple. Tell them to use the positive or negative Future Simple form of the words in brackets depending on their opinions and then to complete the sentences.

ANSWERS

(depending on their opinion)

1. will / won't live 4. will / won't stop 2. will / won't be 5. will / won't change 3. will / won't sound 6. will / won't study

Accept all logical and grammatically correct opinions.

In this exercise, the students use the correct form of be going to and the verbs in brackets in order to complete the webpage.

ANSWERS

1. is going to work 5. is going to take

2. are going to make 6. aren't going to make it 3. aren't going to invent 7. are going to reach 4. aren't going to succeed 8. are going to amaze

Refer the students to the Workbook, page 68 for more practice of the Future Simple.

Review – Adjectives: Comparative and Superlative

In this section, the students review the Comparative and Superlative forms of adjectives. Read the explanation about the grammar point with the class and have the students answer the questions.

- 1. We add the suffixes -er and -est to the adjective when the word is only one syllable for example: big, bigger, biggest. We also use these suffixes if the adjective ends in y and is two syllables. For example: happy, happier, happiest.
- 2. We add the words more ... than and the most when the adjectives are two syllables or more. For example: beautiful, more beautiful than, the most beautiful.

Refer the students to the Grammar Appendix on page 235 for additional information and examples.

In this exercise, the students complete the sentences with the correct comparative or superlative form of the adjectives.

ANSWERS

- 1. faster than 4. slower than 2. the most exciting 5. the strongest
- 3. more challenging than
- In this interactive exercise, the students use the future tenses and adjectives in a discussion with a partner. Tell them to look at the picture and discuss what changes they think will take place in the future, using the future tenses and comparative and superlative adjectives. Point out the speech bubbles that can be used as examples.

WORKBOOK page 70 Refer the students to the Workbook, page 70 for additional review of Adjectives.

Pages 82-83

LISTENING AND SPEAKING Designated Survivor

This section integrates the skills of spoken reception and spoken interaction and production. The students first listen to and follow a podcast that reviews a TV series and then discuss the topic.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 71 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

- This pre-listening activity introduces the new words that appear in the podcast that the students are going to hear.
 - 1 Before they listen, read out the words so that the students hear how they are pronounced. Ask the students which words are used to talk about making or watching a movie or TV series.

POSSIBLE ANSWERS

binge-watch, cast, do one's best, fiction, make, read out

See Suggestions for Presentation and Practice of New Vocabulary in the Introduction to this Teacher's Guide.

2 This exercise practices comprehension of the meanings of the new words. The students choose new words that have similar meanings to the clues given.

ANSWERS

democracy
 get rid of
 bomb
 cast

3. single 7. binge-watch

4. fiction 8. file

3 In this exercise, the students complete sentences with the new words given. Point out that there is one extra word.

ANSWERS

read out
 you know
 internal
 destroyed

4 In this exercise, the students answer questions to show that they understand the meanings of the new words.

Accept all logical and grammatically correct answers.

The students listen to the podcast about a TV series. They will hear the recording twice. The first time, they need to listen for the main idea and answer the question.

See Teaching Suggestions for Listening in the Introduction to this Teacher's Guide

LISTENING SCRIPT

Good evening, listeners. It's a cold, wet evening out there and apparently it's going to stay like that over the weekend. So why not stay at home, and just binge-watch a good TV series? I recommend a series called *Designated Survivor*. The cast is excellent, with Kiefer Sutherland in the lead role, and Maggie Q as a brilliant FBI detective.

I won't give you too many spoilers, but here's how it starts. The President of the USA and all of the country's politicians are killed in a terror attack during an important speech to the nation. During this speech, government Minister Tom Kirkman was put in a safe place that even a nuclear bomb couldn't destroy. It was to be his job to immediately take the place of the President if something like that happened. In other words, he was the Designated Survivor. And of course, that's what happens. As the President was reading out his speech to the nation, the whole building was destroyed and Tom Kirkman suddenly becomes President of the USA. Sadly, things don't start well for Kirkman. He does his best to catch whoever carried out the crime and he also wants to make changes that will help the country. But, no one seems to want to help him and he doesn't really understand the internal politics involved. The terrorists who are responsible for the crime are computer experts and hackers and it gets increasingly difficult to find them or their files. It also becomes clear that they want to get rid of him and in addition, American democracy is in danger. There are unusual events and emergencies in different places, and people don't know what to do. Everyone starts to blame the president. FBI agent Hannah Wells seems to be the one single person who believes in Tom. She is trying to find the criminals, but her main aim is to keep Tom Kirkman alive. This series really gives you a lot to think about. In addition, you can see the inside of the White House and understand how the most powerful person in the world works. You can also imagine what could happen if hackers really did take over the US government. In fact, you know, even though the series is fiction, it could really happen.

