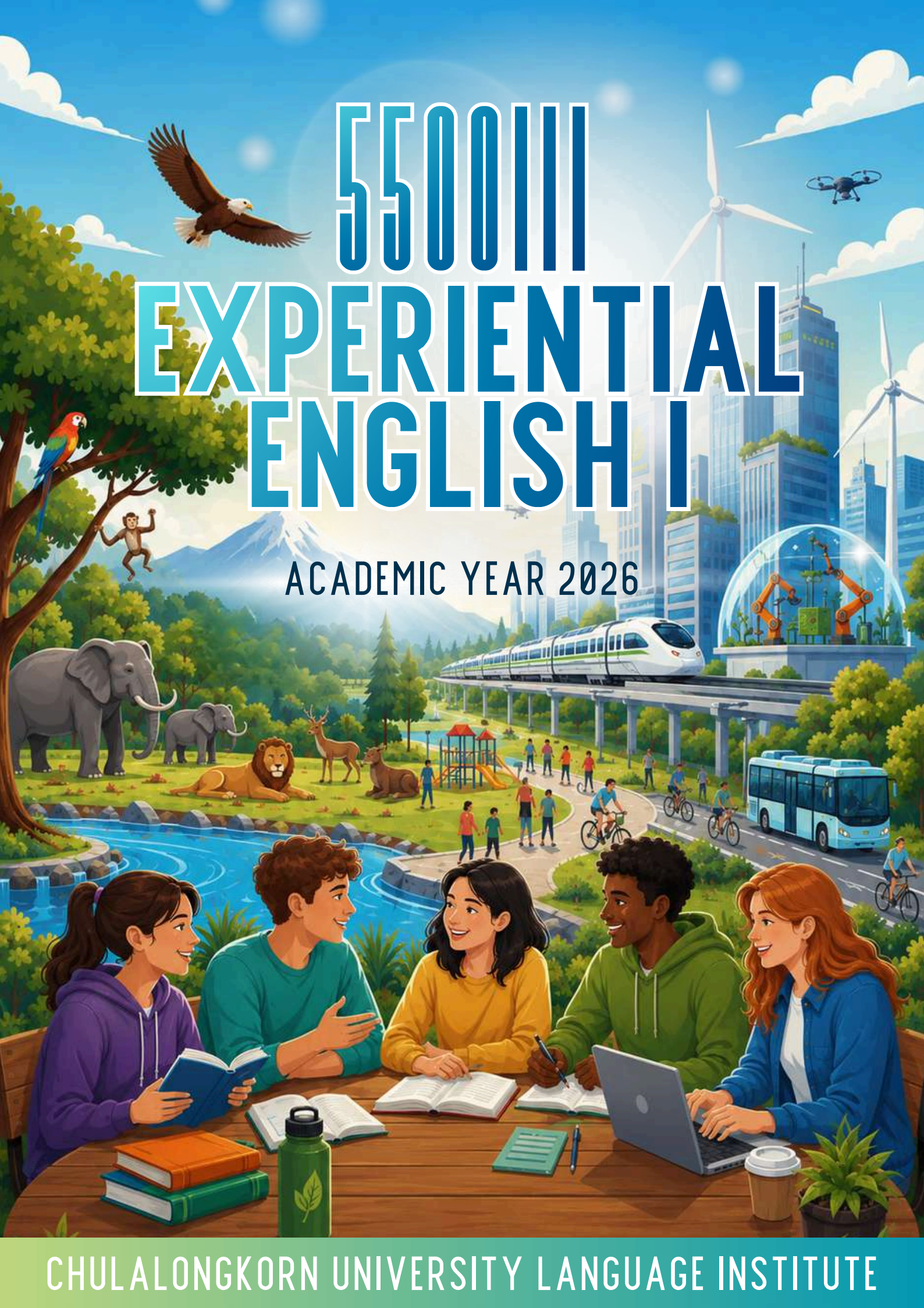




5500111 EXPERIENTIAL ENGLISH I

ACADEMIC YEAR 2026

CHULALONGKORN UNIVERSITY LANGUAGE INSTITUTE

EXPERIENTIAL ENGLISH I



สถาบันภาษา
LANGUAGE INSTITUTE
Chulalongkorn University

Welcome to Experiential English I.

This course is designed to help students develop their English language proficiency through meaningful engagement with contemporary global issues. Throughout the course, students will practice the four language skills—listening, speaking, reading, and writing—for everyday communication and for acquiring information from a variety of sources and media.

Students will have opportunities to compare, analyse, and synthesise information, as well as present their ideas through both oral and written communication. Particular emphasis is placed on developing narrative writing skills and communicating ideas effectively in different contexts.

The coursebook is organised into four thematic units inspired by selected United Nations Sustainable Development Goals (SDGs):



Through these themes, students will explore real-world issues while strengthening their English language skills and expanding their understanding of the world around them.

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HOW TO USE THIS COURSEBOOK

Each unit is divided into five sections:

- **Reading** – Developing reading comprehension skills through engaging texts related to contemporary global issues and the Sustainable Development Goals (SDGs).
- **Language Focus** – Building vocabulary and grammatical structures that support effective communication in both spoken and written English.
- **Writing** – Developing descriptive and narrative writing skills through guided practice, ranging from sentence construction to paragraph writing.
- **Communication Activity** – Applying language skills through discussion, collaboration, problem-solving, and spoken interaction.
- **Glossary** – Reviewing key vocabulary and useful expressions from each unit to support language learning and retention.

VIDEO LESSONS



Throughout this coursebook, you will see this video icon next to certain lessons and activities. This icon indicates that the content is part of a video lesson.

During designated weeks, there will be no face-to-face class meeting. Instead, you are required to:

- **Watch the assigned video lesson.**
- **Complete the accompanying video worksheet or activity.**
- **Submit the completed work to your teacher by the specified deadline.**

Please look for the video icon throughout the coursebook and follow your teacher's instructions regarding video lesson schedules and submissions.

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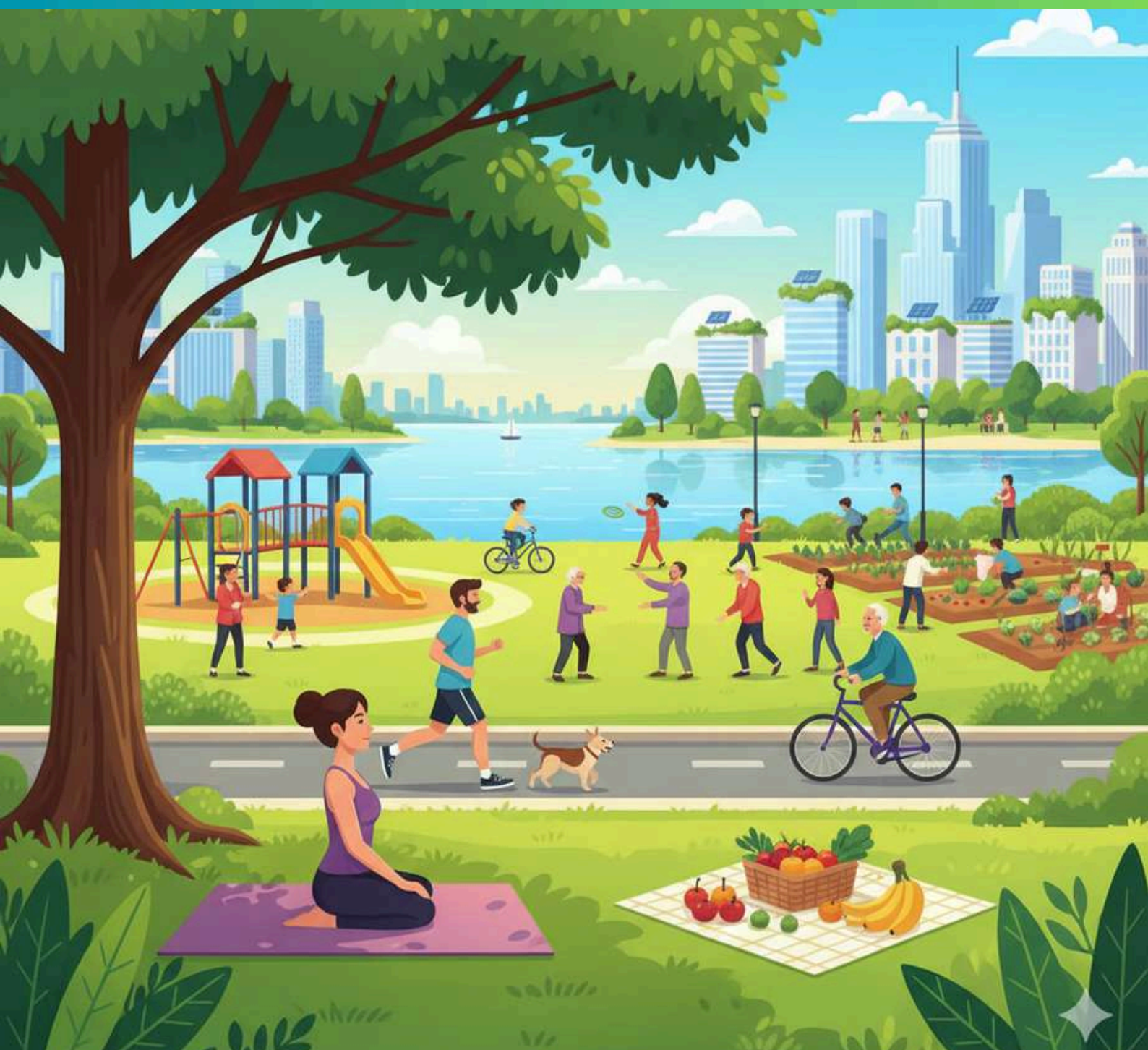
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UNIT 1

GOOD HEALTH & WELL-BEING

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READING

Reading Text 1

Warm-up activity

Discuss your answer with your partner.

1. Look at the pictures of food in the reading passage. How are they different?
2. Do you think the food we eat affects how long we live?
3. What do you think people can do to live a longer and healthier life?

Look at the title of the text and predict what you are going to read.

The Diet That Could Add a Decade to Your Life

What is skimming?

Skimming is a useful reading strategy for surveying a text to get a general idea of its content. When you skim a text, you simply ignore the details included in it and focus on looking for the main idea.

Main ideas can usually be found in the first sentence of a paragraph. It is, nevertheless, worth noting that the author may sometimes begin the second sentence with words like “yet”, “but”, “however”, etc. that negate the first sentence. This is a clue that the second sentence is actually the main idea of the paragraph.

The Diet That Could Add a Decade to Your Life



Adapted from a photo by
Hamed Mohtashami Pouya (Unsplash)

[1] What you eat may determine not only how you feel today but also how long you live. Researchers analysing global health data have found that diets high in refined grains, added sugars, red and processed meats, and dairy are linked to millions of **premature** deaths each year. In contrast, diets rich in whole grains, fruits, vegetables, nuts, beans, and fish can dramatically extend **life expectancy**.

[2] Modelling studies suggest that a 20-year-old woman in the United States who adopts an **optimal** diet could increase her life expectancy from 80 to 89 years. For men, the gain is similar, though starting from a lower **baseline**. Even those who make changes later in life benefit: a 60-year-old woman could add seven years, and an 80-year-old might still gain a few.

[3] The key is not only what you eat but what you avoid. Reducing sugary foods, processed meats, and **excess** salt is critical. High salt **intake** is a major contributor to cardiovascular disease, the leading cause of death worldwide. **Centenarians** studied across Asia, Europe, and Australia tend to consume less salt, drink little alcohol, and maintain a balanced, diverse diet.

[4] Long-term studies reinforce these findings. People who consistently follow Mediterranean-style eating patterns through middle age are far more likely to reach 70 free of **chronic disease**, physically active, and mentally sharp. Those who **indulge in** fatty, salty, and meat-heavy diets rarely age well.



Adapted from a photo by Ella Olsson (Unsplash)

[5] Weight also matters. Most people over 95 are slim, though being slightly overweight—not obese—appears to support daily functioning better than being underweight. Extreme calorie restriction, often promoted as a **longevity** strategy, works in animals but remains **unproven** in humans and may **impair** quality of life.



Adapted from a photo by Louis Hansel (Unsplash)

[6] The conclusion is clear: if you want to maximize your chances of living to 100 in good health, start with your plate. Choose plants, whole grains, and fish—and keep sugar, salt, and processed meats to a minimum.

Reading Activity 1

Read Reading Text 1 and highlight a sentence that could be the main idea of each paragraph.

What is scanning?

When you read, sometimes you simply scan for certain details. Your eyes act like a barcode scanner focusing only on the relevant or needed information. Scanning for details, like how the red line in the scanner runs, requires speed. You have the information you need in mind, and your eyes try to scan for such information you need.

To find a specific detail in academic texts, you need to first locate the appropriate heading. If a text has no headings, the topic sentence of each paragraph is like a heading as it tells you what the whole paragraph is about. Then scan for the information you need under that heading or in that paragraph.

Reading Activity 2

Fill in the blanks using the correct words from the words below.

alcohol	avoiding	choose	diet
excess	extend	harm	maximise
minimise	overweight	poor	refined grains
remains	underweight	well-being	

How Diet Influences Longevity

Introduction

What you eat affects both your current (1) _____ and life expectancy.

Impact of Diet on Health and Longevity

Unhealthy diets – high in (2) _____, added sugar, red and processed meats, and dairy – are linked to millions of premature deaths.

Healthy diets – rich in whole grains, fruits, vegetables, nuts, beans, and fish – can significantly (3) _____ life expectancy.

Evidence from Studies

(4) _____ sugar, processed meats, and (5) _____ salt is critical.

High salt intake is a major contributor to cardiovascular disease, the leading global killer.

Centenarians consume less salt, drink little (6) _____, and maintain a balanced diet.

Long-Term Eating Patterns

The Mediterranean (7) _____ is linked to healthy aging.

Diets high in fat, salt, and meat lead to (8) _____ aging outcomes.

Role of Weight and Calorie Intake

Most people over 95 are slim.

Being slightly (9) _____ is better than being (10) _____ for daily functioning.

Extreme calorie restriction works in animals but (11) _____ unproven in humans and may (12) _____ quality of life.

Conclusion

To – (13) _____ chances of living to 100 in good health:

– (14) _____ plants, whole grains, and fish.

– (15) _____ sugar, salt, and processed meats.

Reading Activity 3

According to Reading Text 1, write **T** if the statement is **TRUE** and write **F** if the statement is **FALSE**.

- _____ 1. The more you eat, the longer you live.
- _____ 2. What you eat can influence and boost your mood.
- _____ 3. Changing eating habits may help prevent premature death.
- _____ 4. You have to start eating well from an early age; otherwise, you may shorten your lifespan.
- _____ 5. People who live to 100 often maintain a balanced diet, limit salt intake, and avoid alcohol.
- _____ 6. It is recommended that people be underweight to live longer.
- _____ 7. To stay healthy, people should strictly control their calorie intake.
- _____ 8. The Mediterranean diet is one of the most recommended eating patterns for longevity.
- _____ 9. Foods high in fat, salt, and red meat are not recommended.

Reading Activity 4

Use the food words provided to complete the table by organizing them into two categories: Recommended Foods and Foods to Avoid.

alcohol	beans	dairy products	fish
fruits	nuts	processed meats	red meat
refined grains	salty food	sugary food	vegetables
whole grains			

Recommended Foods	Foods to Avoid

Add more food to each category in the table.

Recommended Foods	Foods to Avoid

READING

Reading Text 2

Warm-up activity

Consider the following aspects of life. Rank them according to their importance in your life. Then, share your ranking with a classmate.

- A) Relationships
- B) Study / Work
- C) Leisure
- D) Money and possessions
- E) Fame

Reading Activity 1

Skim Reading Text 2 and answer the following questions.

1. How does the first sentence introduce the topic of the text?

2. In which paragraphs does the writer tell Stephen King's story, and in which paragraphs does the writer tell his own story?

3. How is the text organized? How can this be identified through skimming?

4. A narrative usually consists of a background, a conflict, and a resolution. Which paragraphs (5, 6, 7) correspond to each of these elements?

Work-Life Balance: Lesson We Learn from Stephen King's Desk

[1] At the pinnacle of his success, and in the depths of an addiction, Stephen King bought a desk.

[2] It was “the sort of massive oak slab that would **dominate** a room,” something he had always dreamed of. He placed the prized possession in the middle of his study where he tirelessly went to work every day—wasted and drunk and alienated¹ from his family.

[3] Due to an **intervention** by his family, King got sober² and got rid of that huge desk, replacing it with a smaller one, which he put in the corner of his office instead of in the centre of the room. His kids would come up to the office—now more a living room than a retreat centre³—to watch sports games and movies. Often, he would join them, grabbing a slice of pizza and watching the game for a while.

1. alienated = feeling that you have no connection with the people around you

2. sober = not drunk

3. retreat centre = a place where individuals go to withdraw from daily life

[4] Years later in his memoir *On Writing*, King shared a lesson he learned from this tale of two desks. At the end of his struggle with an **addiction** that nearly cost him his family, he concluded that “life isn’t a support system for art. It’s the other way around.” The same can be said for how we **approach** our own work.



Adapted from the cover of *On Writing: A Memoir of the Craft* by Stephen King

[5] Several years ago, I wrote a list of dreams and goals with dates **assigned** to each. On that list at the 10-year mark was the goal, “Write and publish a book.” A year later, the goal was **realized**. After a year of late nights and early mornings, of fighting with my wife about when I would come to bed and often breaking that promise and of countless misunderstandings with colleagues, I had finally done it. I’d written a book. And I was proud.

[6] When the big day arrived, nothing went right. Visiting the local Barnes & Noble⁴, I failed to find a single copy of my book on the shelves. Within a few hours, Amazon ran out of its short supply, and the people I had told to go buy the book were telling me they couldn't find it anywhere. Embarrassed and feeling sorry for myself, I left the house to run some errands and to get a drink with a friend. We were supposed to be celebrating, but instead I wanted to commiserate⁵.

[7] A few hours later, he dropped me off at my house. Crossing the threshold⁶, I stepped into a house full of people who shouted, "Surprise!" My wife had thrown me a party with 20 of my closest friends. After walking around, greeting and thanking everyone, I reached for a cupcake and saw on our dining room table a small white envelope with a card inside. The card, which was from my wife, said, "It was never a question of if. It was always a matter of when." She who had promised to be my biggest fan had been **rooting** for me from the very beginning.



- 4. Barnes & Noble = the largest retail bookseller in the United States
- 5. commiserate = express or feel sympathy or pity
- 6. threshold = the floor of an entrance to a building or room

Reading Activity 2

Now, use the information you have gained from skim reading to predict which paragraph is likely to contain the answers to the following questions. Then, scan Reading Text 2 to find the answers.

1. What health condition did Stephen King suffer from?
 - A) Depression
 - B) Alcoholism
 - C) Heart disease
 - D) Anxiety disorder

2. What was the writer’s goal and what did he sacrifice to achieve it?
- A) He wanted to be famous, and that made him become self-conscious and paranoid.

B) He wanted to spend more time with his friends and family, but that caused his career to suffer.

C) He wanted to finish writing a book, and this affected his health and personal relationships.

D) He wanted more time to finish a project, so he had to live apart from his family.
3. Why was the writer of the article embarrassed and disappointed before returning home?
- A) His book was unavailable at major bookstores.

B) His friend refused to spend time with him after work.

C) No one accepted his invitation to celebrate his success.

D) The publisher refused to print more copies.
4. What lesson does the writer share through Stephen King’s story and his own experience?
-
5. What do you think Stephen King’s office looked like after he replaced the large desk with a smaller one? Draw a sketch of his office based on details from the text.

Before	After
	

Discussion

Discuss the following questions with a partner or in a group.

- 1. How can work or ambition affect relationships with family and friends, both positively and negatively?
- 2. In today’s society, is it more difficult to maintain a healthy work–life balance than in the past? Why or why not?
- 3. What are some signs that a person is spending too much time working?
- 4. How can people protect their personal lives while still being ambitious and hardworking?
- 5. How does technology (e.g., phones, social media, remote work) affect work–life balance?

Post-reading activity

The following phrases are taken or paraphrased from Reading Text 2. They are listed in the order of events in the stories. Use them as hints to retell the stories to a friend without looking at the full text. Add any details you can remember.

Stephen King’s story	The writer’s story
• successful career • massive desk • study room • went to work every day • addiction problems • intervention • smaller desk • his kids • sport games, movies, pizza	• publish a book • late nights and misunderstandings • couldn’t find his books • Amazon • get a drink • went back home • party • small white envelope • his wife

LANGUAGE FOCUS



Constructing sentences

To write a sentence, there are two major components: the subject and the predicate.

Subject

A subject tells who or what the sentence is about. It can be considered as the **doer** of a sentence or **causes of the action** expressed by the verb that follows. A subject may appear as a single word, a phrase, a compound subject or a clause.

Every sentence begins with a **capital letter** and ends with a **punctuation mark**, such as a full stop (.), a question mark (?), or an exclamation mark (!). These features indicate where the sentence starts and ends.

The table below shows examples of different types of subjects.

Type of subject		Examples
A single word	noun	<u>Stephen King</u> bought a desk.
	pronoun	A few hours later, <u>he</u> dropped me off at my house.
A phrase	gerund phrase	<u>Reducing sugary foods, processed meats, and excess salt</u> is critical.
A compound subject (two subjects or more)		Because <u>the prefrontal cortex and the hippocampus</u> are the two areas most susceptible to cognitive decline.
A clause	noun clause	<u>What you eat</u> may determine not only how you feel today but how long you live.

Predicate

The predicate is the part of the sentence that gives information about the subject. It usually includes the verb and tells what the subject does, feels, or is.

A predicate may include:

- **a verb** (action or state)
- **an object** (receives the action)
- **a complement** (completes the meaning of the sentence)

The following are examples of predicates.

Subject	Predicate		
	Verb	Object	Complement
Stephen King	bought	a desk.	
What you eat	may determine	<i>not only how you feel today but how long you live.</i>	
Reducing sugary foods, processed meats, and excess salt	is		critical.



Reminder: There are some common mistakes when using nouns, pronouns and adjectives. The following points should be taken into consideration when constructing sentences.

Noun

Nouns are words used to name people, things, or ideas. They can be general (common nouns) or specific (proper nouns). Nouns can function as the subject, object or complement of a sentence.

