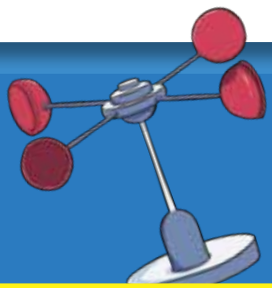
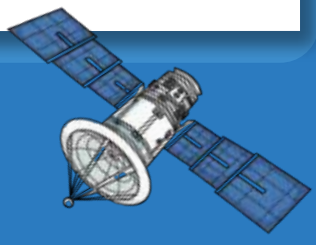
LEVEL C UNIT 7

Monkey Tree
ENGLISH LEARNING CENTER®

READING & SPEAKING

Weather and Climate



Name: _____

Teacher: _____

Date: _____

Part A. Let's Read

The Science of Weather

When you wake up every morning and open your bedroom window, what do you see? Do you see sunny, blue skies? Rain pouring from big grey clouds? Or perhaps, tree branches blowing around in the wind? These are all signs of different weather conditions, which can change from day-to-day.

Weather is the combination of events that take place in our atmosphere each day, and is different all around the world. This difference in weather can be caused by the atmosphere, the Sun, and the seasons. For example, while it is cold and snowy in Canada on Christmas Day, it may be warm and sunny in Australia at the same time. This is due to the difference in the Earth's position relative to the Sun.

The Earth spins on its axis, causing day and night, but also orbits the Sun each year, causing different seasons. Countries in the Northern Hemisphere, like Canada, will be tilting away from the Sun during the months of December to February, thus leading to colder temperatures (winter). Countries in the Southern Hemisphere, like Australia, will be tilting towards the Sun at this time, leading to warmer temperatures (summer).

The weather in a specific area is measured by temperature, precipitation (rain and snow), humidity, and wind. Meteorologists collect this data and use it to predict future weather conditions. They collect this data using a variety of tools, such as thermometers, which measure air temperature anemometers, which gauge wind speed, and barometers, which provide information on air pressure. They also use radars and satellites. They then use this data from the past and present to predict what the weather may be like in the near future.

These weather forecasts help us to make more informed daily decisions, and may even help keep us out of danger. Farmers use weather predictions to help them plan for the planting and harvesting of their crops. Airlines look at local weather conditions to schedule flights and determine flight routes. Can you think of any other ways in which we can use weather forecasts?

Part B. Let's Talk

What is the weather like today?

What is your favorite kind of weather? Why?

Do you think it is useful for meteorologists to predict the weather? Why?

What do you think the weather will be like tomorrow?

Part C. My New Words

Write each word and its definition. Next, write a sentence using the new word.

1

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

2

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

3

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

4

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

5

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

6

Word: _____ noun / verb / adjective / adverb

Definition: _____

_____

Sentence: _____

_____

Part D. Vocabulary Check 1

Find new words in the text that have similar meanings to the following words.

1. flowing

2. guess

3. information

4. large

Part E. Vocabulary Check 2

Write a word that matches each of the following definitions.

1. A mixture of different people or things → _ _ _ _ _ _ _ _ _ _ _ _

2. An imaginary, central line that an object rotates around → _ _ _ _ _

3. A measurement of how much water there is in the air → _ _ _ _ _ _ _ _ _

Part F. Challenge Yourself!

Complete the sentences by filling in the blanks with the words from the word box.

atmosphere • relative • measured • informed • local

1. The _____ food in Hong Kong, like dim sum, is very tasty.

2. Parrots have the biggest brains _____ to body size of all birds.

3. Our teacher _____ us that our class was cancelled today.

4. Pollution causes a lot of damage to the Earth's _____.

5. The nurse _____ the amount of medicine she gave me.

SECTION 2

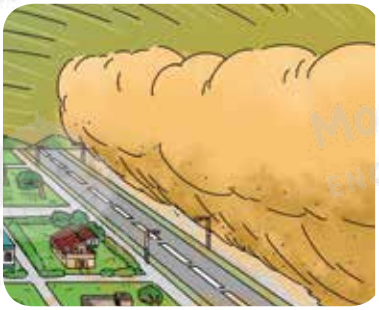
Part A. Let's Learn

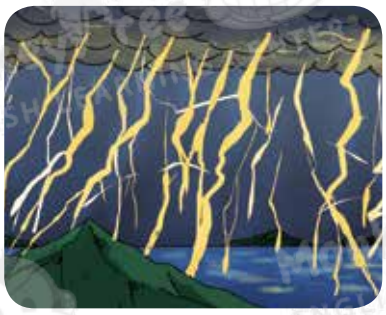
Interesting Weather Conditions

Let's learn more about interesting weather conditions!