ANSWER

The aim of the criminals is to get rid of the President.

The students listen to the radio review a second time for specific details. Have the students read the questions before they listen. This will help them focus on the specific information they need to listen for in order to answer.

The students write their answers on page 71 of the Workbook.

ANSWERS

- 1. d
- 2. in a terror attack
- 3. b
- 4. One of the following: No one wants to help him. / He doesn't really understand the internal politics involved.
- 5. help
- 6. White House
- In this collaborative activity, the students relate to the topic of the listening about computer hacking. They tell their partner about a real or imaginary event involving hackers. Tell them to use the new words and the speech bubbles to help them.

WORKBOOK page 72 Refer the students to the Workbook, page 72 for additional vocabulary practice.

TRACK NEW WORDS

This activity encourages the students to take responsibility for their learning by giving them the tools to monitor their progress and assess how many new words they remember. They are able to self-monitor and check which words they have mastered.

- **A** 1. The students go to the Vocabulary Tracker on page 237 of the Workbook. In writing the meanings of the words in English, they are recalling meanings productively. Tell them to check their answers in the Glossary and then list the words they need to practice. The students can use the Digital Extra component, Wordlist Plus, to review the words that they don't know by creating their own personal wordlist.
 - 2. Tell the students that they can use one of the tips on pages 230-231 of the Workbook to help them learn any of the new words in the list that they don't remember.
- **B** 1. In this collaborative exercise, the students work in pairs to describe a computer and how it works using the new words. Before they begin writing, they should tick the words that they think they will use. Have the students present their descriptions to each other. You may wish to walk around the class and listen to the students. Check that they are using the new words correctly.
 - 2. Ask the students how many new words they used.

Pages 84-85

What's in the Sky?

In this part, the students will read about drones and their uses.

GET READY

This section presents the new words and introduces the students to the topic of the text they are about to read. The students practice recognition of all the new words alone and in context before reading the text to internalize their meanings.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 74 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

This exercise introduces some of the new words the students will learn in Part 2.

1 The students decide which of the new words they can use to talk about the environment. The exercise can be done orally or the students can write their answers in their notebooks. Point out to the students that they may have different answers.

POSSIBLE ANSWERS

cut down, lioness, motor, pipe, rate, sand, wood, zone

2 In this exercise, the students choose the correct answer to demonstrate that they understand the meanings of the new words.

ANSWERS

wood
 code
 miss
 drug
 and the solution
 entirely
 drone
 drone

3 In this exercise, the students choose the correct answer to show that they understand the new words.

ANSWERS

1. a 2. b 3. b 4. a 5. a 6. b

4 In this exercise, the students are required to give examples to show their comprehension of the new words.

POSSIBLE ANSWERS

- 1. a motor-boat / car
- 2. breathe / work out at the gym
- 3. when you are going to buy an electrical appliance / to travel
- 4. Word / Excel / WhatsApp / Outlook
- 5. pen / schoolbag / backpack / book / flowers
- **5** In this exercise, the students complete a text about how drones are used to help save the Amazon Rainforest with the words given. To focus on content, they answer the question about who operates the drones.

ANSWERS

again and again
 cut down
 accurate

3. rate

A small tribe in the Amazon Rainforest operates the drones.

You may wish to share the following background information with the class.

Drones, unmanned aerial vehicles (UAV), are now being used to protect the environment by tracking animal migrations, surveying different landscapes such as forests, rivers, and savannas and monitoring illegal activity such as poaching. The advantages of drones are they are inexpensive, mobile and provide safety for the people and organizations that protect the Amazon.

- This exercise introduces the rest of the new words in the context of a listening passage.
- 1 In this activity, the students decide which words they could use to talk about how people use drones today.

POSSIBLE ANSWERS

environmentally friendly, military, parcel, the air, these days, try (something) out, with the help of

2 In this exercise, the students show their understanding of the new words by finding the words in exercise B1 that are related to the given topics.