Nouns are divided into countable and uncountable nouns:

Uncountable nouns can stand alone in a sentence.

- o Example: **Information** is important.

Countable nouns must show number (singular or plural).

Singular nouns need an article (a/an) or a determiner (his, her, our, this, etc.).

Plural nouns usually take an –s or –es ending.

- o Example: She bought two **books**.

The article “*the*” can be used with both countable and uncountable nouns when the reader or listener already knows which specific thing is being referred to.

Therefore, when writing sentences, it is important to check that each noun has the correct article or determiner.

	Singular	Plural	With “the” (specific / known)
Countable noun	<i>an</i> apple <i>my</i> apple	apples	<i>the</i> apple <i>the</i> apples
Uncountable noun	juice	-	<i>the</i> juice

Pronoun

Pronouns are words used to replace nouns. They help make writing smoother, more concise, and less repetitive.

Pronouns are used when the noun has already been mentioned or is clear from the context, so the reader or listener understands what the pronoun refers to.

Example:

Stephen King bought a desk. He placed it in his office.

(*He* replaces *Stephen King*, and *it* replaces *desk*.)

PERSONAL PRONOUNS

Person	Singular/Plural	Subject	Object	Possessive	Reflective
First	Singular	I	me	mine	myself
	Plural	we	us	ours	ourselves
Second	Singular	you	you	yours	yourself
	Plural	you	you	yours	yourselves
Third	Singular	he	him	his	himself
	Singular	she	her	hers	herself
	Singular	it	it	its	itself
	Plural	they	them	theirs	themselves

DEMONSTRATIVE PRONOUNS

	Near (close to you)	Far (farther from you)
Singular	this	that
Plural	these	those

INDEFINITE PRONOUNS

	Person	Place	Thing
All	everyone everybody	everywhere	everything
Part (positive)	someone somebody	somewhere	something
Part (negative or question)	anyone anybody	anywhere	anything
None	no one nobody	nowhere	nothing



Note: Because indefinite pronouns refer to unidentified quantities, they are generally treated as singular.

Adjective

Adjectives are words that describe nouns. They give more information about things such as size, colour, shape, characteristics, ownership, or opinion.

Adjectives can appear before nouns, together with other adjectives or nouns, or after verbs (especially *to be* and *other linking verbs*).

before noun	<u>countless</u> misunderstandings <u>processed</u> meats
together with other adjectives or nouns	a <u>balanced</u> , <u>diverse</u> diet <u>fatty</u> , <u>salty</u> , <u>and meaty</u> diets <u>Extreme</u> calorie restriction
after some verbs (v. “to be” and other linking verbs)	Most people over 95 are <u>slim</u> . Reducing sugary foods, processed meats, and excess salt is <u>critical</u> .

POSSESSIVE ADJECTIVE AND DEMONSTRATIVE ADJECTIVE

Possessive adjective (+ noun)	Demonstrative adjective (+ noun)
my	this
our	that
your	these
his	those
her	
its	
their	



Note: Possessive adjectives (the ownership to a noun) and demonstrative adjectives (the distance and the quantity of a noun) are used to modify nouns, so they should be followed by nouns.

LANGUAGE FOCUS



Sentence structure

A sentence is a group of words that conveys a complete thought and follows grammatical rules. Every sentence consists of two parts: the subject and the predicate.

The subject is usually a noun or a noun phrase and tells who or what the sentence is about.

The predicate contains a verb and gives information about the subject. I may also include an object or a complement.

In addition, every sentence begins with a capital letter and ends with a punctuation mark, such as a full stop (.), a question mark (?), or an exclamation mark (!). These features show where a sentence starts and ends.

There are three basic sentence types of sentences: a simple sentence, compound sentence, and complex sentence.

Simple sentence

A simple sentence contains one subject-verb combination (one main clause).

Some sentences include an object, while others include a complement, providing additional information to complete the meaning of the sentence. A complement can be a word(s), a phrase(s), or a combination. Examples of simple sentences are as follows:

Subject	Predicate		
	Verb	Object	Complement
I	am		inspired.
It	has	immediate effects	on your brains.
I	wrote	a list of dreams and goals.	
Long-term studies	reinforce	these findings.	

Compound sentence

A compound sentence combines two simple sentences. Each part has its own subject and verb (independent clauses).

These clauses are joined using coordinating conjunctions. There are seven coordinating conjunctions: and, but, for, nor, or, so, yet. A comma is often used before the conjunction when joining two complete sentences.

Examples of compound sentences are as follows:

A sentence	Coordinating conjunction	A sentence
I was sitting at my desk,	and	a thought went through my mind.
That sounds interesting,	but	I really want to know only one thing.
We were supposed to be celebrating,	but (instead)	I wanted to commiserate.

Complex sentence

A complex sentence contains one independent clause and one or more dependent clauses.

An independent clause can stand alone as a complete sentence

A dependent clause cannot stand alone and must be connected to an independent clause.

Dependent clauses often begin with subordinating conjunctions such as *because, although, when, if, and since*.

Examples of complex sentences are as follows:

Independent clause	Dependent clause (Subordinating conjunction + Clause)
Most people over 95 are slim	(though) being slightly overweight – not obese – appears to support daily functioning better than being underweight.
I realized that the grant-writing was going well	(because) I was able to focus and maintain my attention for longer than I had before.



Notes for students:

- The independent clause can stand alone as a complete sentence.
- The dependent clause adds extra information and begins with a subordinating conjunction.
- Common subordinating conjunctions include: because, although, though, when, if, since.

Dependent clause (Subordinating conjunction + Clause)	Independent clause
(When) I stuck my head out of my lab door,	I noticed something.
(When) the big day arrived,	nothing went right.

SUMMARY

Sentence type	Definition	Structure
Simple sentence	One subject and one verb (independent clause)	Subject + Verb (+ Object/Complement)
Compound sentence	Two simple sentences (independent clauses) joined by a coordinating conjunction	Independent Clause + Coordinating Conjunction + Independent Clause
Complex sentence	One independent clause one or more dependent clauses beginning with subordinating conjunctions	Independent Clause + Dependent Clause (Subordinating Conjunction + Clause)

WRITING

Writing Activity 1



Answer the following questions in complete sentences.

1. Where were you born?

2. What made you excited or happy when you were a child?

3. What was your dream job as a child?

4. How did you feel when you were in your last year of high school?

5. What is your favourite movie? How did you feel when you watched it?

6. What was your favourite subject at school? Why did you like it?

Writing Activity 2

Read the text below and fill in each blank with an appropriate coordinator. Then, think of a lesson that can be used to conclude the story.

A long time ago in the middle of the Alps, there was an old man living with his goat, Blanchette. Blanchette was always fastened to a tree. She was often sad, _____ sometimes she didn't eat her food. One day she asked her master for more freedom. She said, "You can tie me with a longer rope, _____ you can build a special enclosure for me." First, he tied her with a longer rope, _____ Blanchette was still sad. A few days later, he built a special enclosure. At first, Blanchette was very happy with this decision, _____ soon the enclosure appeared very small compared to the big mountains. One summer night, Blanchette decided to leave for the mountains, _____ the next morning, she jumped out of the enclosure _____ ran away.

The fields seemed so vast to her. She ate many varieties of plants, _____ she enjoyed meeting new friends. All day, she ran in the Alps until the sun set behind the hills. Blanchette was surprised when the moon appeared in the sky. Then she became afraid. She heard a strange noise, _____ she decided to go back to her enclosure. She walked for a long time but couldn't find the road. Finally, she became very tired, _____ she decided to stop. She tried to rest, _____ her fear prevented her from sleeping. In the darkness, she saw a shape. It was a wolf! They fought for a few minutes. She shouted for help, _____ nobody heard her. The wolf ate her, _____ the poor old man never saw his little goat again.

What is the lesson (moral) of the story?

Writing Activity 3



Read the text carefully. Then:

- Underline the verbs that describe past actions. (The first one has been done for you.)
- Circle the verb–adjective pairs that describe states and emotions. (The first one has been done for you.)

Writing Activity 4

Complete the story by filling in each blank with an appropriate **verb** or **adjective**.

A long time ago, near a wide river and a quiet forest, there was a young fisherman living alone in a small wooden house. Every morning, he _____ early and _____ to the river with his fishing net. Although the village was _____, he often felt _____ and longed for adventure.

One afternoon, while he _____ by the river, he _____ a strange sound coming from the forest. At first, he felt _____ and tried to ignore it. However, the sound grew _____, and his curiosity became _____ than his fear. Slowly, he _____ toward the trees and _____ to the sound carefully.

Behind a large rock, he _____ a wounded bird. The bird looked _____ and seemed _____. The fisherman felt sympathy and decided to help. Gently, he _____ the bird in his hands and _____ to his house. That evening, he _____ the bird some water and _____ a soft place for it to rest.

Writing Activity 5

Work in pairs or small groups. Write a paragraph to continue the story.

Your paragraph should include:

- *Actions (what the character does)*
- *States and emotions (how the character feels)*

[illegible]

Writing Activity 6

Look at the example sentences from Reading Text 2. Use them as models to create your own sentences. Then, share your sentences with a partner or in a small group.

Original	We were supposed to be celebrating , but instead I wanted to commiserate .
Example 1	We were supposed to <u>be having a party at my house</u> , but instead I <u>was lying in a hospital bed</u> .
Example 2	We were supposed to <u>enjoy the weekend in Khao Yai</u> , but instead I <u>had to stay at home and take care of my dog</u> .
Your sentence	We were supposed to _____, but instead I _____.

Original	At the end of his struggle with an addiction that nearly cost him his family , he concluded that “ life isn’t a support system for art. It’s the other way around. ”
Your sentence	At the end of his struggle with _____, he concluded that “_____.”

Original	I had finally done it. I had written a book . And I was proud .
Your sentence	I had finally done it. I had _____. And I was _____.

Original	Visiting the local Barnes & Noble , I failed to find a single copy of my book on the shelves .
Your sentence	Visiting _____, I failed to _____.

Original	After walking around, greeting and thanking everyone , I reached for a cupcake and saw a small white envelope .
Your sentence	After _____, I _____ and _____.

Writing Activity 7

Fill in each blank with a clause to complete the story. Then, exchange your story with a partner and check whether:

1. each clause forms a complete sentence, and
2. the verbs are in the appropriate tense.



Before she reached the top of the stairs, the door creaked open by itself. Mara froze and held her breath as the house had suddenly gone silent. **While** _____, a cold wind moved through the hallway. She stepped inside and stopped suddenly **when** _____. Mara wanted to scream, but she stayed silent **since** _____. **After** _____, the lights flickered and went out. She felt her way along the wall while her eyes slowly adjusted to the darkness. She remembered the stories people told about this place. She whispered a prayer **because** _____. **As** _____, a shadow appeared at the end of the corridor. Mara backed away, but she did not run **because** _____. **Before** _____, she realized she was not alone.

COMMUNICATION ACTIVITY

Communication Activity 1



Listen to the short dialogues between a man and a woman. Choose a phrase from the table below to complete the sentences about how they feel.

Linking verb	Emotion adjective	Noun / Clause
be feel seem get	curious about excited about nervous about worried about confused by surprised by proud of	+ noun or -ing verb (e.g., <i>missing the bus</i>)
	annoyed because embarrassed because disappointed because relieved that sad that	+ clause (e.g., <i>the woman kept borrowing his headphones</i>)

Example 1: The woman seemed worried about missing the bus.

Example 2: The man was annoyed because the woman kept borrowing his headphones.

- The man _____.
- They _____.
- The woman _____.
- The man _____.
- The woman _____.
- The man _____.
- The woman _____.
- The man _____.
- The woman _____.
- They _____.

Communication Activity 2

Task 1: You will hear the following words in the video below. Classify each word into the correct word class. Some may belong to more than one category.

fall apart	matter	count on	go after
disadvantaged	turn out	quick fix	track
hindsight	achieve	isolated	satisfied
decline	drop out of	socially connected	

Noun	Adjective	Verb	Phrasal verb

Task 2: Use the words in Task 1 to fill in the blanks.

When Mia entered her sophomore year of university, she promised herself she wouldn't let her motivation (1) _____. She reminded herself that her goals really (2) _____, and she wanted to (3) _____ them with confidence.

Her grandfather, an energetic octogenarian, reminded her often that there is no (4) _____ for hard work. He said life's challenges usually unfold slowly, and the results may not (5) _____ the way you originally expected. Still, he always told her she could (6) _____ him whenever she felt overwhelmed. Mia admired how he had overcome alcoholism and built a stable life despite coming from a (7) _____ background. In (8) _____, she realized how impressive it was that he managed to (9) _____ so much despite the obstacles he faced.

Meanwhile, Mia noticed that some classmates were beginning to (10) _____ their programs, while others became more (11) _____ after losing touch with friends. She made an effort to stay (12) _____ because she understood how important community was for mental health. As the semester progressed, her energy didn't fade, and she continued to keep (13) _____ of her progress. Although grades sometimes showed a small (14) _____, she still felt (15) _____ with her overall improvement.

Task 3A: Watch the first half (0.00 – 5.44) of the video “What Makes a Good Life? Lessons from the Longest Study on Happiness” and fill in the information to complete the sentences below.



[Robert Waldinger: What makes a good life? Lessons from the longest study on happiness / TED Talk](#)

Many millennials reported that their major life goals were _____
and _____.

Asking people to recall their past experiences might not provide accurate information
because _____.

Long-term studies of people's lives are rare because:

3.1 _____

3.2 _____

or 3.3 _____.

The Harvard Study of Adult Development has tracked the lives of two groups of
adults, including those who were _____ and those who were

Every two years, the researchers of the study gathered information from the
participants by _____, _____, etc.

Task 3B: Watch the second half (5.44 – 12.37) of the video about the results of the study. Then complete the sentences below with the correct information.

The three major lessons the researchers have learned from the study are:

_____ and

_____.

The speaker suggests several ways of leaning into relationships, including:

7.1 _____

7.2 _____

7.3 _____

Communication Activity 3

Look at the questions in the first column of the table. For each question, think of possible follow-up questions. The first question has already been done for you. Then, move around the classroom, ask people the questions, and record their answers.

Main questions	Possible follow-up questions
What do you do to relax? Answers: • _____ • _____ • _____	• How does _____ help you relax? • How often do you get to _____? • Who do you usually _____ with?
What makes you want to wake up in the morning? Answers: • _____ • _____ • _____	

Main questions	Possible follow-up questions
What interests you about university life? Answers: • _____ • _____ • _____	
What excites you the most when travelling? Answers: • _____ • _____ • _____	
How do you feel about completing high school? Answers: • _____ • _____ • _____	
How have you found your first semester at university so far? Answers: • _____ • _____ • _____	
[Your own question] Answers: • _____ • _____ • _____	

Communication Activity 4

Watch the TED talk “The brain-changing benefits of exercise” by Wendy Suzuki and answer the questions below.



Wendy Suzuki: The brain-changing benefits of exercise | TED Talk

- 1. Why do you think Professor Wendy Suzuki shows a picture of the brain?

- 2. What are the **THREE** immediate effects of a single workout on the brain?

- 3. Complete the table about brain functions.

Brain areas	Functions
the prefrontal cortex	
the temporal lobe	

- 4. What personal experience led the speaker to start exercising?

- 5. What are the **THREE** reasons people should exercise for their brain?

- 6. What is the speaker’s current research goal?

Communication Activity 5 [5%]

Work in groups of 3–4 students. Each group will be assigned different roles that represent common lifestyles among students.

Task Preparation:

1. Discuss and identify practical suggestions for how people in these roles can:
 - a. Stay physically and mentally healthy
 - b. Live longer
 - c. Balance work, study, and personal life
2. You should use the information from reading passages and videos in Unit 1 to help support your ideas. You may also use other sources if needed.
3. Make sure your suggestions are appropriate for the lifestyle of the role assigned to your group by the teacher. Consider time constraints, responsibilities, and environment.

Presentation (5%):

1. **Assigned role:** Describe the **lifestyle** and main **challenges** of the role.
2. **Key health suggestions:** Provide **THREE health tips** with **detailed explanations** for each tip.
3. Prepare a 2–3 minute group presentation (5%) to share your ideas with the class.

Here're the roles

1. Student Athlete
2. Part-Time Worker
3. Remote Learner
4. Commuter Student
5. Exchange Student
6. Volunteer/Community Service Student
7. Student Entrepreneur
8. Student Gamer
9. Student Influencer
10. Student in Performing Arts

Please refer to the scoring rubric in Appendix A.

UNIT 1 GLOSSARY

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
addiction	noun	a strong desire to do or have something regularly	His struggle with an addiction nearly cost him his family.
approach	verb	to begin to deal with a situation or problem in a particular way or with a particular attitude	“Life isn’t a support system for art. It’s the other way around.” The same can be said for how we approach our own work.
assign	verb	to give a particular time, value, place, etc. to something	I wrote a list of dreams and goals with dates assigned to each.
baseline	noun	a standard measurement or fact used for comparison (especially in medicine or science)	For men, the gain is similar, though starting from a lower baseline .
centenarian	noun	someone who is 100 years old or older	Centenarians studied across Asia, Europe, and Australia tend to consume less salt, drink little alcohol, and maintain a balanced, diverse diet.
chronic disease	noun	a disease that lasts a long time	People who consistently follow Mediterranean-style eating patterns through middle age are far more likely to reach 70 free of chronic disease , physically active, and mentally sharp.
dominate	verb	to be larger and more noticeable than others	It was “the sort of massive oak slab that would dominate a room,” something he had always dreamed of.
embarrassed	adjective	feeling uncomfortable or worried about what others think	Embarrassed and feeling sorry for myself, I left the house to run some errands and to get a drink with a friend.
excess	adjective	more than is needed	The key is not only what you eat but what you avoid. Reducing sugary foods, processed meats, and excess salt is critical.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
impair	verb	to damage or reduce the quality of something	Extreme calorie restriction, often promoted as a longevity strategy, works in animals but remains unproven in humans and may impair quality of life.
indulge in	verb	to allow yourself to enjoy something, often something unhealthy	Those who indulge in fatty, salty, and meaty diets rarely age well.
intake	noun	the amount of food or drink taken into the body	High salt intake is a major contributor to cardiovascular disease, the leading cause of death worldwide.
intervention	noun	the act of becoming involved in a situation in order to change what happens	Due to an intervention by his family, King got sober and got rid of that huge desk.
life expectancy	noun	the length of time that a person or animal is expected to live	In contrast, diets rich in whole grains, fruits, vegetables, nuts, beans, and fish can dramatically extend life expectancy .
longevity	noun	Long life or the amount of time that someone or something lives	Extreme calorie restriction, often promoted as a longevity strategy, works in animals but remains unproven in humans and may impair quality of life.
optimal	adjective	the best or most effective	Modelling studies suggest that a 20-year-old woman in the United States who adopts an optimal diet could increase her life expectancy from 80 to 89 years.
premature	adjective	happening too early before the natural or proper time	Researchers analysing global health data have found that —high in refined grains, added sugars, red and processed meats, and dairy—are linked to millions of premature deaths each year.
realize	verb	to achieve something planned or hoped for	A year later, the goal was realized .
root for [someone]	verb	to support someone and hope they succeed (e.g., in a competition, test, or difficult situation)	She who had pledged to be my biggest fan had been rooting for me from the very beginning.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
unproven	adjective	not proven or tested	Extreme calorie restriction, often promoted as a longevity strategy, works in animals but remains unproven in humans and may impair quality of life.

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UNIT 2

SUSTAINABLE CITIES & COMMUNITIES

PAGE 35

11 SUSTAINABLE CITIES
AND COMMUNITIES



A Tale of Two Cities

Bangkok and Copenhagen (the capital city of Denmark) both have vibrant cultural scenes, strong connections to waterways, and global reputations for food. Both cities are also major tourist hubs with a wide range of significant cultural attractions.

READING

Reading Text 1

Warm-up activity

Work in a group of 3-4. Discuss the following questions.

A **walking street** is a street where people can walk, shop, dine, and enjoy entertainment safely. These streets are often located in busy city centres and may also operate as temporary markets. They are characterized by vibrant atmospheres where many people come together to enjoy a variety of activities, such as food vendors, shops, bars, and live performances.



1. Why are walking streets popular?
2. The definition above describes a walking street as having a vibrant atmosphere. Can you guess the meaning of the word 'vibrant'?

vibrant =

3. Can you think of some popular walking streets in Bangkok? What makes them popular? What do you like or dislike about these popular walking streets?



[1] According to UN Tourism, walking tourism, a form of travel where the primary mode of exploration and discovery is by foot, enables tourists to better engage with the local population, as well as with nature and culture. The trend also meets the growing demand for outdoor activities. However, supply in many areas has not always been able to meet this growing demand due to limited access to certain areas, a lack of public transport, or investment being focused on specific locations.

WALKING TOURISM

[2] "During a trip, we often **casually** say 'Where shall we go for a walk?' after a meal or before heading back to the hotel," said Somradee Chitchong, deputy governor at the Tourism Authority of Thailand (TAT). Somradee explained that this aspect of Thai culture has contributed to the development of "walking streets" in major cities and towns across Thailand, which are typically filled with shops serving tourists. Historical sites such as temples, ancient cities and national parks are key attractions that showcase local culture and hidden charms. Popular walking streets in Bangkok include Yaowarat and Ban Tad Thong, which offer an array of food experiences. Upcountry, not far from the **iconic** temple of Wat Phra Tat Choeng Chum in Sakon Nakhon province, Pha Kram Road -- also known as "Indigo Street" or Kram Walking Street -- is a walking street dedicated to selling locally-made products made from indigo fabrics. Local people also participate by offering activities such as small performances in galleries and coffee houses, as well as live music shows, designed to keep visitors to the old city entertained. These activities aim to encourage visitors, particularly young people, to return.

URBAN CHALLENGES

[3] "Despite growing demand for walking tourism in Thailand, challenges remain, particularly regarding safety," said Somradee. In many parts of the country, walking streets have not been designed to accommodate all groups of visitors, as it is still quite common to find **impediments** on the roads and pavements that slow traffic or create problems for pedestrians, especially wheelchair users. In some cases, motorcycles **illegally** share paths with pedestrians, while street cleanliness in provincial areas is sometimes poorly managed, according to Somradee. Another issue is the difficulty in encouraging repeat visits due to limited public transport options or insufficient parking facilities.