Acid rain is a result of air pollution caused by harmful gases being released into the air by cars, power plants and factories. These gases combine with the water and oxygen in the air. When the water in the air comes down in the form of rain, hail, or snow, it carries these harmful gases with it in the form of a acid rain. Acid rain is very damaging to all lifeforms.

Sandstorms happen when large amounts of wind occur in sandy areas, such as deserts. These winds are strong enough to lift the top layer of sand from the ground, and blow it in all directions. Sandstorms can reach heights of up to 15 meters and have wind speeds of at least 40 kilometers per hour. It is very difficult to see anything in a sandstorm.





Catatumbo lightning is unique to Venezuela, where it can only be observed over the mouth of the Catatumbo River, where it empties into Lake Maracaibo. After the first cloud forms, the lightning will start flashing. These strikes occur up to 280 times per hour, for 10 hours per night, and can occur for up to 260 days per year.

Aurora lights are a natural display that can be seen from or above the Earth. They are created when the Earth's magnetosphere is disturbed by solar wind. We can find northern lights at the North Pole, and southern lights at the South Pole. Auroras can only be seen at night because their light is not as strong as the light of day.

Part B. Let's Check

Refer the text, *Interesting Weather Conditions*. Read the statements below and write 'T' for true and 'F' for false.

		True	False
1	Sandstorms are very slow and are not dangerous.		
2	Acid rain is a result of air pollution.		
3	Aurora lights can be seen from anywhere in the world.		
4	Catatumbo lightning only occurs for a short time each year.		
5	Acid rain is not harmful to people.		
6	Sandstorms are caused by very strong winds.		

Part C. Multiple Choice Questions

Refer to the reading, *The Science of Weather*. Circle the letters next to the correct answers.

1. What causes the difference in weather?

a. The atmosphere
b. The Sun
c. Seasons
d. All of the above

2. Which country is in the Southern Hemisphere?

a. Hong Kong
b. Canada
c. Australia
d. None of the above

3. Which tool is used to measure wind speed?

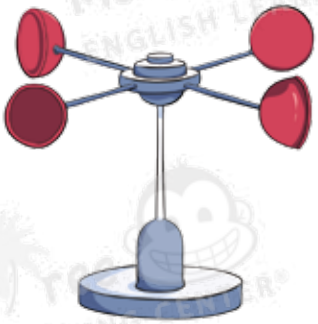
a. Thermometer
b. Barometer
c. Anemometer
d. None of the above

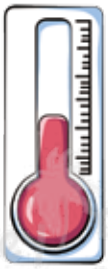
4. What do meteorologists do?

a. Study the atmosphere
b. Study plants
c. Study meteors
d. Study animals

Part D. Challenge Yourself !

Refer to the reading, *The Science of Weather*, and use the clues to complete the crossword puzzle.





Down

1. One half of the Earth (Northern and Southern)
2. To say what you think will happen in the future
3. The circular journey that Earth makes around the Sun
4. Plants, such as fruits and vegetables, grown by farmers

Across

5. The possibility of something bad happening
6. Rain or snow that falls to the ground
7. We use _____ and satellites to gather weather information
8. The term for how hot or cold something is

Part E. Language Focus

Countable and Uncountable Nouns

- **Countable nouns are things that we can count.**
  Example: There are six penguins.
- **Uncountable nouns are things that we cannot count.**
  Example: There is a lot of water.
- **When we want to know the amount of something, we ask 'how many?' for countable nouns and 'how much?' for unaccountable nouns.**
- **We can say exact numbers for countable nouns.**
- **We use words and phrases like a lot of, not much, some, and a little to say how much of an uncountable noun there is.**

Let's practice! Use the words and pictures to ask and answer questions.