ANSWERS

1. fine 4. try (something) out 2. military 5. environmentally friendly

3. legal 6. parcel

3 In this activity, the students complete the sentences with the new words given.

ANSWERS

1. the air 4. These days 2. facility 5. with the help of 3. daily life 6. dolphin

4 The purpose of this exercise is to hear the words from exercise B1 in context. The students listen to the conversation and name something they should not do with a drone.

LISTENING SCRIPT

Flying a drone looks really cool! There are so many things you can do. I loved your photos Max: of the coast! And the dolphins were amazing!

Anya: Yes, it's pretty awesome, but flying a drone is not as simple as you might think.

Max: What do you mean?

The moment your drone is in the air, you have to consider a lot of things, not just taking Anya:

photos.

Max: Like what?

Well there are lots of legal issues. You mustn't fly drones near an airport or near any military Anya:

facility, and the law also tries very hard to protect people's privacy.

I can understand that, but drones are becoming an important part of our daily life. I hear that Max:

these days some companies are sending parcels, and restaurants are even sending takeaway

meals with the help of drones. At least drones are environmentally friendly.

That's true. I really believe that drones are going to change the way we live. Anya:

I agree. If the weather is fine tomorrow, can I come and try out your drone? Max:

Anya: Well, I'm not sure. It's not easy and it cost my parents a lot of money. Let's see what the

weather's like tomorrow ...

ANSWER

One of the following: fly a drone near an airport / fly a drone near a military facility

WORKBOOK page 75 Refer the students to the Workbook, page 75 for additional vocabulary practice.

Pages 86-87

READING 2 An Eye in the Sky

In this section, the students read about the various uses of drones and demonstrate understanding of the main ideas and basic details.

The students read an online article about the different uses of drones focusing on the main idea as reflected in the title.

ANSWER

The drone records (sees) what is happening on the land below.

Suggestion for less-advanced students: Before the students read the entire article, ask them to write the main idea of each paragraph in their notebooks. Point out that the main idea is usually in the first sentence and sometimes in the last sentence of the paragraph. Check their answers before they read the whole article. (In this article, the main idea of paragraph 1 is in the last sentence. In all other paragraphs, the main idea appears in the first sentence.)

Following the Text

The students answer general questions about the text to help them gain an overall perspective of the whole text and how it is organized.

ANSWERS

- 1. Paragraphs 2, 3 and 4
- 2. c

Pages 88-89

The students answer questions about the text in order to demonstrate their comprehension.

ANSWERS

- 1. have a pilot / have anyone flying it
- 2. Drones are used to observe any unusual movement around border areas or other places of military importance. / Drones are equipped with special software that will provide important information about the areas they fly over. / They can land in places far from their controller.
- 3. b, e
- 4. True.... by providing accurate details (about the type and location ...)
- 5. the airplanes (near the airports)
- 6. d
- In this exercise, the students give a personal response to the reading text, considering which use of a drone they consider to be the most important and to give reasons for their answers.

Accept all logical and grammatically correct answers.

Suggestion: In order to offer the students a more detailed examination of the lexical item, focusing on depth of knowledge, point out that *cut down* is a phrasal verb that also means to do less of something. (For example, I am going to cut down on eating sugar.)

Ask the students if they know any other phrasal verbs with down. (For example, turn down, let someone down, break down, slow down, put down)

VOCABULARY PRACTICE

In this section, the students practice both recognition and production of the new words in a variety of contexts.

A In this exercise, the students complete the sentences by choosing the correct answers to show understanding.

ANSWERS

code
 parcel
 dolphin
 position
 woods
 drug
 dolphin
 missed

In this activity, the students show that they understand the meaning of the new words by creating sentences for their partner to complete. Tell them to write eight sentences using the new words, but to leave a blank space where the new word goes. Have the students swap sentences and complete their partner's sentences with the missing word. Then tell them to check their partner's answers to their test. This activity will prepare the students to use the new words in the speaking activity in exercise C.

Suggestion: Walk around and give help with the wording or structure of the sentences. Check that they are clear enough for the students to be able to complete the sentences with the correct word.

The purpose of this collaborative activity is to give the students the opportunity to act out a situation with a partner using the new words. The students roleplay a situation of someone bothering a neighbor by flying a drone above his or her house. Tell the students to use the new words and the speech bubbles as an example.