ROOM TO GROW

[4] "In most parts of the capital, it certainly cannot be described as a walkable city," said Panit Pujinda, a lecturer at Chulalongkorn University's Faculty of Architecture. As the city developed and grew, people had to **commute** further distances. And because people have to travel longer and further, their travel expenses increase. In addition, public transport services often operate mainly along major roads, making vehicle ownership a necessity. Panit noted that one of the most critical issues in Thailand is the **shortage** of road space compared with global standards. Road space is very **scarce**, accounting for only 7% of Bangkok's total city area -- far below the global average of 15–20%, while the road area in major cities such as Tokyo and New York is expansive standing at 20% and 28%, respectively. Even if Bangkok were to build more roads in an effort to expand capacity, this may not help **alleviate** the traffic problem, as many people in the capital still prefer using private vehicles to **navigate** the city conveniently. The capital's traffic means walking along the pavement doesn't necessarily feel **secure** and pedestrians still need to keep their eyes open at all times when they cross a busy road or share space with motorcyclists.

Reading Activity

Answer the following questions based on Reading Text 1.

1. Where are the TWO famous walking streets in Bangkok mentioned in Paragraph [2]?

2. What can you buy at Pha Kram Road (Kram Walking Street)?

3. Name two activities that tourists can enjoy on the Kram Walking Street.

4. Which of the following is NOT a challenge of walking tourism mentioned in Paragraph [3]?
 - A) Motorcycles sharing paths with pedestrians
 - B) Improperly managed walking streets in upcountry
 - C) Traffic congestion as people arrive and depart
 - D) A lack of or insufficient transportation system
5. In the last paragraph of the text, which problem was mentioned by the author?
 - A) Air pollution
 - B) High transportation cost
 - C) Motorcycle accidents
 - D) Insufficient number of roads

Reading Skills: Guessing Meaning from Context

What are context clues?

In reading, context clues are words or phrases in a sentence or paragraph that help you understand the meaning of a difficult or unfamiliar word. Instead of guessing, you can use the surrounding text to help you understand the meaning. Context clues support reading comprehension and help you stay focused while reading. The following is a quick context clue example:

A walking street is a street where people can walk, shop, dine, and be entertained safely. These streets are often found in busy city centres and can be temporary markets. They are characterized by vibrant atmospheres where many people come together to enjoy a variety of activities, such as food vendors, shops, bars, and live performances.

What do you think “vibrant” means in this context?

From the text, we can see that walking streets are located in busy city centres where many people gather to enjoy food and shopping. This suggests that “vibrant” describes places that are lively and full of activity.

As you can see, context clues can help you:

- understand difficult vocabulary
- improve reading comprehension
- build confidence in reading
- learn new words more effectively

However, it is still important to confirm meanings using a dictionary when needed.

In this unit, we are going to look at four common types of context clues: ***synonyms***, ***antonyms***, ***appositives***, and ***examples***.

1. Synonyms

As you come across unknown words while reading, look for synonyms. A **synonym** is a word or phrase that has a similar meaning to another word.

Look at the following example:

As the city developed and grew, people had to commute longer distances. As people had to travel farther, their travel expenses increased.

Let's suppose you don't know the meaning of the word "commute." In the first sentence, we see that "*commute*" is a verb used with the subject "*people*." In the second sentence, the idea is restated using different words. Instead of saying "*people had to commute*," it says "*people had to travel*." This suggests that "*travel*" is being used to explain the meaning of "*commute*."

We can confirm our guess by replacing "*commute*" with "*travel*" and checking whether the meaning stays the same. If the meaning does not change, then our guess is likely correct.

2. Antonyms

Antonyms are words that have opposite meanings of a word. One way to identify an antonym is by looking for contrast words such as **but**, **however**, **though**, **although**, **unlike**, **whereas**, and **despite**. These words signal that an opposite idea or meaning is coming.

Look at the following example. See if the contrast word "**while**" helps you understand the meaning of "**scarce**."

Road space is very **scarce**, accounting for only 7% of Bangkok's total city area -- far below the global average of 15–20%, **while** the road area in major cities such as Tokyo and New York is **expansive** standing at 20% and 28%, respectively.

In this sentence, the writer is comparing road space in Bangkok with that of other major cities such as Tokyo and New York. The text mentions road area in major cities being "**expansive**" covering 20% and 28% of the total area. From this, we can infer that road areas in cities like Tokyo and New York are **vast**. The contrast word "**while**" helps signal the opposite idea. If we look back at the word "**scarce**," which is the opposite of vast or expansive, we can guess that "**scarce**" probably means **limited**.

3. Appositives

An **appositive** is a noun or noun phrase that comes after another noun and gives more information or a definition about it. The second noun phrase explains or identifies the first noun.

In the example below, the writer uses an appositive to explain the concept of “walking tourism.”

Walking tourism, *a form of travel where the primary mode of exploration and discovery is by foot*, enables tourists to better engage with the local population, as well as with nature and culture.

This sentence uses a comma to introduce the appositive “*a form of travel where the primary mode of exploration and discovery is by foot*” which provides a definition of the term “*walking tourism*.” Appositives usually have a comma before and after them.

4. Examples

Examples can help explain the meaning of a word or idea. In English, some common ways to introduce examples are with the phrases *for example*, *for instance*, *such as*, and *like*.

Look at the following example to see how examples can help you understand the meaning of a historical site.

Historical sites such as temples, ancient cities and national parks are key attractions that showcase local culture and hidden charms.

So, what might “*historical site*” mean? The examples provided -- *such as temples, ancient cities, and national parks*-- can help us infer its meaning. A “*historical site*” is a place with important historical or cultural value.

Exercise: Guessing Meaning from Context

Read the following excerpts. Decide on the type of context clue that can be used to determine the meaning of the word in bold. Then write its meaning.

NOTE: Some sentences may use **more than one type** of context clue.

1. The small coastal town was known for its **secluded** beaches. Unlike the crowded resorts nearby, these stretches of sand were quiet, hidden by cliffs, and visited only by a few adventurous travellers.

Type of context clue	Meaning

2. During her backpacking trip through Europe, Lina followed a very **frugal** lifestyle. She cooked her own meals, stayed in hostels, and avoided unnecessary expenses so she could travel longer.

Type of context clue	Meaning

3. Singapore’s **infrastructure**, the country’s basic systems and services, make navigating the unfamiliar streets surprisingly easy for travellers.

Type of context clue	Meaning

4. The mountain pass was nearly **impassable**, blocked and unusable after days of heavy snowfall.

Type of context clue	Meaning

5. Her travel style was **spontaneous**. She booked same-day trains, changed destinations without warning, and followed recommendations from strangers she met along the way.

Type of context clue	Meaning

READING

Reading Text 2

Warm-up activity

Watch the following video about Denmark. Use the information to complete the notes below. You will watch the video TWICE. Write ONLY ONE WORD for each blank.



Location

- Denmark is located in northern (1) _____.
- It is part of a group of countries called Scandinavia which includes (2) _____ and (3) _____.

Capital city

- The capital city of Denmark is (4) _____.

Denmark: The happiest country in the world

- Danish people ride their (5) _____ to work, school and shopping malls.

Denmark's ruling system

- Denmark has a queen and a prime minister.

Language

- Danish people speak Danish and (6) _____.

Weather

- The weather in Denmark can be (7) _____ and (8) _____.
- People enjoy spending time outdoors in (9) _____.
 - o Outdoor activities that people enjoy include (10) _____,
- (11) _____ and having a picnic in parks.

Popular places in Denmark

- Little Mermaid statue in Copenhagen
- (12) _____

Popular Danish food

- Open-faced sandwiches
- Meatballs
- Danish pastries

Environment

- Denmark uses (13) _____ power and other clean energy to help protect the earth.
- Denmark (14) _____ and protects nature with many parks and (15) _____ spaces.

Now that we’ve learned about Denmark, work in a group of 3-4 to compare Bangkok and Copenhagen. What are the similarities and differences? Share your ideas with your class.

Similarities	Differences
• Cultural centres (museums, palaces, temples)	• Climate



HOW COPENHAGEN IS LEADING THE WORLD IN SUSTAINABILITY

By Christopher Marco (Guest Contributor)

[1] **Strolling** through the historic streets of Copenhagen, visitors may find crowds of cheerful cyclists on their daily commutes or residents enjoying a breath of fresh air at one of the city's picturesque parks. Recent reports call Copenhagen one of the 'coolest' cities to visit in the world, and since 2014 the city has earned countless accolades, such as being named the European Green Capital by the EU and the "Most Livable City" by Monocle. These awards have been earned for success in a number of sustainable development initiatives, ranging from advanced air quality measurement systems, to the implementation of smart street lights, and the promotion of alternative forms of transportation like cycling.

[2] Copenhagen is especially remarkable for its commitment to clean air through 'Project Air View,' a unique partnership between Google, university researchers, and the local government. From 2018 to 2019, a Google Street View car, equipped with air quality measurement technology developed by researchers at Utrecht University, rolled through the streets of Copenhagen to collect information on pollutants in the city's air.

[3] In order to cut greenhouse gas emissions and improve air quality, leaders in Copenhagen found a solution through the development of a sustainable system of transportation. The city is home to an advanced smart mobility network, which combines cutting-edge technology with sustainable development goals to promote a cleaner, healthier lifestyle for residents. The core of the sustainable transit movement in Copenhagen is cycling. The city is home to more bicycles than automobiles, which has **compelled** leaders to adopt cycling as a sustainable transportation solution.

[4] Since the early 2000s, city officials have worked to support cycling through a number of initiatives that have expanded bike lanes, established a bike-sharing program, and made cycling safer. Copenhagen stands out internationally for its 'Green Wave' for bicyclists, a program which Dr. Rumia Begum says, “**coordinates** traffic lights so that cyclists who maintain a 20 km/h travelling speed only see green traffic lights all the way along their commute.” Through increased safety measures and incentives which promote cycling over the use of cars, bikes have become the primary mode of transportation in Copenhagen, and a **staple** in the city's sustainable development program.

[5] Another staple of Copenhagen's sustainability efforts is energy efficiency. The city has addressed energy concerns by turning towards centralized biomass heating, solar and wind power, and smart street lighting to greatly reduce its energy consumption and limit carbon emissions. More than 98% of households throughout the city are connected to a centralized heating system. Over 22,000 smart streetlights have been installed throughout Copenhagen, which have the ability to increase or decrease luminosity as cyclists and pedestrians pass by. Since their installation these streetlights have **slashed** the bill for lighting by 76%.



[6] In today's society, we find ourselves faced with the daunting task of finding balance between meeting human needs and reversing years of environmental **strain**. While there may not be a one-size-fits-all solution, current efforts in cities like Copenhagen are establishing best practices which can be applied in urban centres across the globe. There is no reason to wait, as we see through the case of Copenhagen that the key to achieving sustainability in urban cities may be as easy as riding a bike.

Reading Activity

Answer the following questions based on Reading text 2.

1. What is the purpose of the text?
 - A) To provide travel tips for visitors who want to travel to Copenhagen
 - B) To explain how Copenhagen has become a leader in sustainability
 - C) To list the popular mode of transportation for people in Copenhagen
 - D) To discuss the solutions adopted by people in Copenhagen to tackle pollution
2. What is the common way of travelling for people in Denmark?
 - A) Train
 - B) Taxi
 - C) Bicycle
 - D) Private car
3. Which of the following words is CLOSEST in meaning to the word “accolades” in Paragraph (1)?
 - A) awards
 - B) issues
 - C) reputations
 - D) promotions
4. Using context clues, guess the meaning of the word “initiatives” in Paragraph (1)?

Type of context clue:	
Meaning of the word:	

5. According to Paragraph (2), “Project Air View” is a collaboration between all of the following EXCEPT _____.
 - A) Google
 - B) researchers/ universities
 - C) local businesses
 - D) local government

6. Choose the best word to replace the underlined word in the following sentence.

The city is home to an advanced smart mobility network, which combines cutting-edge technology with sustainable development goals to promote a cleaner, healthier lifestyle for residents.

- A) clear
- B) sharp
- C) modern
- D) difficult

7. All of the following words can be used to replace the underlined word in the sentence below EXCEPT _____.

The core of the sustainable transit movement in Copenhagen is cycling. The city is home to more bicycles than automobiles, which has compelled leaders to adopt cycling as a sustainable transportation solution.

- A) driven
- B) forced
- C) required
- D) arranged

8. In the following sentence, the writer uses a synonym to replace the underlined word in the first part of the sentence. Underline the synonym used.

Bikes have become the primary mode of transportation in Copenhagen, and a staple in the city's sustainable development program.

9. According to Paragraph (5), the local government in Copenhagen adopts the following measures to reduce energy consumption and limit carbon emissions EXCEPT _____.

- A) biomass heating
- B) hydropower
- C) smart street lighting
- D) solar and wind power

10. The following text is the summary of Paragraph (5). Fill in the blanks with the correct information below.

- A) more than 20,000
- B) well over three quarters
- C) just over a half
- D) almost 100%

(1) _____ of households throughout the city have a centralized heating system installed. Copenhagen has also installed (2) _____ smart streetlights, which can increase or decrease the light as cyclists or pedestrians pass by. (3) _____ of electricity bills have decreased since the installation of these streetlights.

Discussion

Sustainable practices are actions and policies that meet present human needs without compromising the ability of future generations to meet their own needs, balancing environmental, social, and economic factors. This involves using resources efficiently, protecting ecosystems, and ensuring long-term well-being for both people and the planet.

Work in groups of 3-4. Discuss some of the sustainable practices you have learned from reading about Copenhagen.



In your opinion, which of these practices can be used to make Bangkok a more sustainable city?

Prepare to share your ideas with the class.

LANGUAGE FOCUS

Describing Places

Describing places in English involves using specific **adjectives** to highlight atmosphere, appearance, and size, such as *bustling*, *picturesque*, *cosmopolitan*, and *secluded*. This form of writing also requires specific **prepositions of place**—such as *in*, *on*, *at*, *next to*, *under*, *behind*, and *between*—to indicate where objects or locations are positioned relative to others.

When a text creates a clear and vivid sensory impression in the reader's mind, it not only makes the writing more interesting to read, but also helps the reader understand the text more clearly and recognize the author's intention. In this unit, we will focus on the two grammar points that we can use to describe a place in English: ***adjectives and prepositions of place***.

Using adjectives to describe places

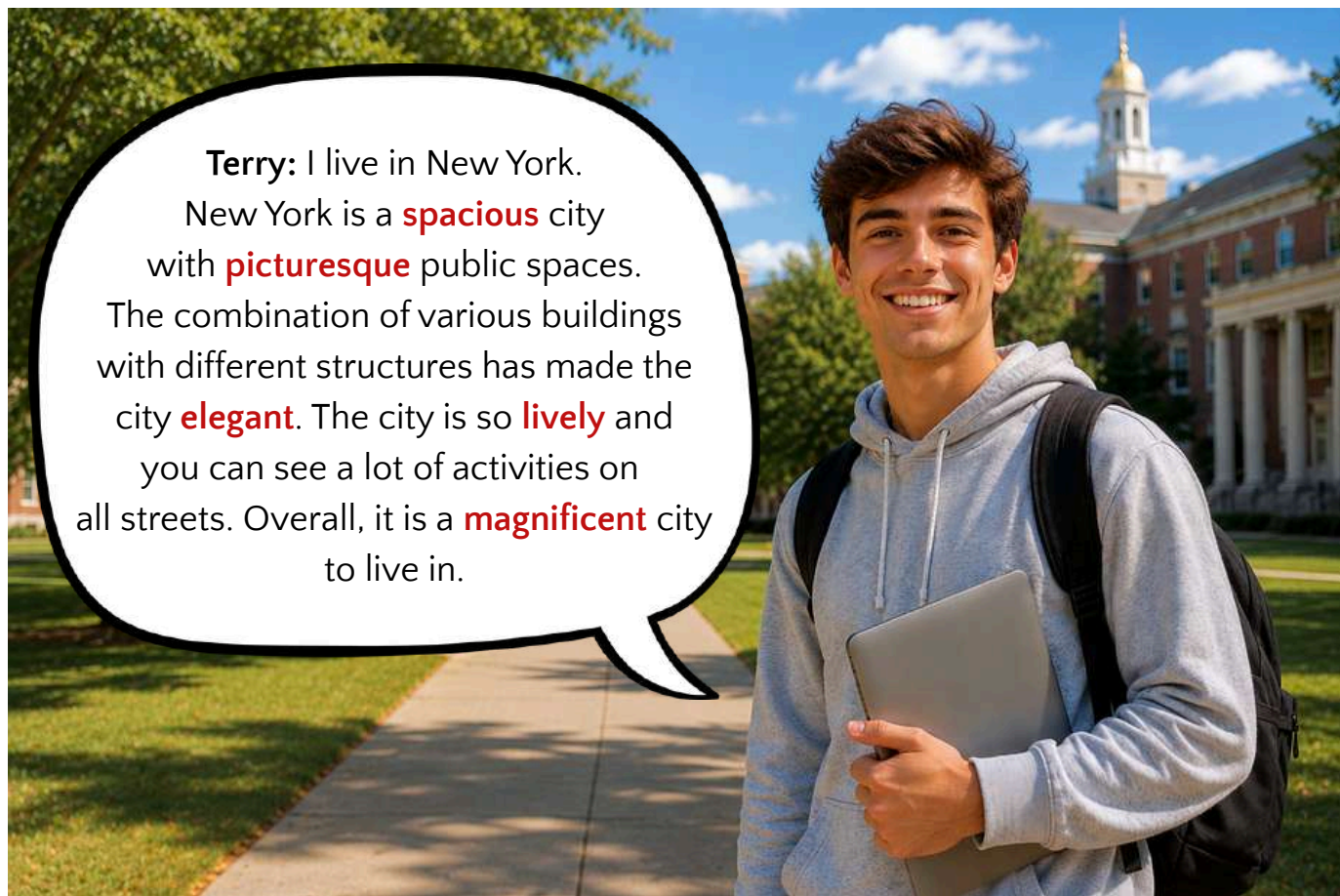
When you meet a new person, you may talk about your hometown or your favourite places. To describe places in English using adjectives and adverbs, first we should consider what information is important when describing a place.

When describing a place in English, we often mention the following:

- Entertainment facilities
- Health facilities (such as hospitals and clinics)
- Public transportation facilities (such as buses and subways)
- Public spaces (such as parks, shopping malls, and museums)
- Public utilities

Look at the following text below which describes the city of New York.

Example: New York is a big city with good **public transportation**, including buses and subways. In this city, people have access to many **entertainment facilities**, **health facilities**, and **public spaces** such as **parks**, and **plazas**.



Adjectives can be used to describe all these facilities to help the reader visualise the place being described. Look at how this student, Terry, uses adjectives to describe New York. You can see that by adding these adjectives into his description, the images of the place become clearer to the readers.

There are many adjectives that we can use to describe places. Some have positive meanings while others have negative meanings.

Exercise 1

*Look at the list of adjectives below. Write **P** for positive meaning and **N** for negative meaning.*

spacious / P	packed	magnificent	cosy	run-down
deserted	peaceful	lively	bustling	vibrant

Exercise 2

Practice using these adjectives to describe the cities of Bangkok and Copenhagen.

1. Bangkok is a _____ city with traffic noise and busy shopping areas.
2. Even popular landmarks in Copenhagen, like the Little Mermaid, can become empty and _____ during the winter compared to the busy summer months.
3. Krabi is a _____ town in Thailand where tourists can enjoy a cool gentle breeze and a quiet walk on the beach.
4. In winter, people in Copenhagen like to create a _____ atmosphere in their homes by lighting candles, playing relaxing music, and preparing warm beverages like hot cocoa.
5. Strøget (pronounced STROY-ed in English), one of Copenhagen's longest shopping streets, can be _____ during Christmas when large crowds come out to shop for presents.



Bustling vs Vibrant

"Bustling" emphasizes busy activity and noise, while **"vibrant"** focuses on energy, life, and enthusiasm. A place can be **bustling** when it is full of people and activity, but it is described as **vibrant** when it also feels energetic, colourful, and lively. For example, a bustling market is busy and crowded, while a vibrant city feels lively, dynamic, and full of culture.



Prepositions of place: *in*, *on*, *at*

Prepositions of place describe where something is located. We use the prepositions *in*, *on* and *at* when describing a place to show position. Look at the examples below.

- I am **in** the kitchen.
- My dog likes sleeping **on** the sofa.
- The children eat lunch **at** school.

In

We use **in** to talk about something that is inside a larger space, such as a box, a house, a city or a country.

- *The clothes are **in** the wardrobe.*
- *The children are playing **in** the park.*
- *There's a bookshop **in** the shopping centre.*
- *My grandmother was born **in** Sweden.*

We also use **in** with other physical locations such as:

in the world

in water / the sea / a river / a lake / a pool

in the mountains / the countryside / a valley / the forest

in a car / a taxi

On

We use **on** to talk about location on a surface.

- *The books are **on** the desk.*
- *There are pictures **on** the wall.*
- *She likes to sit **on** the floor.*

We also use **on** for some types of public transport.

*He's **on** the bus now.*

*You can't make phone calls **on** a plane.*

*There are many empty seats **on** the train.*

*She read a book while she was **on** the train.*

We also use **on** for lines (including rivers, borders, streets, etc.) and islands.

- *London is **on** the River Thames.*
- *The Pyrenees are **on** the border of Spain and France.*
- *There's a market **on** James Street.*
- *I'd love to live **on** the Isle of Wight.*

At

We use **at** for specific points or locations, especially when we are talking about a place for a specific activity.

- *I'm **at** work.*
- *She's working **at** home today.*
- *The children are **at** school.*
- *See you **at** the train station!*
- *They are **at** the supermarket.*
- *I met him **at** a party.*

We also use **at** for addresses or exact positions.

- *I live **at** 15 Craig Street.*
- *She's sitting **at** a desk.*
- *He's waiting **at** the entrance.*
- *Please sit **at** the back of the room.*

Exercise 3

*Read the passage and complete each blank with **in**, **on**, or **at**.*

The city of York is located (1) _____ the northern part of the UK. It is well known for its historic buildings and lively atmosphere. (2) _____ the centre of the city, there is a large public square with cafés and shops. Many of the cafés are (3) _____ the main street, while others are hidden (4) _____ small side roads.