1. 

Milk

2. 
Chairs

3. 
Hair

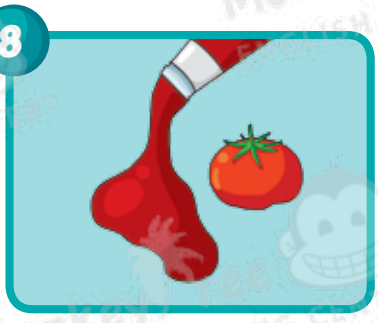
4. 
Chickens

5. 
Food

6. 

Time

7. 
Children

8. 
Ketchup

9. 
Books

SECTION 3

Part A. Let's Read

Climates of the World

When we see the words 'weather' and climate', we might think that they are the same, but they are not. Weather is the change in the Earth's atmosphere that occurs on a daily basis. The weather we experience today could be completely different to the weather we experience tomorrow.

Climate is a pattern of weather that occurs over a long period of time, such as years and centuries, and doesn't change on a daily basis like weather does. For example, if an area has a dry climate where it rarely rains, but one day it does rain, it doesn't mean that this area now has a wet climate, it just means that the weather was rainy for that day.

There are lots of ways that scientists describe different climates. One way is to divide up climates into five categories: tropical, dry, mild, cold, and polar.

Tropical climate areas are characterized by warmer temperatures, high humidity, and lots of precipitation. These areas usually only have two seasons: a wet and a dry season.

Areas with dry climates experience very little precipitation and have wide temperature swings, such as in deserts. The Sun is also very strong in dry climate areas.

Mild climate areas don't have extreme temperatures or precipitation. These areas generally experience all four seasons, and each season has varied weather conditions.

Cold climate areas have warm to cool summers and very cold winters. In the winter, these zones can experience snowstorms, strong winds, and very cold temperatures.

Lastly, in the polar climate zones, it is extremely cold, even in the summer months. These areas are often very windy with very little precipitation. They are found close to the poles, and few animals and plants are found here.

Part B. Let's Talk

How does climate differ from weather?

What sort of climate does Hong Kong have?

Which climate do you think would be the best to live in? Why?

Do you think the climate of an area can change over time? Why?

Part C. Let's Learn the Skill

Classify

- ✓ When you read a text, you may find groups of things that go together.
- ✓ They might look alike or be similar in some other way.
- ✓ For example, we can group shapes, colors, and animals together.
- ✓ When we put things in groups like this, we are **classifying**.
- ✓ When you read a text, think about what things you can **classify**.

Part D. Let's Practice

Complete the following activities as a class.

1. Read the list. Classify each food by writing it in the correct column.

- Apples
- Broccoli
- Chocolate
- Nuts
- Candy
- Soda
- Pizza
- Chicken
- Fries
- Water
- Burgers
- Pumpkin

Healthy	Not healthy

Part E. Let's Classify

Refer to the reading passage, *Climates of the World*, to help you complete the following activities.

1. Read the list below. Classify each characteristic by writing it in the correct column.

- Lots of precipitation
- Very cold and dry
- Mild winters
- High humidity
- Wet and dry seasons

- Few plants and animals
- Four seasons
- Weather changes a lot
- Very windy
- Close to the poles

Tropical Climate	Mild Climate	Polar Climate

2. Look at each picture and identify which climate it is.




_____ _____ _____ _____

3. How did classifying the climates help you understand what you read?

_____

_____

Part F. Challenge Yourself!

Write a word from the text, *Climates of the World*, that matches each definition. Then, find the words in the word search below.

Weather conditions over long periods of time	_ _ _ _ _ _ _
A way that something is done or repeated	_ _ _ _ _ _ _
Periods of 100 years	_ _ _ _ _ _ _ _ _
Not very often	_ _ _ _ _ _
Groups of things that are similar	_ _ _ _ _ _ _ _ _ _
Most unusual or most serious	_ _ _ _ _ _ _

R D O F F I C I A L E C
A E B J A F L N A L X E
R X G Z C M I U F C T N
E C T I M H M P K N R T
L H I K Q X A J B T E U
Y A N D E C T R A T M R
F N J F I O E L S Y E I
C A T E G O R I E S G E
P A T T E R N Q X A T S
P H S C J L G D M R H D

SECTION 4

Part A. Let's Learn

Extreme Weather!