WORKBOOK page 76 Refer the students to the Workbook, page 76 for more practice of the new words.

WORD POWER

This feature explores vocabulary depth, presenting a group of words from Band II that demonstrates a common linguistic feature. Here the Word Power focuses on words that are connected to talking about computers and technology.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 78 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

Read the explanation with the class. Have the students do the exercises to demonstrate understanding of the new words.

In this exercise, the students match the new words to the pictures.

ANSWERS

1. window

4. volume

2. desktop

5. mouse

3. type

In this exercise, the students complete the sentences with the new words.

ANSWERS

1. tag

5. desktop

2. dot

6. update

3. viral

7. technical

4. drag and drop

Suggestion: Have the students work in pairs to write a dialogue about a computer problem that they have had. It can be real or imaginary. Tell them to use at least four of the new words. You can either walk around the class and listen or ask them to present their dialogue to the class.



WORKBOOK page 78 Refer the students to the Workbook for more practice of the new words.

Pages 90-91

GRAMMAR

Modals (can / could, should, must, may / might)

This grammar section reviews the modals: can, could, should, must, may and might and the semi-modals: be able to and have to.

Read the grammar explanation with the class and point out that modals do not change according to the subject and that they are followed by the base form of the verb. Remind the students that can and could have a few different uses and that *can* is used for ability in the present tense and *could* in the past tense. To check understanding of the uses, ask the students to match the sentences in A to the uses of the modals in B.

ANSWERS

1. b 2. d 3. a 4. c 5. g 6. f 7. h 8. e

Suggestion for more-advanced students: To review the uses of these modals ask the students to work in pairs. Each student should write sentences to match each use of the modals they choose. Tell the students to swap notebooks and take turns telling each other which use of the modal is used in each sentence.

Refer the students to the Grammar Appendix on page 236 for additional information and examples

In this exercise, the students practice using modals by completing the sentences. They must select the correct modal and decide if it should appear in the positive or negative form to complete a logical sentence.

ANSWERS

should / must
 Can, can't
 must / should
 mustn't / shouldn't
 can / could
 may / might not
 should
 may / might

Suggestion: Tell the students to write down the use of the modal for each sentence in the exercise. For example: You *should* read the instructions before you use the new device. (give advice)

In this exercise, the students complete the dialogue with the verbs given and the correct positive or negative form of the modal.

ANSWERS

may / might travel
 Can ... imagine
 must / should think
 must / should pass
 might / may cause
 shouldn't allow

Semi-modals (be able to, have to)

Read the explanation about the semi-modals (*be able to* and *have to*) and explain that like modals, they add meaning to the verb. They also change according to the tense.

ANSWERS

- 1. have to
- 2. are able to
- 3. No, they don't have the same meaning. *Mustn't* means that something is not allowed; *don't have to* means that you have a choice whether to do something or not.

You mustn't leave now. ماد לך ללכת עכשיו. / يُحظر أن تغادر الآن.

You don't have to leave now. אתה לא צריך ללכת עכשיו. / لا يجوز أن تغادر الآن.

Refer the students to the Grammar Appendix on page 236 for additional information and examples.

In this activity, the students choose the correct semi-modal to complete the sentences.

ANSWERS

1. isn't able to 4. have to

2. don't have to 5. wasn't able to

3. wasn't able to

In this exercise, the students practice using the correct form of the semi-modals to complete the sentences in a logical way.

ANSWERS

wasn't able to
 don't have to
 couldn't
 must
 will be able to

Accept all logical and grammatically correct completions of the sentences.

In this productive exercise, the students work in pairs to ask and offer advice. Tell them to think of a problem to discuss with their partner. They can list three or four problems and take turns asking for and giving advice. Tell them to use modals and semi-modals and to look at the speech bubbles to help them.

Suggestion: Have the students share one of the problems and the advice given with the class.

WORKBOOK page 79

Refer the students to the Workbook, page 79 for additional practice.

Pages 92-93

WRITING Describing an Invention

In this scaffolded writing section, the students learn how to describe an invention. Read the explanation about a descriptive essay and explain that the description should be clear enough to help the reader imagine the invention described.