One of the most popular landmarks is the art museum (5) _____ Tower Street. Visitors can see modern sculptures displayed (6) _____ the entrance and famous paintings hanging (7) _____ the walls inside. The museum café is (8) _____ the top floor and offers a great view of the river flowing (9) _____ the city.

People often meet (10) _____ the square in the evenings, especially (11) _____ weekends. Street musicians usually perform (12) _____ the corner near the fountain, creating a lively atmosphere.

WRITING

Descriptive Writing

The primary purpose of descriptive writing is to describe a person, place or thing in a way that creates a clear image in the reader's mind. Effective descriptive writing captures details by appealing to the five senses: sight, sound, smell, taste and touch.

In this unit, you will learn how to write a **travel article** which is a form of descriptive writing.

Structure of a Travel Article

A travel article is typically organized as follows:

1. Begin with a **headline** that will hook your readers' attention.

For example:

A Fun-filled Day at Victoria Falls

2. Then start your writing with a **main idea** – a sentence that summarises what the article will be about.
3. Write sentences to describe key features of the place (e.g., attractions, culture, food, and atmosphere). For example, you can write about examples of outdoor activities that travellers can enjoy at Victoria Falls.
4. End with a concluding sentence that provides an opinion, a suggestion or a summary of your writing.

What is a travel article?

Travel writing can be defined as writing that describes places, peoples and cultures. Types of travel writing literature include:

Travel guides – factual information on places, people, culture, customs, languages and history, with recommendations and guidance provided to inspire and inform other travellers.

Travelogues – personal experiences of travelling, with descriptions of places, customs and people. Travelogues are often written by authors during their travels.

Travel articles can be found in many daily newspapers and popular magazines, in specialist travel publications, or online in blogs and on websites.

Writing Activity 1

Read the following travel article about Victoria Falls. Use the information from the text to answer the questions that follow.

A Fun-filled Day at Victoria Falls

Victoria Falls offers many easy and exciting outdoor activities for travellers to enjoy. Visitors can walk along simple rainforest paths to see the powerful waterfalls up close and feel the cool mist in the air. Boat trips on the Zambezi River are popular, where travellers can relax, watch the sunset, and see animals like elephants and hippos near the water. For those who enjoy adventure, there are fun activities such as rafting on the river



or taking a short helicopter ride to view the falls from above. With its beautiful scenery and wide range of activities, Victoria Falls is a great place to enjoy the outdoors.

1. Underline the main idea of the travel article.
2. Check (✓) all the activities that travellers can enjoy at Victoria Falls.

☐ A walk in a rainforest	☐ Dining on the mountain cliff
☐ A picnic by the river	☐ Animal watching
☐ A cruise along a river	☐ Rafting
☐ Swimming in a natural pool	☐ A helicopter ride
3. Underline the concluding sentence. Check (✓) the technique that the writer uses to end the article.

☐ A summary
☐ An opinion
☐ A suggestion
4. Who might be interested in reading this travel article?

Writing Quiz 1 [5%]

Task Objectives:

- To use prepositions of place correctly
- To use adjectives to describe places appropriately
- To write using a variety of sentence types

***Remark:** You are allowed to do an Internet search, but the use of digital writing tools is **NOT** allowed.

You and your team (2–3 people) have been assigned by the Tourism Authority of Thailand to write a travel article promoting a Thailand's walking street.

- Choose **ONE** walking street in Thailand that you want to promote.
- Include **THREE** activities that foreign tourists can enjoy in your chosen walking street.
- First, begin with a headline that you think will attract your readers' attention.
- Then write a main idea (ONE sentence).
- Add supporting sentences to develop your main idea.
- End with a concluding sentence (a summary, an opinion or a suggestion).

Rubric:

Criteria	5	4	3	2	1
Use of Prepositions	Uses a wide range of prepositions of place accurately and naturally throughout the writing.	Uses several prepositions of place correctly with only minor errors.	Uses some basic prepositions of place correctly but with noticeable repetition or occasional errors	Uses very few prepositions of place and makes frequent errors.	Rarely or never uses correct prepositions of place.
Use of adjectives to describe places	Uses a wide range of appropriate adjectives that clearly describe the place and add detail.	Uses several relevant adjectives with only minor mistakes.	Uses some basic adjectives but descriptions are simple and repetitive.	Uses very few adjectives or uses them incorrectly at times.	Uses little or no adjectives; descriptions are unclear.
Variety of sentence types	Uses a strong variety of sentence structures (simple, compound, and/or complex) effectively; writing flows smoothly.	Uses more than one type of sentence with mostly correct structure	Uses mostly simple sentences with some attempts at variety.	Sentences are repetitive or sometimes incomplete.	Sentences are mostly incorrect, incomplete, or very difficult to understand.

COMMUNICATION ACTIVITY

Communication Activity [5%]

You work for the Bangkok Metropolitan Administration (BMA). Your team has been asked to discuss the happiness of people living in Bangkok.

- *Form a group of 3-4.*
- *Each member of your group finds at least TWO people from another group.*
- *Interview them based on the survey questions on page 61.*
- *Come back to your group and discuss the results.*
- *Present your interview results by reporting:*
 - *What your friends like most in Bangkok*
 - *Challenges living in Bangkok*
 - *How to make Bangkok a happier place*



IMPORTANT REMARK:

Your presentation should take 3-4 minutes and each member should contribute equally during the presentation.

Please refer to the scoring rubric in Appendix A.

Survey: Happiness of Living in Bangkok

Introduction: This survey aims to understand how people feel about living in Bangkok.

1. Overall, how happy are you living in Bangkok?

- ☐ Very happy
- ☐ Happy
- ☐ Neutral
- ☐ Unhappy
- ☐ Very unhappy

2. How satisfied are you with the following aspects of life in Bangkok?

(Scale: Very satisfied / Satisfied / Neutral / Dissatisfied / Very dissatisfied)

- Public transportation
- Air quality and environment
- Leisure and entertainment
- Other: _____

3. What do you like most about living in Bangkok?

(You may choose one or more than one or add your own idea.)

Examples:

- Job or education opportunities
- Food and culture
- Transportation access
- Entertainment and lifestyle
- Family and community

4. What is the biggest challenge of living in Bangkok?

(You may choose one or more than one or add your own idea.)

Examples:

- Traffic
- Cost of living
- Pollution
- Crowded spaces
- Work-life balance

5. What is one thing that would most improve happiness in Bangkok? How?

UNIT 2 GLOSSARY

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
alleviate	verb	to make a problem or difficulty less severe (e.g., pain)	Even if Bangkok were to build more roads in an effort to expand capacity, this may not help alleviate the traffic problem.
casually	adverb	in an informal or relaxed way	"During a trip, we often casually say 'Where shall we go for a walk?' after a meal or before heading back to the hotel,"
commute	verb	to travel regularly between home and work or school	As the city developed and grew, people had to commute further distances.
compel	verb	to force or strongly encourage someone to do something	The city is home to more bicycles than automobiles, which has compelled leaders to adopt cycling as a sustainable transportation solution.
coordinate	verb	to organize different parts to work together effectively as a whole	Copenhagen stands out internationally for its 'Green Wave' for bicyclists, a program which Dr. Rumia Begum says, " coordinates traffic lights so that cyclists who maintain a 20 km/h travelling speed only see green traffic lights all the way along their commute."
cutting-edge	adjective	very modern and using the latest technology	The city is home to an advanced smart mobility network, which combines cutting-edge technology with sustainable development goals to promote a cleaner, healthier lifestyle for residents.
iconic	adjective	very famous and widely recognized	Upcountry, not far from the iconic temple of Wat Phra Tat Choeng Chum in Sakon Nakhon province, Pha Kram Road -- also known as "Indigo Street" or Kram Walking Street -- is a walking street dedicated to selling locally-made products made from indigo fabrics.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
illegally	adverb	in a way that is against the law	In some cases, motorcycles illegally share paths with pedestrians, while street cleanliness in provincial areas is sometimes poorly managed, according to Somradee.
incentive	noun	something that motivates or encourages action	Through increased safety measures and incentives which promote cycling over the use of cars, bikes have become the primary mode of transportation in Copenhagen.
impediment	noun	something that makes progress, movement or achieving something difficult or impossible	In many parts of the country, walking streets have not been designed to accommodate all groups of visitors, as it is still quite common to find impediments on the roads and pavements that slow traffic or create problems for pedestrians.
navigate	verb	to find one's way around a place	Even if Bangkok were to build more roads in an effort to expand capacity, this may not help alleviate the traffic problem, as many people in the capital still prefer using private vehicles to navigate the city conveniently.
necessity	noun	something that is essential or required	In addition, public transport services often operate mainly along major roads, making vehicle ownership a necessity .
picturesque	adjective	visually attractive or charming in appearance	Strolling through the historic streets of Copenhagen, visitors may find crowds of cheerful cyclists on their daily commutes or residents enjoying a breath of fresh air at one of the city's picturesque parks.
scarce	adjective	limited or difficult to find or get	Road space is very scarce , accounting for only 7% of Bangkok's total city area – far below the global average of 15–20%, while the road area in major cities such as Tokyo and New York is expansive standing at 20% and 28%, respectively.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
secure	adjective	safe or free from danger or worry	The capital's traffic means walking along the pavement doesn't necessarily feel secure and pedestrians still need to keep their eyes open at all times when they cross a busy road or share space with motorcyclists.
shortage	noun	a situation in which there is not enough of something	Panit noted that one of the most critical issues in Thailand is the shortage of road space compared with global standards.
slash	verb	to reduce something greatly	Since their installation these streetlights have slashed the bill for lighting by 76%.
staple	noun	a main or important part of something used regularly	Through increased safety measures and incentives which promote cycling over the use of cars, bikes have become the primary mode of transportation in Copenhagen, and a staple in the city's sustainable development program.
strain	noun	pressure or stress on something that may cause damage	In today's society, we find ourselves faced with the daunting task of finding balance between meeting human needs and reversing years of environmental strain .
stroll	verb	to walk in a slow relaxed way	Strolling through the historic streets of Copenhagen, visitors may find crowds of cheerful cyclists on their daily commutes or residents enjoying a breath of fresh air at one of the city's picturesque parks.

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UNIT 3

INDUSTRY, INNOVATION & INFRASTRUCTURE

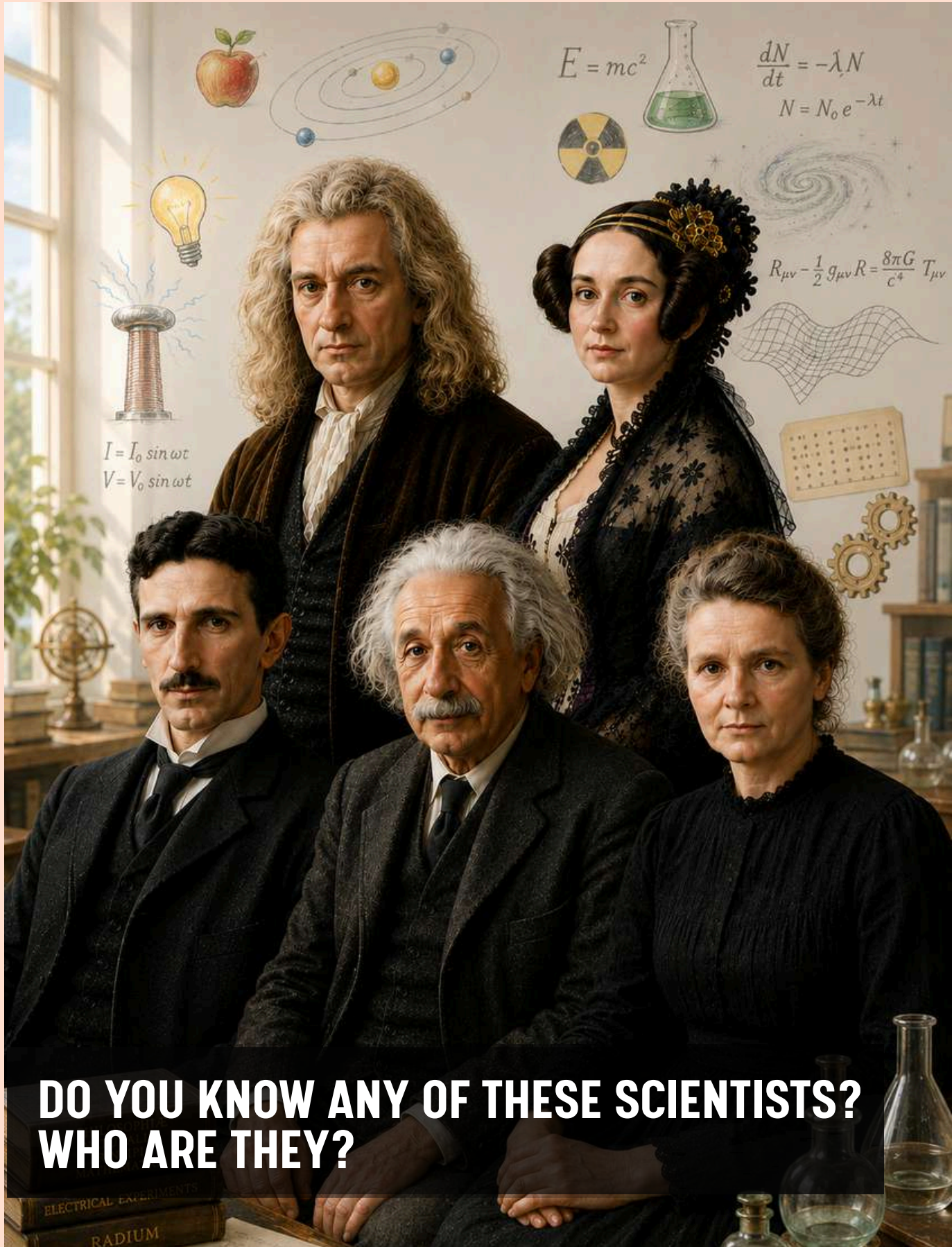
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9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



READING

Reading Skills: Pronoun Reference



**DO YOU KNOW ANY OF THESE SCIENTISTS?
WHO ARE THEY?**

Read the texts below. How many pronouns can you find? Circle all the pronouns in each passage.

Albert Einstein

In 1905, Einstein published several important papers. He wrote about topics like tiny particles moving in liquid, how light can release electricity, and special relativity. In special relativity, he explained that space and time are connected. The idea later helped scientists understand the universe better. In 1916, he developed general relativity, which explains that gravity can bend space and time.

Marie Curie

Marie Curie was a scientist who studied radioactivity. She discovered two new elements: polonium and radium. Her work helped doctors use radiation in medicine, such as in some cancer treatments. Curie is also known because she won two Nobel Prizes in two different science fields. She is remembered for her hard work and for changing modern science.

Isaac Newton

Newton was a quiet person, and he kept his discoveries secret for many years. His friend Edmund Halley encouraged him to publish his work. Halley was interested because people were discussing a question about how planets move. When Halley asked Newton for help, Newton already had the answer. Halley was so impressed that he encouraged Newton to share his ideas with the world.

Ada Lovelace

Ada Lovelace was a mathematician in the 1800s. She worked with Charles Babbage, who designed an early machine for calculations. Ada wrote clear notes about how the machine could follow steps to solve problems. Many people consider her as one of the first writers of a computer program. Today, she is remembered as an important figure in the history of computing.

Nikola Tesla

Tesla made many contributions to electricity. One important invention was the Tesla coil, a device that produces very high voltage. It helped people understand how to create and control strong electrical energy. Tesla also explored the idea of sending power without wires. Today, the idea continues in research on wireless charging. That is why we now see it in devices like smartphones.

Types of Pronouns

Using pronouns allows writers to show variety in a text without repeating the same noun and create smoother, more varied sentences. In English, pronouns can be classified into several types, based on their function, as follows:

Type	Usage	Examples
Personal pronoun	used to refer to people, animals, or things as subjects or objects	I, you, we, they, he, she, it, me, you, us, them, him, her, it
Possessive pronoun	used to express possession, ownership, or relationships	mine, yours, ours, theirs, his, hers, its
Reflexive pronoun	used when the subject and object are the same	myself, yourself/ yourselves, ourselves, themselves, himself, herself, itself
Intensive pronoun	used to emphasize the subject	myself, yourself/ yourselves, ourselves, themselves, himself, herself, itself
Demonstrative pronoun	used to point to specific things	this, that, these, those
Indefinite pronoun	used to refer to non-specific people or things	anybody, somebody, everybody, nobody anyone, someone, everyone, no one anything, something, everything, nothing
Interrogative pronoun	used to ask questions about unknown people or things	who, whom, whose, which, what
Relative pronoun	used to connect dependent clauses to independent clauses	who, whom, whose, which, what, that
Reciprocal pronoun	used to express mutual relationships or actions	each other, one another

Adapted from: <https://www.thesaurus.com/e/grammar/what-are-the-types-of-pronouns/>

A pronoun can also refer to a general idea, not just a specific person, place, thing, or animal. See the example below:

The use of reusable cups should be promoted widely. **This** should not be the only measure to curb plastic use, though.

In this case, “this” does not refer to a cup or any specific thing. Instead, the pronoun refers to the whole previous idea.

Notes: An important reading skill is to identify what a pronoun refers to in the text. This is called an antecedent. A pronoun does not always refer to the nearest noun. See the examples below:

Cloud computing is hosted on remote servers, **which** are maintained in data centers around the world. Cloud computing is widely used in education and business. **It** allows users to store files and run software online without installing them on a personal computer.

In the first sentence, the relative pronoun “**which**” refers to “remote servers,” which is the closest noun and also matches the plural verb “are maintained.” In the second sentence, the subject pronoun “**it**” refers to “cloud computing,” which is not the nearest noun. Gender, number, and especially meaning can help a reader identify what a pronoun refers to.

Note that there has been an increasing trend in the use of singular “they” as a gender-neutral pronoun. Because of this, number alone (plural or singular) may not always help identify the noun to which a pronoun refers. This noun is called the pronoun’s antecedent. Readers must rely on context and use a combination of strategies (gender, number, and meaning) to help identify the antecedent for a pronoun.

READING

Reading Text 1

Warm-up activity

Discuss with a partner.

- How do you usually travel around Bangkok?
- What is the biggest problem with travelling in Bangkok?
- Have you ever used the MRT or BTS? What was your experience like?
- How do you think new train lines might change the way people travel?

*Look at the photo below. What comes to mind when you see this image?
Choose THREE words you think the reading will include.*



1. _____
2. _____
3. _____



NEW MRT AND MONORAIL LINES TRANSFORMING COMMUTES

Adapted from <https://www.asialifestylemagazine.com/bangkok-infrastructure-development>

[1] Bangkok's **notorious** traffic jams are getting some relief thanks to new mass transit lines that have recently opened. In 2023, two new rapid transit lines opened, **dramatically** expanding the city's rail network: the MRT Yellow Line and the MRT Pink Line. **These**¹ are modern monorails that now link areas of the city that previously had no train service, giving **residents** more convenient travel options.

[2] New mass transit lines like the Pink and Yellow Lines have expanded the rail network and cut commute times. The Pink Line began full service in late 2023, spanning 34.5 km with 30 stations from Bangkok's northern suburb of Khae Rai (Nonthaburi) to Min Buri in the east. **It**² is driverless and zips above **congested** roads, cutting travel time by over 50%. On that route, trips that once took over two hours by car now take under an hour by train. The Pink Line is designed to **integrate** with five other transit lines as well, and **this**³ improves connectivity across northern Bangkok.

[3] On the other side of town, the Yellow Line (which opened in mid-2023) runs over 30 km from Lat Phrao in north-central Bangkok to Samrong in the southeast. **It**⁴ serves **neighbourhoods** along the eastern ring road and connects with existing MRT/BTS lines at key points, essentially creating an orbital route. Together, the Pink and Yellow Lines have significantly improved public transport options. At the Pink Line launch, Thailand's Deputy Transport Minister noted that **they**⁵ were "providing a faster and more **efficient** way for people to travel between the city's major districts."

[4] These new lines are a game-changer for commuters. Residents living in areas like Min Buri or along Lat Phrao Road, **which**⁶ used to be far from any rail line, can now hop on a clean, air-conditioned train and reach downtown business centres or connections to the BTS/MRT with ease. **This**⁷ opens up new residential options for long-term visitors, so **they**⁸ are no longer limited to living near older BTS lines anymore. For example, an IT professional could live in a more **spacious** apartment in Nonthaburi or along Srinakarin Road (served by the Yellow Line) and still commute to an office in Sukhumvit conveniently. The expanded network also reduces reliance on cars and motorbikes, leading to less time stuck in traffic and more sustainable urban travel.



[5] And it doesn't stop here—Bangkok continues to expand its urban rail system. The MRT Orange Line is currently under construction to link eastern and western Bangkok (from the Thailand Cultural Centre through Ramkhamhaeng to Min Buri), and although **its**⁹ full completion has faced delays, officials project the entire line will be operational by 2030. The eastern section is expected to open earlier (late 2020s), and **that**¹⁰ will further improve access to suburban areas. Future projects, such as the planned Light Blue Line and **extensions** of existing lines, are also being developed. For residents and visitors, each new line means shorter commute times, less money spent on taxis or fuel, and easier access to explore Bangkok's **diverse** neighbourhoods.

Reading Activity 1

The pronouns in the table below are from Reading Text 1. What do they refer to?

No.	Words	Refer to
1	These	
2	It	
3	this	
4	It	
5	they	
6	which	
7	This	
8	they	
9	its	
10	that	

Reading Activity 2

Answer the following questions based on Reading Text 1.

1. Which statement best summarizes the main idea of the passage?
- A) Bangkok is replacing older rail lines with new monorail technology.

B) Bangkok is expanding its rail network, making commuting easier and faster.

C) Bangkok is focusing only on downtown transport and business travel routes.

D) Bangkok is solving traffic problems mainly by improving roads and highways.
2. What can be inferred about Bangkok’s transportation system from the passage?
- A) Most residents still prefer traveling by boat instead of rail.

B) New rail lines are mainly designed for tourists visiting Bangkok.

C) The government plans to stop expanding the rail network soon.

D) The city is trying to reduce dependence on private vehicles.