Let's learn some more about extreme weather events!

- Hurricanes are tropical cyclones with winds of 110 kilometers per hour or more that form over the ocean. They are stronger when they are over water, but lose strength when they are over land. The red dot that appears on Jupiter is actually a hurricane that has been going for over 300 years.

- Tornadoes are extremely strong and dangerous storms with winds that move in a circular motion. There is often a long funnel which is narrower at the bottom than the top. A tornado that forms over the water is called a waterspout.

- Hail is frozen precipitation which is produced in clouds during thunderstorms. Hail can causes a lot of destruction, such as breaking windows, denting cars, and damaging roofs. The biggest recorded hailstone was 20.3 centimeters wide and weighed 0.88 kilograms.

- Blizzards are storms characterized by high wind speeds and heavy snow over long periods of time. These two conditions create blowing snow. When a blizzard occurs, it makes driving or walking very dangerous because it is very difficult to see.

Part B. Let's Talk

Which of the weather events do you think is the most dangerous?

Have you ever experienced an extreme weather event?

How are tornadoes different to hurricanes?

Can you think of any other extreme weather events?

Part C. Multiple Choice Questions

Circle the letters next to the correct answers.

1. **Which is a tornado that forms over water?**
   - a. Landspout
   - b. Waterspout
   - c. Seaspout
   - d. None of the above

2. **When are hurricanes at their strongest?**
   - a. When on land
   - b. When over water
   - c. When they start
   - d. None of the above

3. **How long has the hurricane on Jupiter been going on for?**
   - a. 10 years
   - b. 900 years
   - c. 300 years
   - d. 7 months

4. **What characteristics does a blizzard have?**
   - a. Heavy snow & rain
   - b. Heavy snow & high-speed winds
   - c. High temperatures & hail
   - d. Low temperatures & rain

5. **Which of the damage is caused by hail?**

a.

b.

c.

d.

Part D. Written Response Questions

Answer the following questions in full sentences.

1. Why are blizzards so dangerous?

_____

_____

2. Why kind of damage can hailstorms do?

_____

_____

3. What do you think the effect of a tornado would be in Hong Kong?

_____

_____

Part E. Let's Spell

Listen carefully to the words and write them on the lines below.

1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

7. _____ 8. _____

Part F. Let's Present

Create your own country! What type of climate does it have? Are there any extreme weather events that happen there? How do people stay safe during these weather events? Draw a picture of your country and its climate and write a few lines about it. Then, presents it to your class.

Try This at Home!

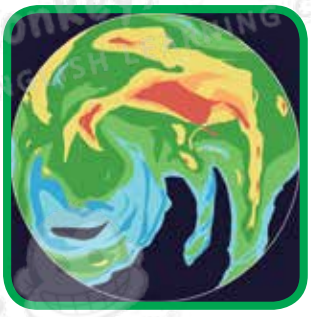
Part A. Let's Match

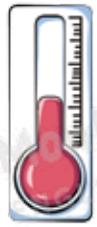
Match the words to the definitions.

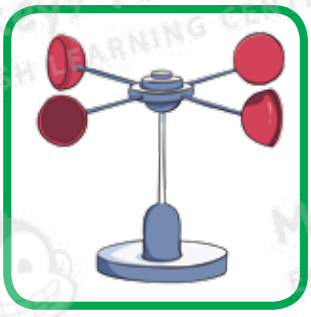
1 circular	To cause harm to something
2 damage	When something is extremely cold
3 frozen	Shaped like a circle
4 pollute	The process of making something dirty

Part B. Let's Check

Look at the pictures and match them to the correct weather measurement tools.







thermometer

anemometer

satellite

radar

READING & SPEAKING
LEVEL C UNIT 7

Progress Report

☐ **LESSON 1** _____

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☐ **LESSON 2** _____

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☐ **LESSON 3** _____

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☐ **LESSONS 4+** _____

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Teacher Signature : _____