1 The students read the model descriptive essay about an invention. They decide why Liat mentions guiding spaceships.

ANSWER

to show that computers are used for some of the most difficult and the most dangerous jobs

2 The students complete the chart in their notebooks, according to the information in the model.

ANSWERS

- 1. The writer chose the computer because she thinks it is the invention that has changed our daily lives the most.
- 2. Computers are smaller and more attractive than in the past, laptops have a small screen and keyboard; we even have computers in our phones.
- 3. The uses are: to store information, watch movies, communicate with friends, guide spaceships, control traffic and help doctors in operations.
- 4. She thinks computers not only make the world a fun place to live in, but they also frequently save lives

Suggestion for less-advanced students: Draw the chart on the board and complete it with the students. Point out that all the answers appear in the model and check that the students go back to the model to find them.

Writing Tip

Read the tip with the students and point out that using adjectives to write a description makes it clearer and more vivid.

In this exercise, the students read the model again to find examples of adjectives.

ANSWERS

- 1. Five of the following: huge / small / large / intelligent / accurate / great / wonderful / clever / fun
- 2. Two of the following: heavier than / less powerful than / smaller than / more attractive than
- 3. One of the following: the most difficult / the most dangerous
- This activity offers practice in the use of comparative and superlative adjectives to write a good description. Tell the students to form the correct comparative and superlative forms of the adjectives in brackets.

ANSWERS

- 1. the most useful
- 4. quick and easy
- 2. better than
- 5. more important than
- 3. the fastest

WORKBOOK page 81 Refer the students to the Workbook, page 81 for additional practice of the writing skills.

WRITING TASK

The task requires the students to apply what they have learned in the unit. Read the writing task with the students and tell them to look at the pictures and choose one of the items. Tell them to describe the item and explain why they think it is important. Tell them to write 80-100 words using the new words.

Go over the guidelines for the task and make sure that the students understand what they are required to do.

Point out to the students that they can use the checklist to edit their work and check that they have completed all the requirements for the task so that they won't lose any points. The checklist appears on page 216 of the Workbook.

To assess this activity, use the photocopiable chart on page 206 of this Teacher's Guide.

Pages 94-95

SPEAK YOUR MIND

This section provides the students with the opportunity to practice their spoken language in a debate. They learn how to collaborate in a team to structure an argument, and state their points of view in order to debate a controversial topic. Each unit prepares the students for a stage in the debate process. For the full debate process see page 172 of this Teacher's Guide.

LET'S TALK

The students use pictures to stimulate a discussion about the possibility of robots replacing human teachers.

1 In this interactive activity, the students answer the questions about the pictures.

ANSWERS

- 1. Accept all logical and grammatically correct answers.
- 2. Accept all logical and grammatically correct answers.
- 3. Possible answers: They can show understanding and feelings / they can read and understand the students non-verbal expressions / they can change the lesson depending on the students' mood / they can speak in varied tones (not a monotone) / they make eye contact with all the students.
- **2** In this interactive activity, the students discuss the advantages and disadvantages of using technology in class. Tell the students to use their answers from exercise A1 and to use the speech bubbles to help them.

LET'S DEBATE

This section introduces the students to the new words and teaches them how to prepare for the debate. Explain to the students that a debate involves two teams who present arguments for and against a topic and try to persuade the audience to agree with their opinion.

Read the debate topic with the students. Point out that the debate topic is usually controversial and that they will learn to prepare arguments that will support both views – for and against – the topic.

Learn New Words

In this flipped classroom approach, the students go to their Workbook before the lesson. The advantage of the flipped classroom is that the students become independent learners and work at their own pace. Have the students match the words to their meanings on page 83 of the Workbook. The students have the option of learning and practicing the new words in the Digital Extra component called Wordlist Plus.

The students learn the new words they will need to use to introduce their topic.

1 Tell the students to find the words that can be used to express an opinion.

POSSIBLE ANSWERS

certainty, definite, plain, there's no doubt, would prefer

2 The purpose of this exercise is for the students to complete three of the sentences to show that they understand the meanings of the new words while at the same time relating the sentences to the debate topic.

Accept all logical and grammatically correct answers.

Suggestions for less-advanced students: Do the exercise together as a class. Have the students brainstorm their answers and then choose some of them to write on the board. This will help the students to see a variety of answers.

Suggestion for more-advanced students: Have the students who have used different words read out their sentence completions so that the whole class is exposed to all of the new words and the students have a chance to hear how they are used.