3. According to the passage, how do the new rail lines benefit commuters?
 - A) They make train tickets cheaper than bus fares.
 - B) They allow commuters to avoid living in suburban areas.
 - C) They reduce travel time and improve access across the city.
 - D) They replace all existing BTS and MRT routes.
4. What can be inferred about people living in Min Buri or along Srinakarin Road?
 - A) They now have better access to rail transport than they did before.
 - B) They now prefer using taxis because trains are less convenient there.
 - C) They now face longer travel times because roads are more congested.
 - D) They now avoid downtown areas because travel connections are limited.
5. Which description of the Yellow Line matches the information in the passage?
 - A) It runs from Lat Phrao to Samrong, covering over 30 km in total.
 - B) It runs from Khae Rai to Min Buri, covering about 34.5 km in total.
 - C) It runs from Sukhumvit to Silom, directly linking the main business areas.
 - D) It runs from Thailand Cultural Centre to Ramkhamhaeng, and is still under construction.
6. By what year do officials project the MRT Orange Line will be fully operational?
 - A) 2027
 - B) 2028
 - C) 2030
 - D) 2035
7. What is the writer's main purpose in the passage?
 - A) To describe new rail lines and explain their benefits for commuters
 - B) To argue that road travel is still the most effective option in Bangkok
 - C) To compare Bangkok's transport system with those of other cities in the region
 - D) To warn readers that future rail projects will not be completed on time

Discussion

Work in pairs (or groups of 3) and discuss the questions below.

- How do you think new rail lines can change people's daily lives in a big city like Bangkok?
- What are the advantages and disadvantages of living in areas connected to mass transit systems?
- Do you think expanding public transportation is a good solution to Bangkok's traffic problems? Why or why not?
- Which form of public transportation do you prefer in Bangkok (e.g., BTS, MRT, bus, boat, taxi)? Explain your reasons.
- Besides rail transport, what other transportation improvements would you recommend for Bangkok?



READING

Reading Text 2

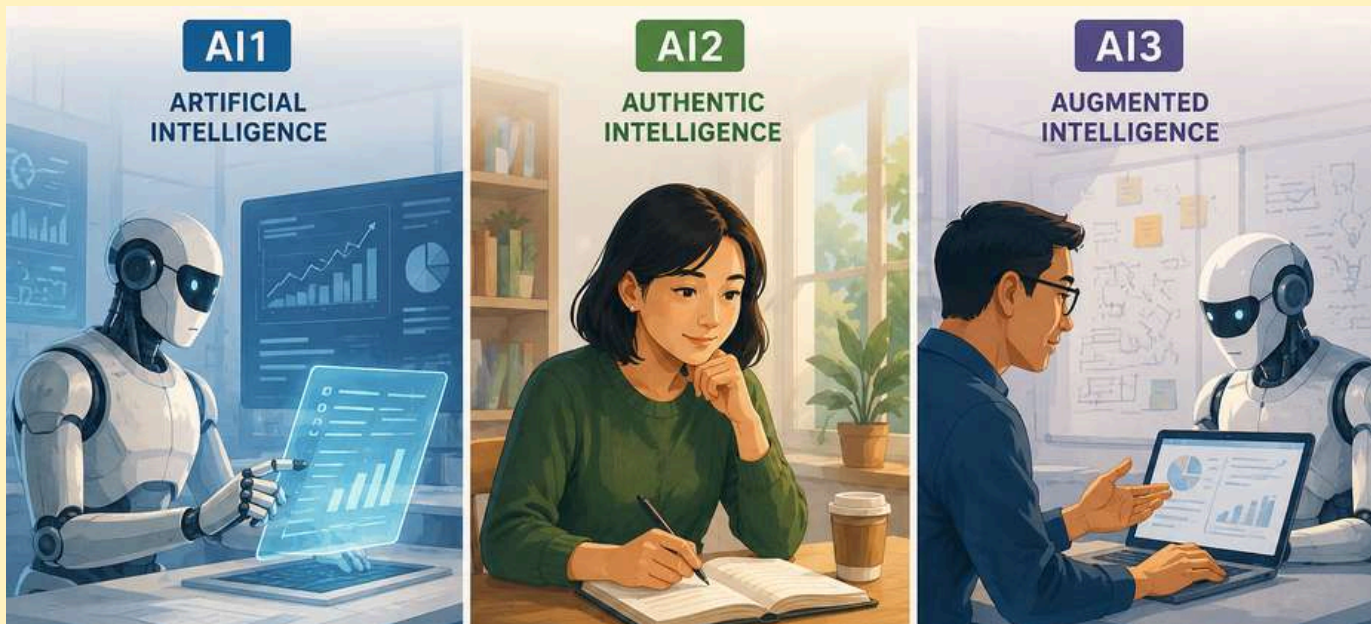
Warm-up activity

Complete this survey and compare your answers with your classmates.

WHAT IS YOUR EXPERIENCE WITH TECHNOLOGY?		
1. How often do you use AI-powered tools (e.g., voice assistants, recommendations, chatbots)?		
☐ Rarely	☐ Sometimes	☐ Always
2. What would you like AI to help you with most?		
☐ Studying	☐ Daily life tasks	☐ Entertainment
3. How do you prefer to communicate?		
☐ Text messages or apps	☐ Phone calls	☐ Face-to-face
4. How do you prefer to shop?		
☐ Online shopping	☐ In-store shopping only	☐ A mix of online and in-store
5. Which do you prefer for learning?		
☐ Digital tools	☐ Traditional tools only	☐ A mix of digital and traditional tools
6. Do you trust AI systems to make important decisions (e.g., medical, legal, educational decisions)?		
☐ Yes	☐ Sometimes	☐ No
7. Do you think technology makes people closer or more distant?		
☐ Closer	☐ More distant	☐ Both closer and more distant
8. Artificial intelligence will replace many jobs in the future.		
☐ Agree	☐ Disagree	
9. One technology I could not imagine living without is:		
10. In which area do you think AI is most useful today? (e.g., education, healthcare, entertainment, business, or transportation)		

THE THREE TYPES OF AI

Adapted from <https://blog.irvingwb.com/blog/2021/07/human-machine-augmented-intelligence.html>



[1] Throughout the Industrial Revolution period, there were periodic panics about the impact of automation on jobs, going back to the so-called Luddites, textile workers in the 1810s who destroyed the new machines that were threatening their jobs. Now, artificial intelligence is already **superior** to humans in a number of tasks. The question of whether AI will replace human workers assumes that AI and humans have the same qualities and abilities – but, in reality, they don't. AI-based machines are fast, accurate, and consistently rational, but **they** aren't intuitive, emotional, or culturally sensitive. And it's exactly these abilities that humans possess. To better understand the relationship between human and artificial intelligence, we might categorise intelligence into three different types: artificial intelligence (AI1), authentic intelligence (AI2), and augmented intelligence (AI3).

Artificial Intelligence (AI1)

[2] In its simplest form, AI refers to computers acting and making decisions in ways that seem intelligent. AI1 is generally based on machine learning methods, which involve analysing large amounts of information using powerful computers and **sophisticated** algorithms. Technology advances have enabled selected AI1 applications to achieve or surpass human levels of performance in specific tasks, including image and speech recognition, skin cancer classification, breast cancer detection, and prostate cancer grading. In addition, **contrary to** humans, AI never gets physically tired and as long as it's fed data **it** will keep going. These qualities mean that AI is perfectly suited to put to work on lower-level routine tasks that are **repetitive** and take place within a controlled work environment.

Authentic Intelligence (AI2)

[3] Authentic intelligence refers to human intelligence, including the abilities to reason, use judgment, adapt to changing situations, and understand emotions and social contexts. Unlike artificial intelligence, which is only responsive to the data available, humans have the ability to imagine, **anticipate**, feel, and judge changing situations. In a **corporate**, teams and organizations constantly interact with the external environment and therefore have to deal with influences from outside. Such work settings require the ability to anticipate and manage sudden changes and miscommunication, while also being creative in clarifying a vision and future **strategy**. **These** require authentic intelligence.

Augmented Intelligence (AI3)

[4] Augmented intelligence refers to the collaboration between human intelligence and artificial intelligence systems, where AI enhances human decision-making, creativity, and productivity rather than replacing people. This combination of both AI1 and AI2 talents will make the future of intelligent work. We have seen a number of examples where the combination of humans and machines makes better decisions than either one on its own. Sabermetrics, the use of statistics in baseball to project a player's performance and career, is one such **prominent** example. Many people viewed **it** as a conflict between the traditional approach of the scouts – the professional talent evaluators who learn about the players first-hand by meeting **them** in person and watching them play – versus the new approaches being introduced by the statheads, who



mostly rely on sophisticated statistical analysis to predict future performance. The data that compared the performance of scouts versus more purely statistical approaches showed that the scouts' predictions were about 15 percent better than **those** that relied on statistics alone. The good scouts use a hybrid approach. Statistics alone cannot tell you everything you want to know about a player, and the additional personal evaluations of the scouts make a significant difference.

[5] Chess is another prominent example. In 1997, world champion Kasparov lost a chess match to IBM's Deep Blue supercomputer. Kasparov himself realized that the strength of the human players is not what **determines** the winning team. Rather, it's the quality of the partnership that matters, that is, the process of how players and computers interact. As Kasparov put it, "Weak human + machine + better process was superior to a strong computer alone and, more remarkably, superior to a strong human + machine + inferior process."

[6] Automation can indeed replace some human labour. However, automation can also support workers, raising economic outputs in ways that often lead to more long-run employment, not less. After all, new technology always has disruptive effects early on in the **implementation** and development phases and usually reveals its real value only after some time.

Reading Activity 1

Answer the following questions based on Reading Text 2.

1. What is the main idea of the passage?

Read the passage and decide whether each statement is:

- **TRUE** – agrees with the passage
- **FALSE** – contradicts the passage
- **NOT GIVEN** – not mentioned in the passage

- _____ 2. Public anxiety about machines replacing workers existed long before the development of modern artificial intelligence.
- _____ 3. The passage suggests that AI and humans have identical strengths and weaknesses.
- _____ 4. Some AI technologies have already matched or exceeded human performance in certain medical fields.
- _____ 5. Sabermetrics was immediately accepted by baseball scouts as a superior method of evaluating players.
- _____ 6. Kasparov predicted that all professional chess tournaments would eventually require the use of AI.

Reading Activity 2

Complete the table below. Choose **ONE WORD ONLY** from the passage for each answer.

Types of AI	Descriptions
AI1	AI1 uses machine learning methods and sophisticated (1) _____ to analyse large amounts of information. AI1 is especially suitable for routine and repetitive (2) _____.
AI2	Authentic intelligence refers to human intelligence, including the ability to use (3) _____ and adapt to changing situations. Humans can understand emotions and social (4) _____.
AI3	Augmented intelligence combines human intelligence with AI systems to improve decision-making, creativity, and (5) _____. In augmented intelligence, the quality of the human-machine (6) _____ is more important than individual strength alone.

Reading Activity 3

Identify which noun that the following pronouns refer to.

1. The pronoun **they** (paragraph 1) refers to _____.
2. The pronoun **it** (paragraph 2) refers to _____.
3. The pronoun **these** (paragraph 3) refers to _____.
4. The pronoun **it** (paragraph 4) refers to _____.
5. The pronoun **them** (paragraph 4) refers to _____.
6. The pronoun **those** (paragraph 4) refers to _____.

LANGUAGE FOCUS

Past Tenses for Narrative Writing

When we write stories, we usually describe the main events (what happened), the background scene (what was happening), earlier events that happened before another past event, and longer actions that continued up to a past moment.

To do this clearly, we use four past tenses.

PAST SIMPLE	
Form	Subject + Verb 2 / -ed
What is Past Simple?	Use Past Simple to talk about finished actions in the past. In stories, Past Simple is the tense for main events.
When do we use Past Simple in a story?	Use Past Simple when you want to tell • what happened first, next, and last • a single finished action in the past • a series of actions Examples: • I woke up, checked my phone, and noticed something strange. • The bus stopped, the driver turned, and everyone looked at me.
Time expressions	yesterday, last night, last week, two days ago, in 2020, then, after that
Past Simple in a narrative model	Yesterday, I left home early. I walked to the BTS station and checked my bag. Suddenly, I realized my wallet was missing. I ran back home, opened the door, and looked everywhere. In the end, I found it in my jacket pocket. I laughed and promised to be more careful next time.

PAST CONTINUOUS

Form	Subject + was / were + V-ing
What is Past Continuous?	Use Past Continuous to talk about an action that was in progress at a specific time in the past. In stories, Past Continuous helps describe the background scene, what people were doing at that moment, and actions in progress that are often interrupted by Past Simple events.
When do we use Past Continuous in a story?	Use Past Continuous when you want: 1. To describe the background: Examples: • It was raining, and the wind was blowing strongly. 2. To show an action in progress (at that moment): Examples: • At 9 p.m., I was studying in my room. 3. To show interruption (Past Continuous & Past Simple) Examples: • I was sleeping when my phone rang.
Time expressions	while, when, as, at that moment, all evening, at 8 p.m.
Past Continuous in a narrative model	It was late, and I was walking home alone. The streets were getting quieter, and the shops were closing . I was checking my phone when I heard footsteps behind me. My heart was beating fast, but I kept walking. Then someone called my name—it was my friend, not a stranger.

PAST PERFECT

Form	Subject + had + past participle (V3)
What is Past Perfect?	We use Past Perfect to show that one past action happened before another past action.
When do we use Past Perfect in a story?	In narrative writing, Past Perfect helps readers understand the order of events clearly—especially when the time order might be confusing. Use Past Perfect when you want to explain: • something that happened before the main story moment • a reason/background for what happened later • an earlier experience (often using <i>never</i>, <i>already</i>, or <i>just</i>) Examples: • I was nervous because I had forgotten my speech notes. • She had never met him before that day. • By the time we got home, someone had taken our package.
Time expressions	when, by the time, after/before
Past Perfect in a narrative model	I felt embarrassed yesterday. I arrived at the classroom and suddenly realized I had brought the wrong notebook. I had studied the wrong chapter the night before. When the teacher asked a question, I couldn't answer. After class, I checked the course page and saw the real homework. I promised myself to check the instructions more carefully next time.

PAST PERFECT CONTINUOUS

Form	Subject + had been + V-ing
What is Past Perfect Continuous?	Use Past Perfect Continuous to show that an action started in the past, continued for some time and was still in progress (or had just stopped) before another past moment. It often explains duration (how long something continued) and cause (why someone felt or looked a certain way).
When do we use Past Perfect Continuous in a story?	Use Past Perfect Continuous when you want: 1. To emphasize duration before a past event Use it to show how long something continued before another past action. Examples: • By the time the teacher arrived, we had been waiting for 20 minutes. 2. To explain a past result Use it to explain why something happened or why someone felt a certain way. Examples: • He was angry because he had been dealing with problems all day.
Time expressions	for, since, all day/night, before, by the time
Past Perfect Continuous in a narrative model	I felt exhausted yesterday. I had been preparing for my presentation since early morning, and I had been practicing in my room for hours. By the time I arrived at class, my voice was weak because I had been speaking nonstop. When the teacher finally called my name, I took a deep breath and started. Surprisingly, everything went better than I expected.

**Notes:****Past Perfect vs Past Perfect Continuous**

Both show “earlier past,” but the focus is different:

- **Past Perfect** = focus on **completion/result**
I had finished my homework.
(finished = result)
- **Past Perfect Continuous** = focus on **duration/process**
I had been doing my homework for two hours.
(time & effort)

Exercise 1

Fill in each blank with the appropriate form of the verb in the brackets.

1. I _____ (walk) home when I heard someone call my name.
2. At 9 p.m. last night, we _____ (discuss) our project in the library.
3. When I arrived at the station, the train _____ (leave) already.
4. She was exhausted because she _____ (work) since early morning.
5. While I was cooking, my brother _____ (knock) on the door.
6. They _____ (wait) outside for 15 minutes when the teacher finally opened the room.
7. By the time we got to the cinema, the movie _____ (start).
8. He dropped his phone while he _____ (run) to catch the bus.
9. I didn't recognize her because I _____ (not/meet) her before.
10. We _____ (study) for two hours when the power suddenly went out.

Exercise 2

Read the mini-story and complete each blank with the correct past tense form of the verb in brackets.

Story: *The Wrong Room*

Last Friday at my university, students (1) _____(wait) outside Room 214, and the teacher was talking to a group near the door. I (2) _____(run) down the hallway, rushing to my class. When I reached the room, the quiz (3) _____(begin). I (4) _____(start) to panic. I stood there when a student whispered, “You are in the wrong class!” Suddenly, I realized that I (5) _____(arrive) at the wrong room. I (6) _____(run) out quickly. By the time I reached my class, the teacher told me that I was too late for the quiz. I (7) _____(feel) shocked because I (8) _____(study) all week for the quiz I could not take.

WRITING



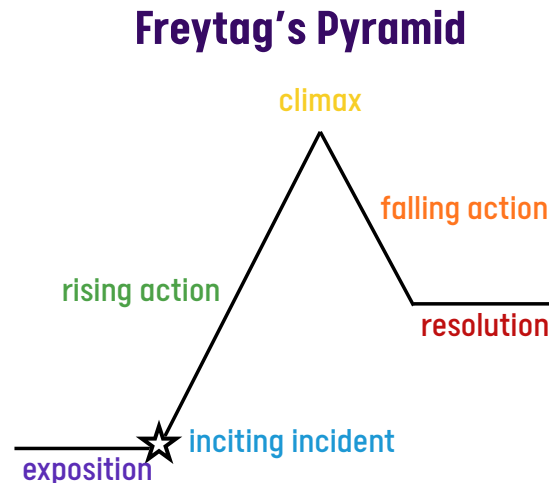
Narrative Paragraph

A narrative paragraph answers the question, “What happened?” It tells a story about something that happened in the past, usually an interesting or memorable experience. You can write a narrative paragraph about anything and make it interesting with the details that you include. These details should help readers answer the following questions:

- When did this happen?
- Where did this happen?
- Who was involved?

The Structure of Narrative Paragraphs

Freytag's Pyramid can help organize a narrative paragraph. There are six main components. The six components are explained below.



1. **Exposition:** The context or setting of the story (Who: the characters, Where: the location, When: the time)

Example: On a quiet afternoon in a suburban Japanese town, Nobita, a clumsy schoolboy, sat in his small family house struggling with his homework. Living with him was Doraemon, a blue robotic cat sent from the future, who secretly used advanced gadgets to help Nobita survive everyday life.

2. **Inciting incident:** The conflict that occurs in the plot

Example: After being bullied at school by Giant and Suneo, Nobita ran home crying and begged Doraemon for help. Doraemon reluctantly pulled a new gadget out of his pocket to solve Nobita's problem.

3. **Rising action:** A series of events that increase tension as the main character is facing the obstacles

Example: Nobita used the gadget to get revenge on Giant and Suneo and to impress Shizuka. However, Nobita began to misuse the gadget, causing unexpected problems around the neighbourhood.

4. **Climax:** The most exciting moment, the greatest tension, or the turning point

Example: The gadget's effects spiraled out of control, creating chaos that Nobita could no longer handle. Nobita panicked as everyone was affected, and Doraemon had to step in before the situation became worse.

5. **Falling action:** The tension that begins to decrease

Example: Doraemon deactivated the gadget, slowly restoring things to normal.

6. **Resolution:** The conclusion where the conflict is resolved, lessons are learned, and characters return to a new normal

Example: Nobita realized that his careless actions caused trouble. He apologized and learned a lesson about responsibility and honesty.

Writing Activity 1

The following narrative paragraph is about an incident that happened to Lauren. Identify the six components of a narrative paragraph by writing the sentence number in the blanks below.

(1) Recently, I broke my finger in the most ridiculous way possible. (2) Six days ago, I was in the main library with my friend, Charlie. (3) He told me that he was going to have an English test. (4) However, he did not know the meaning of some vocabulary words. (5) I did not know their meaning, either. (6) I said I would help him, so I went to get a dictionary. (7) The dictionary was on the top shelf. (8) Charlie said he would ask the librarian to help us, but I said I could do it myself. (9) I climbed on a chair in order to get the dictionary, but as soon as I was close to it, it fell off the shelf and hit my left index finger. (10) Suddenly, I felt extreme pain in that finger. (11) I screamed, and Charlie and the librarian immediately ran over to help me. (12) Charlie, who is studying to be a nurse, checked my finger and told me that it was definitely broken. (13) The librarian calmly told me that I should have waited for her to get the dictionary. (14) I had been very reckless, and because of that, I hurt myself. (15) Due to this incident, I became more cautious. (202 words)

1. Exposition:

sentence(s) _____

2. Inciting incident:

sentence(s) _____

3. Rising action:

sentence(s) _____

4. Climax:

sentence(s) _____

5. Falling action:

sentence(s) _____

6. Resolution:

sentence(s) _____

Writing Activity 2

Read this narrative paragraph and answer the questions that follow.

I made a very good friend during a very embarrassing moment. Five years ago, I was invited to a party by my classmate, Max. He told me that it was a casual party at his apartment. However, I misheard him. I thought he said that the party was a costume party. By the time I arrived at the party, it was too late to go home and change clothes. I was very embarrassed because I was dressed as a buffalo. I had horns, hooves, and a tail that swung back and forth. I felt awkward because everyone else was wearing normal clothes, such as T-shirts and jeans. Max swore it was all right. He insisted that I could stay, but I was very embarrassed. After fifteen minutes, I wanted to go home. All of a sudden, Max happily announced that he had a surprise for me. Another guest had arrived. She was dressed like a Thai farmer! Immediately, everyone laughed. Several party guests asked us to pose for photographs together, and they posted them on social media. People on social media said that they loved our costumes. When we were done taking photographs, the girl who was in the Thai farmer costume and I talked. Her name was Delilah. We had a lot in common. For example, we were both passionate about the ocean. Since that party, we have travelled to many beaches together to help clean them up. I had felt reluctant to stay at that party, but I'm happy I did. From this incident, I met one of the most wonderful people in my life. (267 words)

1. When did this incident happen?

2. Where did this incident happen?

3. Who was involved in this incident? (Name as many people involved in the story as you can.)

4. What was the inciting incident?

5. What did the main character gain at the end of the incident?

Writing Activity 3

Read the group of the sentences. Number them in the correct order to create a narrative paragraph and share the story with the class.