Tip! Introduce the topic

Read the tip with the students. Remind them of the previous stages in the debate process (brainstorming and choosing ideas). Now they need to learn how to introduce the topic. Tell them to try to introduce the topic with information that catches the audience's attention.

In this activity, the students read quotes that introduce a topic. The students decide which quotes support the idea of replacing teachers with technology and which do not.

ANSWERS

- 1. supports the topic
- 2. does not support the topic
- 3. does not support the topic
- 4. supports the topic
- **2** Tell the students to listen to two speeches about using technology in class and decide which quotes are used. Tell them to read the quotes again before they hear the recording so that they will be familiar with what they hear.

LISTENING SCRIPT

Speaker A: Good morning. Bill Gates once called technology in the classroom "just a tool". For him the teacher is more important. I certainly agree with him. There is no doubt that technology is part of our reality everywhere, and has advantages when it is used properly. But how much should we use it in class? I can say with certainty that it can never and should never take the place of a teacher, for various reasons.

Speaker B: Someone once said that technology can take our educational world to new heights – if only we will let it. Using technology in the class is a somewhat complex matter, but it is plain to me that, these days, students who use technology to study have a definite advantage. Technology is making huge changes in the world today – would you prefer to stay behind the rest of the world with your pens, notepads and books? Of course not, and here are some reasons why.

ANSWER

Speaker A used quote 3.

Speaker B used quote 4.

In this activity, the students, in their teams prepare and present their introductions.

- Tell the students to pay special attention to introducing the topic. Suggest that they can use ideas in exercise C and add their own. Then tell them to organize their ideas to present to the class. Tell them to use the new words and the Useful Phrases to help them.
- **2** Tell the students to read the checklist on page 218 of the Workbook to help them prepare their introduction.
- **3** The students in each team present their ideas to the class.

While each pair of students is giving their presentation, have the other students evaluate them according to the following criteria:

- 1. Could I understand what they said?
- 2. Did they speak fluently?
- 3. Did they state their opinion / argument clearly?

Suggestion: Tell the students that each team member should present at least one idea. This is in order to have the whole team take responsibility for preparing the presentation. Alternatively, you can call on one or two students from each team to present the team's ideas.

WORKBOOK page 83 Refer the students to the Workbook, page 83 for additional vocabulary practice.

TRACK NEW WORDS

This activity encourages the students to take responsibility for their learning by giving them the tools to monitor their progress and assess how many new words they remember. They are able to self-monitor and check which words they have mastered.

- **A** 1. The students go to the Vocabulary Tracker on page 238 of the Workbook. In writing the meanings of the words in English, they are recalling meanings productively. Tell them to check their answers in the Glossary and then list the words they need to practice. The students can also use the Digital Extra component, Wordlist Plus, to review the words that they don't know by creating their own personal wordlist.
 - 2. Tell the students that they can use one of the tips on pages 230-231 of the Workbook to help them learn any of the new words in the list that they don't remember.
- **B** 1. In this activity, the students write about what daily life will be like 20 years from now, using the new words. Tell the students to use the information from the reading texts on pages 76-77 and 86-87 to help them. Before they begin writing, they should tick the words that they think they will use. Then they should share their descriptions with a partner.
 - 2. Ask the students how many new words they used.

Pages 96-97

REVIEW

This section reviews the new words and expressions taught in the unit by practicing a variety of skills designed to help the students remember the new words. All the new words are listed according to the part of the unit in which they appear. Have the students go over all the words to make sure they know what they mean before doing the exercises. They can test themselves using Wordlist Plus and the Vocabulary Tracker. The review also includes a review of the grammar points taught in the unit. The last two exercises in the Review are cumulative and review words and grammar points from Units 1-3.

Suggestion: Review the new words orally by giving the students the meanings in Hebrew or Arabic of some of the more challenging words and asking the students to find the words on the word list.

In this exercise, the students complete the graphic organizer with at least six new words. They should find words that relate to nature and the environment.

POSSIBLE ANSWERS

damage, destroy, economy, get rid of, growth, handle, make, vehicle, again and again, compare, cut down, daily life, dolphin, drone, environmentally friendly, lioness, the air, wood, there's no doubt

Suggestion for more-advanced students: Ask the students to write sentences or a short paragraph using the new words they chose.

In this exercise, the students choose the correct answer to show that they understand the meanings of the words in the unit.

ANSWERS

- wallet
 targets
 fine
 hire
- 3. carry 7. compared
- 4. legal
- In this exercise, the students complete sentences with the positive or negative form of the Future Simple (*will*) or *be going to*. Tell them to pay attention to the words in the sentence that indicate which form of the future is used.

ANSWERS

- 1. will take place 4. won't tell
- 2. are ... going to buy 5. aren't going to finish
- 3. is going to rain 6. won't come, are going to visit
- In this exercise, the students complete the sentences with the modals and semi-modals that are given. Tell them to use each modal or semi-modal only once.

ANSWERS

- am not able to
 mustn't
 can
 might not
 doesn't have to
 have to
 shouldn't
 might not
 able to
- In this recall activity, the students produce words learned in this and the previous units. This exercise reviews new words in the context of a passage about Leonardo da Vinci. The students complete the passage with words and expressions they have learned in the book. They are given some of the letters in the missing words to help them recall the words.

ANSWERS

- hundreds
 laughed
 later
 ahead
 military
 vehicle
 accurate
 ahead
 daily lives
- 5. based
- In this collaborative activity, the students work in pairs to prepare a conversation with a friend who has invented an app. Tell them to use the new words and the grammar that they have learned and use the speech bubbles as an example. Have them act out their conversations for the class.

WORKBOOK page 85 Refer the students to Check Yourself in the Workbook, page 85.

Point out that Check Yourself reviews vocabulary, grammar and writing. The vocabulary section reviews recognition and production of the vocabulary in the unit. It is cumulative and includes words learned in all previous units.

The students are referred to the Digital Extra component called Vocabulary Booster. The Vocabulary Booster offers reinforcement and assessment, and promotes speaking. Interactive activities include speaking activities, games, a unit review and a cumulative review.

Pages 98-99

READ AND CHECK No More Highways – Just "Skyways"?

The students are presented with a text for independent reading that recycles words from all previous units.

- A To monitor vocabulary acquisition, the students are asked to look at the words in bold in the text and see how many they remember. The reading text provides a cumulative review of words learned in former units.
- The students read the article about flying vehicles. Tell the students that while reading, they should focus on what types of flying vehicles are mentioned.

ANSWERS

personal transportation, air taxis, the jetpack

The students answer the questions about flying vehicles. The questions reflect the categories of comprehension: basic (or literal), inference, integration and personal response.

ANSWERS

- 1. b
- 2. be able to carry one passenger
- 3. a and d
- 4. problems that must be considered
- 5. Two of the following: flying cars allow people to move faster from place to place (line 7) / they will save space on the ground (line 9) / businesses will not need to be located in city centers (line 32) / we will need less parking space on the ground (line 33) / they reduce air pollution (line 35) / our cities will have more parks and be much greener (lines 36-37)
- 6. 6
- In this activity, the students write a paragraph expressing their own opinion about the advantages or disadvantages of flying cars and which is the most important. Remind them to use correct paragraph structure: main ideas and supporting sentences.

Accept all logical and grammatically correct answers.

TASK

The task requires that the students to apply what they have learned in the unit. They can choose one of the two tasks.

In the first task, the students think of an invention that would help make the world a better place and explain to the class what problem it would solve and how it would operate.

In the second task, the students research an inventor and his or her invention from more than one hundred years ago and present it to the class.

Go over the guidelines for the task on page 222 of the Workbook and make sure that the students understand what they are required to do.

Tell the students to mark the checklist on page 222 of the Workbook when they have completed the task. Explain that the checklist can help them see if they have completed all the requirements for the task so that they won't lose any valuable points.

Tell the students that they can use any information in the unit to help them.

To assess this activity, use one of the photocopiable charts on page 213 or 214 of this Teacher's Guide.

Suggestion: The students can use the following digital tools: to think of an invention – Glogster https://edu.glogster.com/ or PowerPoint to create a presentation about an invention that would make the world a better place. to present their finding – *Prezi* https://prezi.com/

SUGGESTIONS FOR FURTHER READING

I, Robot by Isaac Asimov (Oxford Bookworms, level 5)

Leaving Microsoft to Change the World by John Wood (Penguin, level 3)

Unlocking the Universe by Stephen & Lucy Hawking (Penguin, level 5)

Business at the Speed of Thought by Bill Gates (Penguin, level 6)

The Road Ahead by Bill Gates (Penguin, level 3)