Group 1:

- _____ a. She came home late.
- _____ b. She went to a movie with her friends.
- _____ c. Her laptop stopped working because coffee spilled on it.
- _____ d. She knocked the cup over.
- _____ e. She tried to clean up the coffee, but the liquid was everywhere.
- _____ f. Last night, Nancy created a huge problem for herself.
- _____ g. She put the cup of coffee on her desk next to her computer.
- _____ h. She made a cup of coffee so that she could stay awake to do her homework.

Group 2:

- _____ a. James called the credit card company to activate the card.
- _____ b. He waited for approximately one week for his card to arrive in the mail.
- _____ c. He submitted the application online.
- _____ d. James wanted to get his first credit card.
- _____ e. He got an application on the credit card company website.
- _____ f. He filled out the application.
- _____ g. He researched the credit card that was best for him.
- _____ h. He signed his new card on the back as soon as he received it.

Useful Language for Writing Narrative Paragraphs

TRANSITION WORDS FOR CLEAR CHRONOLOGICAL ORDER

Function	Transition Words / Phrases	Example in a Narrative Paragraph
Beginning events	first, at first, initially, in the beginning	At first, I didn't notice that my bag was missing.
Next / sequence	then, next, afterward, after that	Then, I ran back to the bus stop.
Time passing	minutes later, shortly after, a while later, soon	Minutes later, I realized what had happened.
Simultaneous actions	while, as, meanwhile, at the same time	While I was searching my pockets, people were staring at me.
Cause and effect	so, because, as a result, therefore	I was in a hurry, so I forgot to check my seat.
Unexpected events / contrast	suddenly, however, unexpectedly	Suddenly, the bus disappeared from view.
Climax / peak moment	at that moment, just then, without warning	At that moment, my phone rang with good news.
Ending / resolution	finally, in the end, eventually, at last	In the end, I got my backpack back.
Reflection / lesson	afterward, since then, from that day on	Since then, I always double-check my belongings.



Notes: Many transition words are followed by commas.

Examples:

- Suddenly,
- In the end,
- Afterward,

PREPOSITIONS OF PLACE

in

- I was **in** Vancouver for a movie premiere.
- After that, he waited **in** the living room.

on

- I was **on** the fifth floor.
- After that, I was **on** the bus for two hours.

at

- I tripped on an extension cord **at** my sister's house.
- She ordered croissants **at** the bakery.
- We sang along **at** the concert.

REPORTING VERBS

adverb + reporting verb

- The dancer **angrily said** that he was going to leave.
- The journalist **excitedly announced** that she was moving to Spain.

asked

- She **asked** me to help her find her book.
- The visitor **asked** to see the baby penguin.

* You can find more reporting verbs here: <https://tinyurl.com/ycxdecxh>

Writing Activity 4

Choose the most appropriate transition word or phrase to complete each sentence.

1. _____, I didn't realize my wallet was missing.
 - A) Finally
 - B) At first
 - C) As a result
 - D) Meanwhile

2. I searched my bag carefully; _____, I checked my jacket pockets.
 - A) in the end
 - B) suddenly
 - C) next
 - D) although

3. _____ I was rushing to catch the bus, I forgot to check my seat.
 - A) While
 - B) Finally
 - C) However
 - D) Later

4. I waited nervously at the station; _____, the driver returned with my bag.
 - A) at first
 - B) meanwhile
 - C) eventually
 - D) because

5. _____, I have always checked my bag carefully.
 - A) At that moment
 - B) Suddenly
 - C) In the beginning
 - D) Since then

Writing Activity 5

Number the sentences (1–5) to create a coherent narrative.

_____ I felt a rush of relief when the driver returned with my bag.

_____ I stepped off the bus without checking my seat.

_____ I realized my bag was missing a few minutes later.

_____ I reported the lost item at the bus terminal.

_____ I hurried back to the bus stop in a panic.

Rewrite the sentences as a paragraph and add transition words where needed.

Rewritten Paragraph:

Additional Writing Topics

Here are some ideas for narrative paragraphs. When you write your paragraph, follow the narrative structure and use the useful phrases provided:

- Write about an important lesson that you learned.
- Write about how someone you know got out of trouble.
- Write about the most memorable experience when traveling abroad.
- Write about the most frightening experience you have ever had.
- What was the most exciting thing that happened to you as a child?
- Write about a viral event that happened in your hometown.
- Write about the most embarrassing experience you have ever had.
- What was the most disappointing thing that has ever happened to you?

Video Writing Assignment



Please refer to the Video Worksheet.

Writing Quiz 2 [10%]

Write a well-organized narrative paragraph (180–220 words) to address the given topic. Make sure to include all necessary narrative components and clear supporting details.

WRITING RUBRIC (15 POINTS)

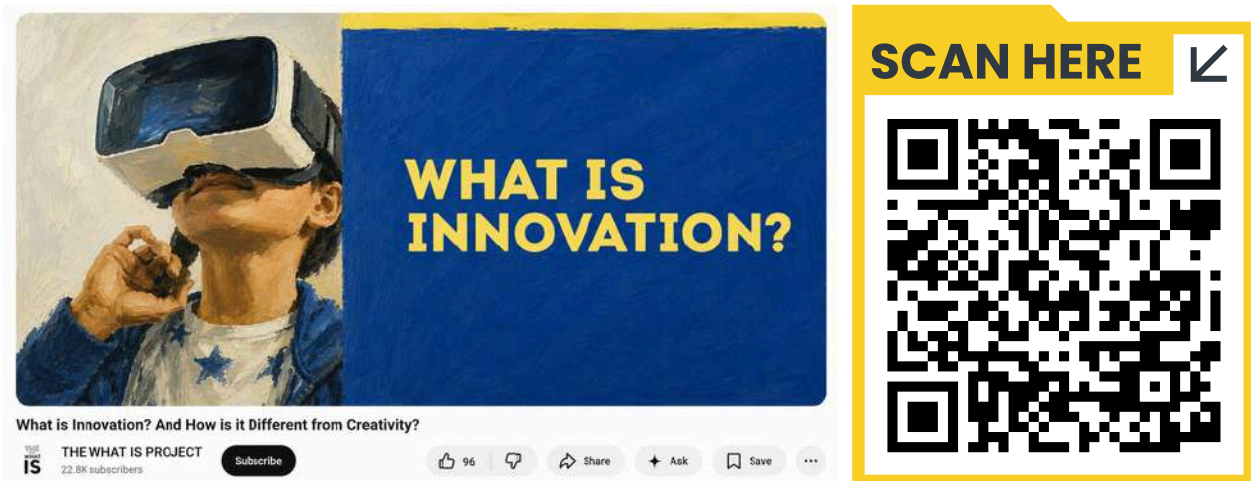
Score	Descriptors		
	Task Completion / Content (5)	Organization (5)	Language (5)
5	- Presents a clear main idea - Presents a fully developed response to the prompt with relevant, fully extended and well supported ideas - Contains all the necessary paragraph components	- Arranges ideas logically - The paragraph reads smoothly throughout with the appropriate use of transition devices as needed.	- Uses a wide range of vocabulary and structures with full flexibility and accuracy Rare minor errors occur only as 'slips'
4	- Presents a clear main idea - Presents a well-developed response to the prompt with relevant, extended and supported ideas AND/OR - Contains almost all the necessary paragraph components	Generally arranges ideas in a logical manner - Uses transition devices effectively, but cohesion within and/or between sentences may be faulty or mechanical	- Uses an adequate range of vocabulary and variety of structures Most sentences are error-free
3	- Does not present a clear main idea - Presents limited and/or insufficiently developed ideas AND/OR - Misses some of the necessary paragraph components	- Arranges ideas in a somewhat logical manner, but may lack coherence in some parts - The paragraph doesn't read smoothly and/or there is inaccurate or repetitive use of transition devices.	Attempts to use a suitable range of vocabulary and variety of structures Some errors with vocabulary and structures
2	- Does not present a main idea - Presents some irrelevant ideas AND/OR - Misses most of the necessary paragraph components	- Arranges ideas with little logical connection - Uses a limited range of, or inaccurate, transition devices	- Uses a limited range of vocabulary and structures Frequent errors with vocabulary and structures
1	- Does not present a main idea AND/OR - Shows nearly no evidence of the necessary paragraph components	Shows very little control of paragraph organization	- Uses a very limited range of vocabulary and structures - Errors impede communication
0	Writes an incomprehensible/ completely unrelated response	Shows no control of paragraph organization	Shows no identifiable command of English structure and vocabulary
	Does not attempt this task		

Notes: Between-bands scoring (.5 and .25) is **NOT** allowed.

COMMUNICATION ACTIVITY

Communication Activity 1

Watch the video clip “What is Innovation? And How is it Different from Creativity?” via the link below or scan the QR Code to access the video clip.



[THE WHAT IS PROJECT: “What is Innovation? And How is it Different from Creativity?”](#)

Write TRUE (T) if the statement is true and FALSE (F) if the statement is false.

- _____ 1. Innovation is limited to technological developments within the business sector.
- _____ 2. Innovation can involve changes in culture as well as products and services.
- _____ 3. Innovation can help address global issues such as climate change and poverty.
- _____ 4. Creativity and innovation are described as having similar meanings.
- _____ 5. Both creativity and innovation are said to depend on having a closed and careful mindset.

Work in pairs or groups of three. Discuss the following questions and then share your answers with the class.

- 1. How does innovation differ from creativity?
- 2. What characteristics are required for both creativity and innovation?
- 3. Can you think of an innovation that has significantly improved your daily life? How?

Communication Activity 2 [5%]

Innovation Pitch

From the video, innovation is defined as *the process of improving existing products, services, or processes. It involves discovering new ways to do things and developing them into useful applications.*

In pairs, imagine that you are a team of innovators. Design a new product, service, or idea that solves a real problem (e.g., in education, health, environment, work, or daily life).

Each pair must prepare a 3-minute pitch that includes the following:

1. What the innovation is
 - Describe your product, service, or idea
2. The problem it solves
 - Explain the real problem or need and why it matters
3. Why it is better than existing solutions
 - Highlight its advantages or unique features
4. Possible disadvantages or risks
 - Explain any possible weaknesses or challenges

“**Pitching** is the act of presenting an idea clearly and persuasively to an audience, often with a goal to gain interest, support, or approval. While presentation is about explaining or sharing information, pitching aims to convince the audience.”

SAMPLE INNOVATION PITCH



1. What the innovation is:

Our innovation is a mobile app called **Smart Study Planner**. It uses artificial intelligence to create personalized study schedules for students based on their subjects, deadlines, and study habits.

2. The problem it solves:

Many students struggle with time management and feel overwhelmed by assignments and exams. They often do not know how to plan their study time effectively, which leads to stress and poor academic performance.

3. Why it is better than existing solutions:

Unlike basic calendar apps, **Smart Study Planner** adjusts schedules automatically when deadlines change. It also sends reminders, suggests break times, and tracks progress, making studying more efficient and less stressful.

4. Possible disadvantages or risks:

One possible risk is that students may rely too much on the app instead of developing their own planning skills. Additionally, the app requires access to personal data, which raises privacy concerns.

Please refer to the scoring rubric in Appendix A.

UNIT 3 GLOSSARY

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
anticipate	verb	to imagine or expect that something will happen	Unlike artificial intelligence, which is only responsive to the data available, humans have the ability to imagine, anticipate , feel, and judge changing situations.
congested	adjective	crowded; full of traffic	It is driverless and zips above congested roads, cutting travel time by over 50%.
contrary to	preposition	saying or showing the opposite to; in contrast with	In addition, contrary to humans, AI never gets physically tired and as long as it's fed data it will keep going.
corporate	noun	a large company	In a corporate , teams or organizations constantly interact with the external environment and therefore have to deal with influences from outside.
determine	verb	to control or influence something directly, or to decide what will happen	Kasparov himself realized that the strength of the human players is not what determines the winning team.
diverse	adjective	very different from each other and of various kinds	For residents and visitors, every new line means shorter commute times, less money spent on taxis or fuel, and easier access to explore Bangkok's diverse neighbourhoods.
dramatically	adverb	very suddenly and to a very great and often surprising degree	In 2023, two new rapid transit lines opened, dramatically expanding the city's rail network: the MRT Yellow Line and the MRT Pink Line.
efficient	adjective	working well without wasting time, money, or energy	At the Pink Line launch, Thailand's Deputy Transport Minister noted that they were "providing a faster and more efficient way for people to travel between the city's major districts."
extension	noun	the act of increasing the area of activity, group of people, etc. that is affected by something	Future projects, such as the planned Light Blue Line and extensions of existing lines, are also being developed.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
implementation	noun	the act of starting to use a plan or system	After all, new technology always has disruptive effects early on in the implementation and development phases and usually reveals its real value only after some time.
integrate	verb	to combine two or more things so that they work together; to combine with something else in this way	The Pink Line is designed to integrate with five other transit lines as well, and this improves connectivity across northern Bangkok.
neighborhood	noun	an area of town or city where people live	It serves neighborhoods along the eastern ring road and connects with existing MRT/BTS lines at key points, essentially creating an orbital route.
notorious	adjective	well-known for being bad	Bangkok's notorious traffic jams are getting some relief thanks to new mass transit lines that have come online recently.
prominent	adjective	very well-known and important	Sabermetrics, the use of statistics in baseball to project a player's performance and career, is one such prominent example.
repetitive	adjective	involving doing or saying the same thing several times	These qualities mean that AI is perfectly suited to put to work on lower-level routine tasks that are repetitive and take place within a controlled work environment.
resident	noun	a person who lives in a particular place or who has their home there	These are modern monorails that now link areas of the city that previously had no train service, giving residents more convenient travel options.
sophisticated	adjective	advanced or complex	AI1 is generally based on machine learning methods, which involve analysing large amounts of information using powerful computers and sophisticated algorithms.

Vocabulary	Part of Speech	Meaning in Context	Examples from the Text
spacious	adjective	large and with plenty of space for people to move around in	For example, an IT professional could live in a more spacious apartment in Nonthaburi or along Srinakarin Road (served by the Yellow Line) and still commute to an office in Sukhumvit conveniently.
strategy	noun	a detailed plan to achieve a particular goal	Such work settings require the ability to anticipate and manage sudden changes and miscommunication, while also being creative in clarifying a vision and future strategy . These require authentic intelligence.
superior	adjective	better than someone or something else	Now, artificial intelligence is already superior to humans in a number of tasks.

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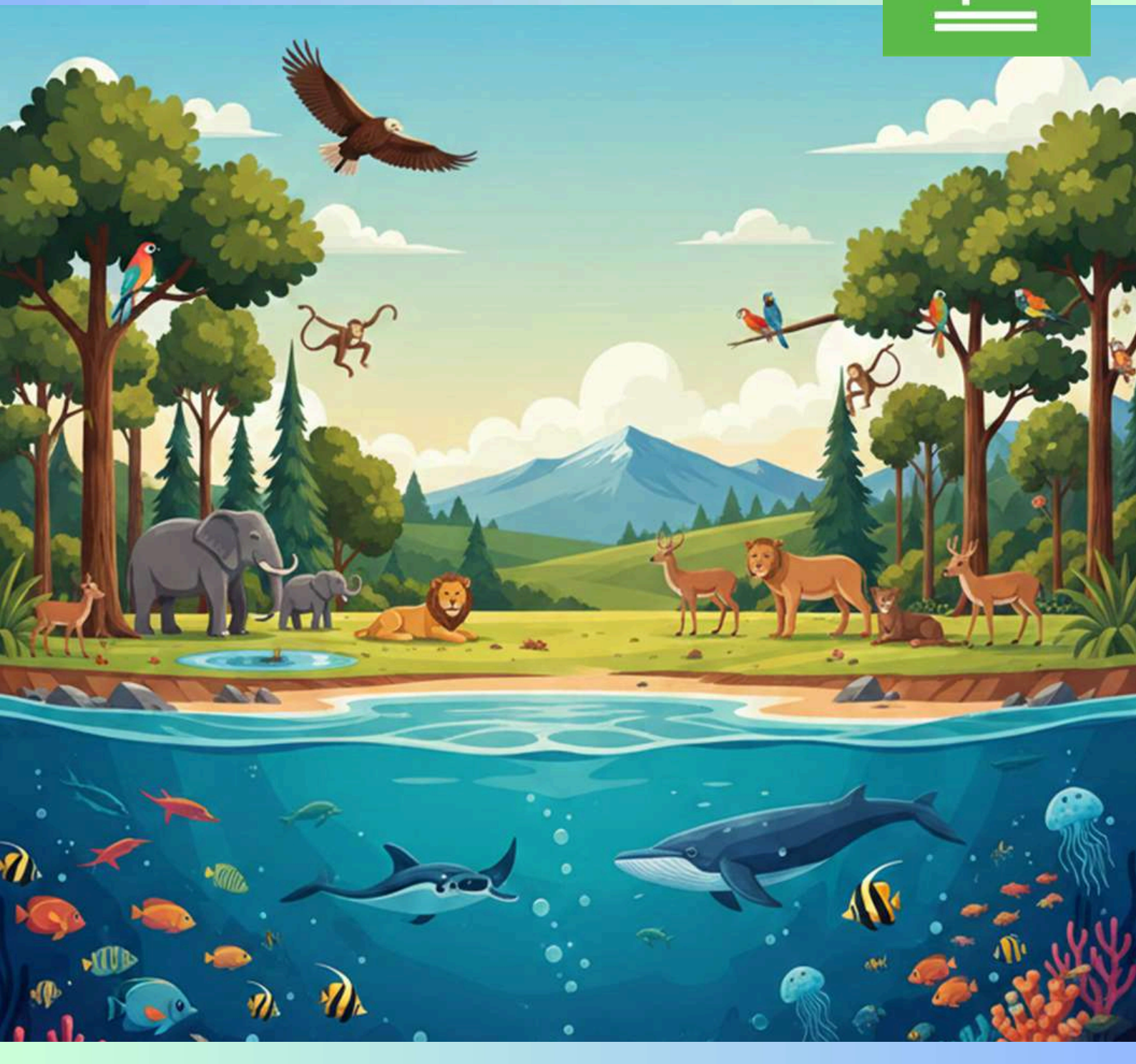
UNIT 4

LIFE BELOW

WATER &

LIFE ON LAND

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14 LIFE
BELOW WATER15 LIFE
ON LAND

READING

Reading Skills: Making Inferences



Adapted from a photo by NOAA Okeanos Explorer

The dumbo octopus lives in the deep sea, sometimes more than 13,000 feet below the surface. It is known for its ear-like fins, which make it appear to “fly” as it moves. Unlike most octopuses, it relies on slow, gentle fin strokes instead of strong jet movements. Its soft, gelatinous, and sometimes translucent body helps it survive the high pressure of its deep-ocean habitat.

Some of the conclusions that can be drawn from the paragraph above are:

1. The dumbo octopus conserves energy.

Evidence: Its slow, gentle movements suggest it does not waste energy, which is important in the deep sea where food can be scarce.

2. It is well adapted to extreme environments.

Evidence: Its soft, gelatinous body indicates it has evolved specifically to withstand intense pressure that most animals cannot survive.

3. It likely has few natural predators.

Evidence: Living at such great depths and moving calmly implies that it may not need fast escape methods, hinting that predators are limited in its habitat.

The conclusions drawn from the short paragraph above are called inferences, and the process of forming these conclusions from a text is known as making inferences.



Making inferences is an important reading skill. According to the Cambridge Dictionary, an inference is “a guess that you make or an opinion that you form based on the information that you have”. We make inferences all the time in everyday life. If your friend has pictures of emus as both the lock screen and home screen of his phone, wears clothes with emus printed on them, and sleeps with a stuffed emu,

what would you say his favourite animal is? Clearly, even if he has never said so directly, you know it is an emu! That is an inference.



Be careful: Making inferences is not the same as paraphrasing. When you paraphrase, you restate the ideas from the text using your own words while keeping the original meaning. When you make inferences, however, you draw a conclusion based on clues in the text—something that is not directly stated.

Now, let's look at more examples related to the dumbo octopus.



Adapted from a 3D model by HiepVu

This octopus feeds on small animals such as snails, worms, and crustaceans. It usually hovers close to the seafloor and swallows prey whole, without much struggle. Its reproductive habits are unusual, as females can carry eggs of different ages and may release them throughout the year. After hatching, the young are already capable of surviving on their own. Because it lives in such remote and dark parts of the ocean, the

dumbo octopus is rarely seen. Its quiet movements, unique shape, and ability to survive intense pressure make it one of the most mysterious and resilient animals in the deep sea.

Adapted from: <https://www.nationalgeographic.com/animals/invertebrates/facts/dumbo-octopus>

Exercise 1

It is your turn to draw some conclusions or make inferences based on the passage above. Here is an example for you below. Make two other inferences and identify the evidence (the sentences or details that support your inference).

Example:

Inference: The dumbo octopus does not need to chase fast-moving prey.

Evidence: It swallows small animals whole and with little effort, suggesting that its food sources are likely slow or easy to catch.

Inference 1: _____

Evidence: _____

Inference 2: _____

Evidence: _____

Exercise 2

Read the text about capybaras. Some ideas are stated clearly in the text, while others must be inferred or are not supported by the text. Decide whether each statement is **TRUE**, **FALSE**, or **NOT IMPLIED**.

- **TRUE** – clearly stated in the text
- **FALSE** – clearly contradicted by the text
- **NOT IMPLIED*** – not stated and cannot be inferred from the text



***Did you know?** When a statement is **Not implied**, it means the idea is not stated in the text, and we cannot logically infer it from the information given. Do NOT use your own background knowledge. Choose *Not implied* if the text does not give enough evidence, even though the idea sounds possible.



The capybara (*Hydrochoerus hydrochaeris*) is a giant rodent native to South America. It is the largest living rodent and a member of the genus *Hydrochoerus*. Capybaras are social animals, forming family units of 10–30 animals, although group size often depends on the environment. Thus, during the dry season, when the animals gather at shrinking pools, temporary groups of up to 100 individuals can

be observed. A typical family group of capybaras consists of one dominant male, one or more subordinate males, one or more related females as well as offspring of different ages. In contrast, some males tend to be more solitary. Adult individuals of the group participate in defending their territory against outsiders, scent-marking their range. Being crepuscular, capybaras spend the daytime hours resting and are active in the morning and evening. However, in areas where humans threaten them, they usually tend to be nocturnal instead. When threatened, these animals are known to flee, either running over land or diving into the water.

Adapted from: animalia.bio

Statements

- _____ 1. Capybaras depend on water as part of their natural environment.
- _____ 2. Capybaras usually live alone and avoid social interaction.
- _____ 3. Capybaras may change their daily activity patterns when humans threaten them.
- _____ 4. All male capybaras live separately from family groups.
- _____ 5. Large capybara groups during the dry season suggest that water becomes scarce.
- _____ 6. Capybaras can recognize members of their family group by smell.

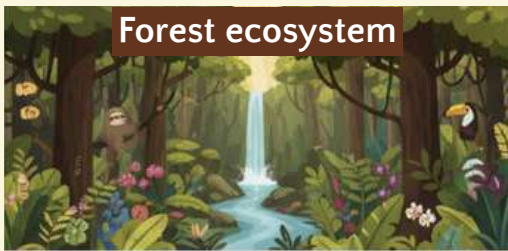
READING

Reading Text 1

Warm-up activity 1

Match the images of the major terrestrial ecosystems to the correct descriptions.

Many plants and animals live on land, where conditions such as temperature, rainfall, and soil affect how living things survive. These land-based systems are called **terrestrial ecosystems**.



Forest ecosystem

A. This ecosystem occurs in regions with extremely low rainfall—usually less than 25 cm per year—leading to very limited plant life. It experiences dramatic changes in temperature and climate. There are areas of this type that are extremely hot as well as regions that are extremely cold.



Grassland ecosystem

B. This type of ecosystem is dominated by tall plants and thick undergrowth. It covers a large portion of the Earth's land area and can be either very dense or more open depending on how closely the plants grow. It includes environments such as tropical regions with heavy rainfall and colder regions with cone-bearing trees.



Desert ecosystem

C. This ecosystem exists in places with long, harsh winters and short, cool summers. It is known for being a difficult environment for life, with very low precipitation that usually falls as snow. It appears in high-latitude regions as well as high-mountain areas.



Tundra ecosystem

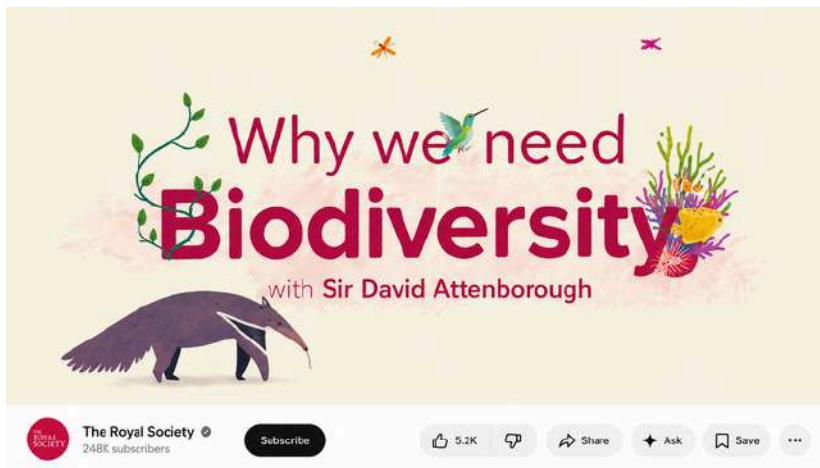
D. This ecosystem is known for wide open spaces mostly covered by short plants rather than tall ones. It usually appears in places that can support some vegetation, but not enough water or nutrients for large plants to grow. It is often considered an intermediate stage of ecological development and, over long periods, may gradually transform into a more tree-dominated environment.

Can You Guess?

- Which ecosystem do you think is the most challenging for animals to survive in? Why?
- Which ecosystem might change the fastest if global temperatures rise?
- Which ecosystem would be the hardest for humans to live in?

Let's Watch

Why we need biodiversity with Sir David Attenborough



[The Royal Society: Why we need biodiversity.](#)

After watching:

- What are some of the major causes that affect biodiversity?
- What can we do to help preserve biodiversity in a more sustainable way?

Warm-up activity 2

Match the words (A-J) with their meanings (1-10).

A. Keystone species

B. Under siege

C. Stabilize

D. Primate

E. Deforestation

F. Habitat

G. Unsustainable

H. Indigenous

I. Overlap

J. Threats

- _____ 1. Cutting down or clearing large areas of forest
- _____ 2. A type of mammal such as monkeys and apes
- _____ 3. Cannot continue for long without causing damage
- _____ 4. An animal whose role is so important that an ecosystem depends on it
- _____ 5. Things that can cause harm or danger
- _____ 6. To make something steady or balanced
- _____ 7. A place where a plant or animal naturally live
- _____ 8. When two areas or situations share the same space
- _____ 9. Being attacked or pressured from many sides
- _____ 10. Originally from a place; naturally belonging to a region



WHY THE AMAZON RAINFOREST MATTERS

Did you know?

- The Amazon has more species of primate than anywhere else on Earth.
- You can find more types of ant on one tree in the Amazon than you can in some whole countries.
- 47 million people live in the Amazon, including around 2.2 million **indigenous** people, speaking around 300 different languages.

[1] South America's Amazon contains nearly a third of all the tropical rainforests left on Earth. Despite covering only around 1% of the planet's surface, **(A)** _____. It is the stronghold of jaguars and river dolphins, with over 70% of jaguars living in the Amazon. This place is the main hope for the species' long term survival.

[2] Research shows that, on average, a 'new' species of animal or plant is being discovered in the Amazon every other day. **(B)** _____. This precious ecosystem is under increasing **threat** from huge-scale farming and ranching, infrastructure and urban development, unsustainable logging, mining and climate change.

[3] The Amazon is of vital importance because people around the world, as well as locally, depend on the rainforest. Not just for food, water, wood and medicines, but to help **stabilize** the climate, 150–200 billion tons of carbon is stored in the Amazon. (C) _____.

[4] The Amazon is **under siege** like never before. **Deforestation** and fires remain dangerously high, and protected areas and indigenous lands face increasing threats. It needs our help more than ever. We cannot tackle the climate crisis without the Amazon's vital life-sustaining role.



Adapted from a photo by Karine Aigner

[5] Two keystone species of the Amazon, the jaguar and the river dolphin, move across wide areas that span several countries. To help them survive, their **habitats** must stay connected and protected. (D) _____. A recent study led by the World Wide Fund for Nature (WWF) brought these two areas together by identifying regions where high jaguar populations **overlap** with areas rich in migratory freshwater species, including river dolphins.

[6] This approach helps scientists determine where new protected areas would be most effective and where development projects, such as dams or roads, should be avoided. Protecting these key regions helps maintain healthy forests, free-flowing rivers, and stable food webs.

Reading Activity 1

Read Reading Text 1. Choose the sentence (1-4) that best fits each blank in the text (A-D).

1. The trees in the Amazon also release 20 billion tons of water into the atmosphere each day, playing a critical role in global and regional carbon and water cycles.
2. However, conservation planning for land and freshwater ecosystems is often done separately.
3. However, tragically, because huge parts of the rainforest are being destroyed so quickly, we may never know all the riches it holds.
4. The Amazon rainforest is home to 10% of all known wildlife species – and probably many that we do not know about yet.

Reading Activity 2

Answer the following questions based on Reading Text 1.

1. What is the main idea of the text?
 - A) The Amazon rainforest is important mainly because it contains many newly discovered species.
 - B) The Amazon plays a key role in supporting biodiversity and regulating global systems, but this role is increasingly threatened.
 - C) Scientific research in the Amazon focuses on protecting keystone species such as jaguars and river dolphins.
 - D) Environmental problems in the Amazon are largely caused by climate change and natural disasters.
2. The text says a new species is discovered in the Amazon every other day. What can we infer from this?
 - A) Scientists have fully documented all Amazon wildlife.
 - B) The Amazon still contains many unknown species.
 - C) Wildlife discovery in the Amazon is slowing down.
 - D) All new species are large animals.

3. In Paragraph [2], the text mentions large-scale farming and development destroying the rainforest. What can we infer about future biodiversity if this continues?
- A) Biodiversity will remain stable.
 - B) More species will move to cities for survival.
 - C) Many species may disappear before they are even discovered.
 - D) The rainforest will grow back naturally and quickly.
4. In Paragraph [4], the text says the Amazon is “under siege like never before.” What can we infer from this expression?
- A) The Amazon has always been completely safe.
 - B) The rainforest is currently experiencing fewer problems.
 - C) The situation is exaggerated and not a real concern.
 - D) The threats to the Amazon today are more severe than in the past.
5. The study links jaguar habitats with areas rich in migratory freshwater species. What does this suggest about conservation?
- A) Land and river ecosystems affect each other.
 - B) Protecting rivers does not help land animals.
 - C) Jaguars only live near water.
 - D) Conservation efforts should focus only on aquatic animals.

READING

Reading Text 2

Warm-up activity

Design an organism that lives in an extreme deep-sea environment.

Your organism must survive:

- Complete darkness
- Extreme water pressure
- Very cold temperatures

Instructions:

1. Draw a sketch of your organism below.



2. Describe:

- How it gets energy:

- Where it lives:

- One adaptation that helps it survive:

SCIENTISTS SAY THEY CRUISED THE OCEAN IN A DEEP-SEA SUBMERSIBLE AND CAME ACROSS AN UNDISCOVERED ECOSYSTEM

Adapted from <https://edition.cnn.com/2025/08/11/science/deep-sea-discovery-hadal-trenches>

[1] Scientists have **uncovered** remarkable ecosystems in the extreme depths of the ocean, nearly 10,000 metres below the surface. These deep-sea trenches, including the Kuril–Kamchatka and Aleutian regions, are among the least explored parts of the planet, yet they host dense communities of marine life thriving in complete darkness. Using a manned **submersible**, researchers observed large colonies of tubeworms, clams, mollusks, crustaceans, sea cucumbers, and other invertebrates. These communities are **striking** for their size, density, and diversity, demonstrating that life can flourish even under intense pressure and near-freezing temperatures.



[2] Unlike surface ecosystems that rely on sunlight for energy, these deep-sea organisms survive through chemosynthesis. Microbes in the sediment convert chemicals such as methane and hydrogen sulfide into energy, which tubeworms and mollusks then use to grow and **sustain** themselves. This process forms the foundation of a food web completely

independent of sunlight. Observations revealed tubeworms reaching up to 30 centimetres in length and dense beds of clams and other invertebrates, highlighting the **productivity** and complexity of these remote habitats.

[3] These discoveries challenge earlier assumptions that life at such depths primarily depends on organic material sinking from the ocean surface. The evidence shows that entire ecosystems can exist using energy produced locally through chemical reactions. This demonstrates the adaptability of life in extreme environments and suggests that deep-sea trenches may be far more biologically active than previously thought.



tubeworms



clams



mollusks



crustaceans



sea cucumber

[4] Beyond revealing **astonishing** biodiversity, the findings have important implications for Earth's global systems. Deep-sea trenches may play a significant role in storing and cycling carbon and methane, influencing climate regulation in ways scientists are only beginning to understand. The discovery also raises **intriguing** possibilities for studying life in extreme conditions, which could inform research on other planets or moons where sunlight is **scarce** but chemical energy might support ecosystems.

[5] These deep-sea ecosystems remind us that much of our planet remains unexplored. Life has found ways to adapt to environments once considered **uninhabitable**, surviving under crushing pressure, near-freezing temperatures, and complete darkness. The deep-sea trenches stand as evidence of the **resilience** and **ingenuity** of life on Earth, offering new insights into biology, geology, and the interconnectedness of global ecosystems.



Reading Activity 1

Answer the following questions based on Reading Text 2.

1. What makes the deep-sea trenches described in the passage especially remarkable?
 - A) They are located close to coastal regions.
 - B) They are completely barren and lack marine organisms.
 - C) They receive limited sunlight and moderate temperatures.
 - D) They host diverse ecosystems despite extreme conditions.
2. How do deep-sea organisms obtain energy without sunlight?
 - A) By storing energy from volcanic heat
 - B) By relying on organic matter sinking from the surface
 - C) Through chemosynthesis carried out by microbes
 - D) By feeding on plants that grow on the ocean floor
3. Which of the following organisms was observed living in these deep-sea ecosystems?
 - A) Sharks and whales
 - B) Seaweed and algae
 - C) Coral reefs and tropical fish
 - D) Tubeworms, clams, and crustaceans
4. What earlier assumption about deep-sea life is challenged by these discoveries?
 - A) Deep-sea animals cannot survive cold temperatures.
 - B) Life in the deep sea depends on surface-derived organic material.
 - C) Deep-sea trenches are geologically inactive.
 - D) Microbes cannot survive under high pressure.

Reading Activity 2

*Read **Paragraphs 1-2** of Reading Text 2 and answer each question using your own inferences. Do not copy sentences directly from the text.*

1. Why might scientists have been surprised to find dense communities of organisms in the deep-sea trenches?

2. What can you infer about the role of chemosynthetic microbes in the survival of other deep-sea organisms?

3. Why do the tubeworms' size and the density of clams suggest that these ecosystems are highly productive?

4. What does the discovery of these ecosystems imply about life's ability to adapt to extreme environments?

5. Why might researchers choose to continue exploring trenches after these findings?

Reading Activity 3

Read Paragraphs 3-5 of Reading Text 2 and decide whether it is True (T) or False (F) based on information you can infer from the passage. Also, explain why each statement is True or False.

- _____ 1. The discoveries suggest that deep-sea ecosystems are more self-sustaining than scientists once believed.

Explanation: They rely on locally produced chemical energy, not surface material.

- _____ 2. Deep-sea trenches likely have no influence on Earth's climate systems.

Explanation: _____

- _____ 3. The findings imply that life could not survive on planets or moons without sunlight.

Explanation: _____

- _____ 4. Scientists fully understand how deep-sea trenches function and affect global systems.

Explanation: _____

- _____ 5. The deep-sea discoveries indicate that extreme environments can still support complex ecosystems.

Explanation: _____

Discussion

Imagine you are a scientist who participated in the deep-sea exploration described in Reading Text 2.

Discuss the following questions with your friends.

- What surprised you most about the discovery?
- Why is this discovery important?
- What questions do you still have?



LANGUAGE FOCUS

Relative Clauses

What is a relative clause?

A relative clause is one kind of dependent clause. It has a subject and a verb but cannot stand alone as a sentence. It is sometimes called an “adjective clause” because it functions like an adjective by giving more information about a noun. A relative clause always begins with a “relative pronoun,” which substitutes for a noun, a noun phrase, or a pronoun when sentences are combined. (<https://writingcenter.unc.edu>)

Writers often need to explain **what something is, which one they mean, or why it is important**. Relative clauses allow writers to add this extra information clearly and efficiently within a single sentence. Instead of using many short sentences, relative clauses help connect ideas smoothly, making the writing more precise, informative, and easier to follow. For this reason, relative clauses are commonly used in texts about science, ecosystems, and research, such as the readings in this unit. The relative pronouns are:

Pronoun	Stands For	Uses
who	people	substitutes for subject or object nouns/pronouns (he, she, we, they)
whom	people	substitutes for object nouns/pronouns (him, her, us, them) (Note: <i>whom</i> is more formal and often replaced by <i>who</i> in spoken English.)
whose	people or things	substitutes for possessive nouns/pronouns (his, hers, ours, theirs)
that	people or things	can be used for either subject or object can only be used in restrictive relative clauses (see below)
which	things	can be used for either subject or object can be used in non-restrictive relative clauses can also be used in restrictive relative clauses, though some people don't like this use

Adapted from <https://writingcenter.unc.edu>

Notice the following examples and how a relative clause can be used to combine two ideas into one sentence.

Example 1

- The Amazon rainforest stores a huge amount of carbon.
- The Amazon rainforest helps regulate the global climate.

Combined

- *The Amazon rainforest, **which stores a huge amount of carbon**, helps regulate the global climate.*

Example 2

- Jaguars are a keystone species.
- Jaguars play an important role in maintaining ecosystem balance.

Combined

- *Jaguars, **which play an important role in maintaining ecosystem balance**, are a keystone species.*

Example 3

- Scientists discovered ecosystems in deep-sea trenches.
- These ecosystems exist without sunlight.

Combined

- *Scientists discovered ecosystems in deep-sea trenches **that exist without sunlight**.*

Example 4

- River dolphins live in freshwater systems.
- These systems are threatened by dams and pollution.

Combined

- *River dolphins live in freshwater systems **that are threatened by dams and pollution**.*

Example 5

- The Amazon is home to many Indigenous communities.
- These communities depend on the forest for survival.

Combined

- *The Amazon is home to many Indigenous communities **who depend on the forest for survival**.*

Types of Relative Clauses

1. Restrictive Relative Clauses

A restrictive relative clause gives essential information about a noun. It tells us which person or thing we are talking about, and without this information, the meaning of the sentence would be unclear or incomplete. In other words, the relative clause restricts the meaning of the noun by identifying it more precisely. Restrictive relative clauses are not separated by commas. They are closely connected to the noun they describe. Restrictive relative clauses are commonly used to define terms, identify groups, and specify important details.

Relative pronoun	Example
who	<i>Students who study regularly usually perform better on exams.</i>
whom	<i>The teacher whom the students respect has many years of experience.</i>
whose	<i>The researcher whose work influenced the field received an award.</i>
that	<i>The book that explains the theory clearly is very popular.</i>
which	<i>The device which controls the system needs to be updated.</i>

2. Non-restrictive Relative Clauses

A non-restrictive relative clause gives extra, non-essential information about a noun. The information is additional and not necessary to identify which person or thing we are talking about. If the relative clause is removed, the sentence is still clear and complete.

Non-restrictive relative clauses are always separated by commas. In writing, they are often used to add background information, explanations, or comments about something that is already clearly identified.

Relative pronoun	Example
who	<i>My professor, who has published many articles, is speaking at the conference.</i>
whom	<i>The author, whom I met last year, signed my book.</i>
whose	<i>The student, whose presentation won first prize, received a scholarship.</i>
that	<i>CANNOT be used as a relative pronoun</i>
which	<i>The laptop, which was very expensive, stopped working after a year.</i>



Note: In non-restrictive relative clauses, the information is extra and not necessary to identify the noun. Because of this, English uses “**which**” to signal that the clause is giving additional information. The relative pronoun “**that**” is generally used only when the information is essential. Since non-restrictive clauses give non-essential information, “**that**” is **NOT** used in this type of clause.

3. Reduced Relative Clauses

A reduced relative clause is a shortened form of a relative clause. It is used when the writer wants to make the sentence more concise and natural. The meaning stays the same, but unnecessary words are removed.

Reduced relative clauses are commonly used when the relative clause describes a noun and the meaning is already clear from context. Reduced relative clauses are formed from subject relative clauses. This means only relative pronouns that function as **subjects** can be reduced.

Relative pronoun	Example
who	The students <u>who are preparing for the exam</u> feel stressed. → <i>The students preparing for the exam feel stressed.</i> The scientist <u>who discovered the species</u> published a report. → <i>The scientist discovering the species published a report.</i>
whom	<i>CANNOT be reduced</i> The person whom I met yesterday is my neighbor. ✗ *The person met yesterday is my neighbor. (incorrect) Correct alternative (object pronoun omitted, not reduced): → <i>The person I met yesterday is my neighbor.</i>
whose	<i>CANNOT be reduced</i> The student whose laptop was stolen reported the incident. ✗ *The student laptop stolen reported the incident (incorrect) (Whose shows possession and does not follow the patterns needed for reduction.)
that	The book <u>that is written for beginners</u> is popular. → <i>The book written for beginners is popular.</i> The workers <u>that live near the site</u> were interviewed. → <i>The workers living near the site were interviewed.</i>
which	The device <u>which is used in the experiment</u> is very sensitive. → <i>The device used in the experiment is very sensitive.</i> The article <u>which explains the theory</u> is easy to read. → <i>The article explaining the theory is easy to read.</i>

Exercise 1

Combine each pair of sentences into one sentence using a relative clause.

1. The article discusses climate change.
The article was published last year.

2. She is the professor.
The professor's research focuses on language policy.

3. I spoke to a student.
I had met the student during orientation.

4. The device was expensive.
The device was designed for medical use.

5. They interviewed the candidates.
The candidates were shortlisted for the position.

Exercise 2

Each sentence below contains a full relative clause. Rewrite each sentence using a reduced relative clause.

1. The report **that was submitted yesterday** contains several errors.

2. The student **who is sitting near the window** is absent today.

3. The lecturer **who was invited to speak at the conference** specializes in discourse analysis.

4. The policy **which was introduced in 2020** remains controversial.

5. She adopted a dog **that was rescued from a local shelter**.

WRITING



Writing Errors

Clear and accurate writing is essential for communicating ideas effectively, especially in academic writing. However, students often struggle with common sentence-level errors, including comma splices, run-on sentences, and sentence fragments. These mistakes usually occur when writers have strong ideas but do not clearly show how those ideas connect, or when sentences are left incomplete. Understanding how these mistakes occur and learning how to correct them help writers express their thoughts more clearly, logically, and professionally.

Comma Splice

A **comma splice** occurs when **two independent clauses** (complete sentences) are joined only by **a comma**, without a coordinating conjunction (for, and, nor, but, or, yet, so) or proper punctuation.

Why is it incorrect?

Each independent clause can stand alone as a sentence. A comma alone is too weak to join independent clauses.

✗ Incorrect Examples (Comma Splices)	✓ Correct Ways to Fix a Comma Splice
The coral reef supports thousands of species, it is one of the most diverse ecosystems on Earth.	1. Add a coordinating conjunction. <i>The coral reef supports thousands of species, and it is one of the most diverse ecosystems on Earth.</i>
Wolves hunt in packs, they rely on cooperation to survive.	2. Use a semicolon. <i>Wolves hunt in packs; they rely on cooperation to survive.</i>
Birds migrate long distances, the journey requires enormous energy.	3. Separate into two sentences using a full stop. <i>Birds migrate long distances. The journey requires enormous energy.</i>

In narrative paragraph writing, students often repeat the mistake of comma splices, which can weaken the flow and clarity of their stories. When ideas are linked only by a comma instead of proper punctuation or conjunctions, the writing may sound rushed or confusing. Because narratives frequently describe actions and events happening in sequence, students may be tempted to join many complete thoughts together in one sentence. This habit increases the likelihood of comma splice errors. The exercises below are designed to help students identify, correct, and avoid comma splices by practicing how to separate ideas clearly and connect them using appropriate punctuation or linking words.

Writing Activity 1

Rewrite each sentence to fix the comma splice. Use a period, a conjunction, or a semicolon.

Incorrect Sentences (Comma Splices)	<u>Revised Sentences using a period, conjunction, or semicolon</u>
1. She waited for his reply, no message arrived.	
2. He finished his work early, he decided to go for a walk.	
3. The house felt empty, everyone had gone out.	
4. He practiced his speech all evening, his confidence slowly faded.	

Writing Activity 2



Choose the best revision.

1. She finished her homework late, she felt exhausted.
 - A) She finished her homework late she felt exhausted.
 - B) She finished her homework late, and feeling exhausted.
 - C) She finished her homework late, she exhausted.
 - D) She finished her homework late, and she felt exhausted.
2. He checked his phone repeatedly, no new messages appeared.
 - A) He checked his phone repeatedly; no new messages appeared.
 - B) He checked his phone repeatedly, appearing no new messages.
 - C) He checked his phone repeatedly no new messages appeared.
 - D) He checked his phone repeatedly, no messages.
3. The meeting ended early, everyone stayed silent.
 - A) The meeting ended early everyone stayed silent.
 - B) The meeting ended early, staying silent.
 - C) The meeting ended early, but everyone stayed silent.
 - D) The meeting ended early, everyone.
4. She smiled at her friends, she felt nervous inside.
 - A) She smiled at her friends she felt nervous inside.
 - B) She smiled at her friends; she felt nervous inside.
 - C) She smiled at her friends, but feeling nervous inside.
 - D) She smiled at her friends, she nervous inside.
5. He woke up before sunrise, the house was still asleep.
 - A) He woke up before sunrise the house was still asleep.
 - B) He woke up before sunrise, sleeping house still.
 - C) He woke up before sunrise, and the house was still asleep.
 - D) He woke up before sunrise, the house.

Run-on Sentences



A run-on sentence occurs when two or more independent clauses are joined with no punctuation or conjunction at all.

Why is it incorrect?

The reader cannot clearly see where one idea ends and another begins.

✗ Incorrect Examples (Run-ons)	✓ Correct Ways to Fix a Run-on Sentence
Elephants have strong social bonds they mourn their dead.	1. Add punctuation • <i>Elephants have strong social bonds.</i> They mourn their dead.
Rainforests regulate the global climate they absorb large amounts of carbon dioxide.	2. Add a conjunction • <i>Rainforests regulate the global climate because they absorb large amounts of carbon dioxide.</i>
Predators control prey populations this maintains balance in ecosystems.	3. Use a semicolon <i>Predators control prey populations</i> ; this maintains balance in ecosystems.

As you can see, the methods for fixing run-on sentences are very similar to those used for correcting comma splices. Both require careful attention to punctuation and conjunctions to make sentences clear and readable. Now, let’s practice applying these techniques so you can spot and fix these mistakes confidently in your own writing.

Writing Activity 3



For each sentence, decide whether it is a run-on (RO) or a complete correct sentence (C). If it's a run-on, rewrite it correctly.

Sentences	C or RO and revisions
1. I wanted to join the art club I didn't know anyone there yet.	
2. She carefully prepared her speech she hoped everyone would understand her ideas.	
3. After school, I went to the library and studied for two hours.	
4. He stayed up late watching the series he had an important meeting the next morning.	
5. She felt anxious before the interview, but she reminded herself to stay calm.	
6. The sun was shining brightly we decided to have a picnic in the park.	
7. She received an email from her friend she immediately replied with excitement.	
8. I finished reading the novel; it was full of surprising twists and interesting characters.	
9. They planned to go hiking, but the rain forced them to stay home instead.	
10. We visited the science museum yesterday we watched a fascinating demonstration about space.	

Sentence Fragments



A fragment is an incomplete sentence. It may be missing:

- a subject
- a verb
- a complete idea

Fragments often appear when dependent clauses or phrases are mistakenly punctuated as sentences.



Note: **Dependent clauses** are groups of words that **contain a subject and a verb** but **do not express a complete idea**. Because they are incomplete, they **cannot stand alone as a sentence**. They must be connected to an **independent** clause to form a complete sentence.

Independent Clause	Dependent Clause
✓ Expresses a complete idea. ✓ Can stand alone as a sentence.	✗ Does not express a complete idea. ✗ Cannot stand alone.

✗ Incorrect Examples (Fragments)	Why these are fragments	✓ Corrected Versions
Because penguins cannot fly.	Dependent clause, no main clause	<u>Because</u> penguins cannot fly, they are excellent swimmers.
Living in the Arctic with thick fur and layers of fat.	Participial phrase, no subject or main verb	<u>Polar bears survive by</u> living in the Arctic with thick fur and layers of fat.
Which helps plants survive drought conditions.	Relative clause, incomplete thought	<u>Many floras have deep roots</u> which help plants survive drought conditions.

Writing Activity 4



Each item is a sentence fragment. Rewrite it to make a complete sentence using your imagination and creativity. You may:

- *add a main clause*
- *connect it to another sentence*
- *rewrite it as a full sentence*

1. **Fragment:** Because I had never travelled alone before.

Complete Sentence: _____

2. **Fragment:** After the storm finally passed.

Complete Sentence: _____

3. **Fragment:** Although I tried to stay calm.

Complete Sentence: _____

4. **Fragment:** Standing alone at the finish line.

Complete Sentence: _____

5. **Fragment:** Remembering how far I had come.

Complete Sentence: _____

6. **Fragment:** When mistakes became opportunities instead of setbacks.

Complete Sentence: _____

7. **Fragment:** Which taught me the value of patience.

Complete Sentence: _____

8. **Fragment:** While everyone else seemed confident.

Complete Sentence: _____

9. **Fragment:** The moment of relief after weeks of stress.

Complete Sentence: _____

10. **Fragment:** Feeling nervous but strangely excited at the same time.

Complete Sentence: _____

Coherence in Narrative Paragraph Writing



“Coherence is a connection between thoughts, opinions, and ideas in the paragraph.”

Writing a paragraph is like writing a story. A crucial aspect of this is making sure that everything in the story makes sense. A coherent paragraph contains sentences that flow in a logical manner with clear transitions of ideas. A coherent paragraph does not simply lay down the facts, but it organizes them, creating a logical argument that makes sense from one idea to the next. Paragraph coherence means that sentences are logically ordered, and clear transitions exist to assist in the sentence arrangement. These are the important tools that make a paragraph an effective one.

In a **narrative paragraph**, coherence helps the reader easily follow **the sequence of events, understand the emotions, and see how the story develops from beginning to end.**

Even if sentences are grammatically correct, a paragraph can feel confusing if it lacks coherence.

Why Coherence Is Important in Narratives

- Helps readers follow the storyline
- Makes events feel natural and believable
- Strengthens emotional impact
- Creates a clear beginning, climax, and resolution

Techniques to Achieve Coherence

1. Clear Chronological Order

Narratives usually follow **time order**. Events should be told in the order they happened.

✗ Incoherent:

I felt relieved. I ran to the bus stop. I realized my bag was missing.

✓ Coherent:

I realized my bag was missing, so I ran to the bus stop. Later, I felt relieved when I found it.

Tip: Use time markers like first, later, minutes later, finally.

2. Consistent Point of View and Tense

Maintaining a consistent point of view and consistent verb tense is essential for coherence in narrative writing. When a writer suddenly changes **who is telling the story (point of view) or when the events are happening (tense)**, the reader may become confused or distracted.

2.1 Consistent Tense

Most narratives about past experiences are written in the **past tense**. Once you choose a tense, you should **stay with it**, unless there is a clear reason to change (for example, when describing a general truth or a present reflection).

Why tense shifts are confusing

Tense shifts make events seem as if they are happening at different times without explanation.

✗ Incorrect:

I panic when I noticed my wallet was gone.

→ “panic” is present tense, while “noticed” is past tense.

✓ Correct:

I panicked when I noticed my wallet was gone.

More Examples:

✗ Incorrect: I run back to the bus stop and realized I was too late.

She feels nervous when she opened the door.

✓ Correct: I ran back to the bus stop and realized I was too late.

She felt nervous when she opened the door.

Acceptable Tense Change (Advanced Awareness)

A tense change is acceptable when:

- reflecting on the present
- stating a general truth

Example:

I panicked when I noticed my wallet was gone. **Since then, I always double-check my belongings.**

2.2 Consistent Point of View

Point of view refers to who is telling the story:

- **First person:** I, me, my
- **Third person:** he, she, they

Narratives should not shift between points of view unless clearly intended.

Why point-of-view shifts are confusing

They make it unclear whose thoughts or experiences are being described.

✗ Incorrect:

I **ran** to the station, and **you start** to feel helpless.

✓ Correct:

I **ran** to the station, and I **started** to feel helpless.

More Examples:

✗ **Incorrect:** **She** forgot her phone, and **you** can imagine how scared she felt.

I **searched** everywhere, and **they feel** hopeless.

✓ **Correct:** **She forgot** her phone **and felt** terrified.

I **searched** everywhere **and felt** hopeless.

Writing Activity 5



Each sentence contains a tense or point-of-view error. Rewrite it correctly.

Sentences with tense or point-of-view errors	Rewritten sentences
1. I feel relieved when I found my keys under the chair.	
2. She smiles nervously and dropped her phone.	
3. I waited quietly, and you start feeling frustrated.	
4. They are excited when the announcement was made.	
5. He worries about the situation and felt uncertain.	

Writing Activity 6



The paragraph below has tense and point-of-view shifts. Rewrite it to make the writing consistent.

Paragraph:

I walk along a dark street and hear footsteps behind me. My hands are shaking, and you start looking over your shoulder. I quicken my pace and turn into a narrow alley. A stranger follows closely and speaks loudly. In the end, I feel relieved when the noise faded away.

Re-written Paragraph:

3. Smooth Sentence Structure

Smooth sentence structure means that ideas flow naturally from one to the next. Instead of sounding abrupt or robotic, the writing feels connected, logical, and easy to read.

✗ Choppy writing often:	✓ Smooth writing:
• Uses many short sentences in a row • Repeats the same subject • Sounds rushed or unnatural	→ Connects related ideas → Shows relationships (time, cause, feeling, result) → Varies sentence length without confusion

When Should Sentences Be Combined?

Combine sentences only when:

- The ideas are closely related
- One sentence explains or supports another
- Actions happen at the same time or in sequence

*Do **not** combine sentences if the ideas are unrelated.*

Common Ways to Smooth Sentences

3.1 Using Conjunctions (and, but, so)

Purpose: To join equal ideas or actions.

Choppy: I was tired. I kept working.

Smooth: I was tired, **but** I kept working.

***Explanation:** The conjunction **but** shows contrast between being tired and continuing to work.*

3.2 Using Subordinate Clauses (when, because, while, as)

Purpose: To show time, reason, or background information.

Choppy: The lights went out. Everyone screamed.

Smooth: **When** the lights went out, everyone screamed.

***Explanation:** The word **when** shows that the actions happened at the same time.*

3.3 Using -ing (Participial) Phrases

Purpose: To show simultaneous actions or feelings.

Choppy: She sat alone. She waited. She felt nervous.

Smooth: She sat alone, **waiting** nervously.

Explanation: The *-ing phrase* combines action and feeling smoothly without repeating the subject.

3.4 Combining Description Into One Sentence

Purpose: To avoid repeating “It was...” or “There was...”

Choppy: The hallway was long. It was dark. It was silent.

Smooth: The **long, dark hallway** was silent.

Explanation: Adjectives can be grouped before the noun to create a stronger image.

3.5 Showing Cause and Effect

Purpose: To explain why something happened.

Choppy: He missed the bus. He woke up late.

Smooth: He missed the bus **because** he woke up late.

Explanation: The word **because** clearly connects the cause and the result.

Writing Activity 7



Choose the sentence that sounds the smoothest and most natural.

1.
 - A) I entered the room. I felt nervous. People stared.
 - B) I entered the room, feeling nervous as people stared.
 - C) I entered the room feeling nervous people stared.
2.
 - A) The rain stopped. We continued hiking.
 - B) Because the rain stopped we continued hiking.
 - C) When the rain stopped, we continued hiking.
3.
 - A) She smiled. She received praise. She felt proud.
 - B) She smiled and she received praise and she felt proud.
 - C) She smiled after receiving praise, feeling proud of herself.

Writing Activity 8



Rewrite each set of sentences into one smooth sentence. Use conjunctions, time words, or -ing phrases when appropriate.

Choppy sentences	Rewritten sentences
1. I waited for the results. My heart beat fast. I felt apprehensive.	
2. The child reached the stage. The audience grew quiet. Everyone watched closely.	
3. She missed the call. She checked her phone later. She felt disappointed.	
4. The sun rose. The streets filled with people. The city came alive.	
5. He practiced every day. The performance arrived. He felt confident.	

COMMUNICATION ACTIVITY [5%]

Choose either Communication Activity 1 or Communication Activity 2 to complete.

Communication Activity 1

Warm-up activity: Watch the video clip “[Deep Sea Creatures Exhibit Bioluminescence](#) / [Blue Planet](#) / [BBC Earth](#)” via the link or by scanning the QR Code to access the video clip. As you watch, complete the summary below by filling in each blank with no more than ONE WORD.

SCAN HERE ↗



Even in the deep, dark ocean, some creatures produce their own light, a phenomenon called 1) _____. Deep-sea 2) _____, for example, have lures that glow thanks to 3) _____ living inside them. These lures attract prey toward the anglerfish’s sharp teeth. Anglerfish have multiple lures, and they use them much like 4) _____ use imitation flies, enticing prey such as squid that finds the light 5) _____. This light allows predators to hunt effectively in complete darkness, sometimes capturing meals that their highly extendable stomachs can accommodate.

Deep-Sea Exploration (5%): Work in groups of 3–4 to design a research mission to explore the deep sea. Do some research online about interesting or mysterious deep-sea ecosystems or other aspects, and collaboratively design a mission.



Discuss and agree on all points below.

1. Purpose of the Mission

- What do you want to discover or study? (e.g., chemosynthesis, new species, climate effects)

2. Tools and Equipment

- What equipment will you bring? (e.g., submersible, ROV, cameras, sensors)
- Why do you need each tool?

3. Organisms to Investigate

- Which animals or microbes will you focus on?
- Why are they important?

4. Risks and Challenges

- What difficulties will your team face? (e.g., pressure, darkness, equipment failure)
- How will you deal with them?

5. Expected Scientific Contributions

- What new knowledge could your mission provide?
- How might your findings help science?

Presentation

- Prepare a short 2–3 minute presentation summarizing your expedition plan.
- Be ready to answer questions from your classmates.

Communication Activity 2

Warm Up: Read a success story and complete the task.



This is the first wildlife overpass constructed in Alberta since 2010. The arches are covered with soil and vegetation which ties into the surrounding topography and landscape, a crucial design element that encourages wildlife usage. The project also includes 12 kilometres of exclusion fencing along the highway to funnel wildlife to the overpass and a series of “jump outs” to allow animals who enter the right-of-way to exit safely.

According to the Ontario Nature Centre for Social Innovation, it is estimated that a wildlife-vehicle collision occurs every 38 minutes in Canada, with associated costs reaching up to CAD \$200 million annually. Wildlife-vehicle collisions not only lead to fatalities and serious injuries but also endanger certain species, putting them at risk of extinction and threatening Canada’s biodiversity.

As a solution, wildlife overpasses have been carefully constructed to blend with the surrounding environment. They are often covered in native vegetation to mimic animals’ natural habitats and strategically designed to encourage animal crossings while enhancing road safety.

Adapted from: <https://dialogdesign.ca>

Discuss and agree on all points below.

- What is the main problem in this text?
- How do wildlife overpasses help?
- Which detail is the most surprising or impressive to you? Why?
- Do you think this project is worth the cost? Why or why not?

Conservation Project (5%): Work in small groups of 3-4 to design a simple awareness or conservation project for a terrestrial ecosystem in Thailand. You will then present your project to the class.



Task Guidelines

1. Choose a terrestrial ecosystem in Thailand

- Tropical rainforest (e.g., Khao Sok, Kaeng Krachan)
- Mangrove forests
- Grasslands / savannas
- Mountain/Highland forests
- Dry evergreen forests

2. Identify key issues:

- What threats does this ecosystem face? (e.g., deforestation, tourism pressure, fires, road construction, wildlife collisions, poaching, monocrop farming)
- Which species are potentially affected?

3. Design a mini project and consider the following aspects:

- What problem your project is addressing
- Why it is important
- Who your project will help
- How it works – steps or design
- Expected benefits

4. Prepare a short presentation (2-3 minutes)

- The ecosystem you chose
- The main threats
- Your project idea
- Why it would help protect biodiversity

Please refer to the scoring rubric in Appendix A

UNIT 4 GLOSSARY

Vocabulary	Part of Speech	Meaning in Context	Examples from the text
astonishing	adjective	very surprising	Beyond revealing astonishing biodiversity, the findings have important implications for Earth's global systems.
deforestation	noun	the cutting down of trees in a large area, or the destruction of forests by people	Deforestation and fires remain dangerously high, and protected areas and Indigenous lands face increasing threats.
habitat	noun	the natural environment in which an animal or plant usually lives	To help them survive, their habitats must stay connected and protected.
implication	noun	the effect that an action or decision will have on something else in the future	The findings have important implications for Earth's global systems.
indigenous	adjective	used to refer to the people who originally lived in a place, rather than people who moved there from somewhere else, or to things that relate to these people	47 million people live in the Amazon, including around 2.2 million indigenous people, speaking around 300 different languages.
ingenuity	noun	the skill of thinking, performing, or using things in new ways	The deep-sea trenches stand as evidence of the resilience and ingenuity of life on Earth.
intriguing	adjective	very interesting because of being unusual or mysterious	The discovery also raises intriguing possibilities for studying life in extreme conditions.
overlap	verb	To have some parts that happen at the same time or are the same	A recent study led by the World Wide Fund for Nature (WWF) brought these two areas together by identifying regions where high jaguar populations overlap with areas rich in migratory freshwater species, including river dolphins.

Vocabulary	Part of Speech	Meaning in Context	Examples from the text
productivity	noun	the ability to produce large amounts of something	Observations revealed tubeworms reaching up to 30 centimetres in length and dense beds of clams and other invertebrates, highlighting the productivity and complexity of these remote habitats.
resilience	noun	the quality of being able to return quickly to a previous good condition after problems	The deep-sea trenches stand as evidence of the resilience and ingenuity of life on Earth.
scarce	adjective	not easy to find or get	The discovery [...] could inform research on other planets or moons where sunlight is scarce but chemical energy might support ecosystems.
stabilize	verb	To become fixed or stop changing	Not just for food, water, wood and medicines, but also to help stabilise the climate – 150–200 billion tons of carbon is stored in the Amazon.
striking	adjective	very unusual or easily noticed, and therefore attracting a lot of attention	These communities are striking for their size, density, and diversity, demonstrating that life can flourish even under intense pressure and near-freezing temperatures.
submersible	noun	a type of ship that can travel underwater, especially one that operates without people being in it	Using a manned submersible , researchers observed large colonies of tubeworms, clams, mollusks, crustaceans, sea cucumbers, and other invertebrates.
sustain	verb	to cause or allow something to continue for a period of time	Microbes in the sediment convert chemicals such as methane and hydrogen sulfide into energy, which tubeworms and mollusks then use to grow and sustain themselves.
threat	noun	the possibility that something unwanted will happen, or a person or thing that is likely to cause something unwanted to happen	This precious ecosystem is under increasing threat from huge-scale farming and ranching, infrastructure and urban development, unsustainable logging, mining and climate change.

Vocabulary	Part of Speech	Meaning in Context	Examples from the text
uncover	verb	to discover something secret or hidden	Scientists have uncovered remarkable ecosystems in the extreme depths of the ocean.
under siege	prepositional phrase	If a person or place is under siege, they are experiencing serious and continuous attacks or pressure.	The Amazon is under siege like never before.
uninhabitable	adjective	not suitable to live in	Life has found ways to adapt to environments once considered uninhabitable .

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APPENDIX A

COMMUNICATION ACTIVITY ASSESSMENT GUIDELINES

As this assessment involves a large number of students, consistent application of the rubric is essential to ensure fairness and reliability across all classes. Please use the descriptors below when assessing students' the presentation part of the four communication activities.

Overall performance

Score: 0	Score: 1	Score: 2	Score 3
No attempt or no assessable evidence	Limited performance • Struggle to communicate ideas, presenting short and unclear ideas with limited vocabulary and frequent grammatical errors. • Some long pauses, hesitations or restarts. Overall quite difficult to listen to. • Only read from the script.	Satisfactory performance • Communicate ideas somewhat clearly with somewhat adequate vocabulary range and some grammatical errors. • Generally smooth with some occasional pauses to think. Mostly understandable with some mispronunciations. • Mainly rely on the script.	Strong performance • Communicate well and be able to speak confidently using a wide range of vocabulary accurately with some minor grammatical errors. • Smooth, natural; rarely hesitates and speaks with ease. Easily understood by any listeners. • Occasionally rely on the script.

Completion

Score: 1	Score 2
Partially completed the assigned task, but some key requirements were missing or incomplete.	Fully completed the assigned task according to the instructions.

Note: Between-bands scoring (0.5 and 0.25) is NOT allowed.

APPENDIX B

VIDEO WORKSHEET ASSESSMENT GUIDELINES

As this assessment involves a large number of students, consistent application of the rubric is essential to ensure fairness and reliability across all classes. Please use the descriptors below when assessing students' video worksheets (Units 1, 3, and 4).

Score: 0	Score: 1	Score 2
No credit The work is not submitted, or it is submitted more than one week after the deadline , in which case no credit will be awarded.	Partial completion The work is submitted but contains missing or incomplete sections, or does not fully meet the task requirements.	Satisfactory completion The work is submitted on time, complete, and well-developed. It demonstrates careful attention to the instructions.

Note: Between-bands scoring (0.5 and 0.25) is NOT allowed.

Late Submission Policy:

- There will be a deduction of 1 point if the submission is made **within one week** after the deadline for the video worksheet.
- Worksheets submitted **more than one week after the stated deadline** will receive a **score of 0**, regardless of the quality or completeness of the work.

Score Conversion:

The maximum raw score for all three video assignments is 6 points. The total score will be converted to 5% of the final course grade.