

**Sample Student Exercises Lower Secondary Geography Number 3****Form 3 Term 3**

**Curriculum Topic:** The Physical Earth and Human Interactions- Weather And Climate

**Tasks:**

- Define the terms weather and climate
- State the elements of weather and climate
- Differentiate between weather and climate

**Key Teaching Points:****What is weather?**

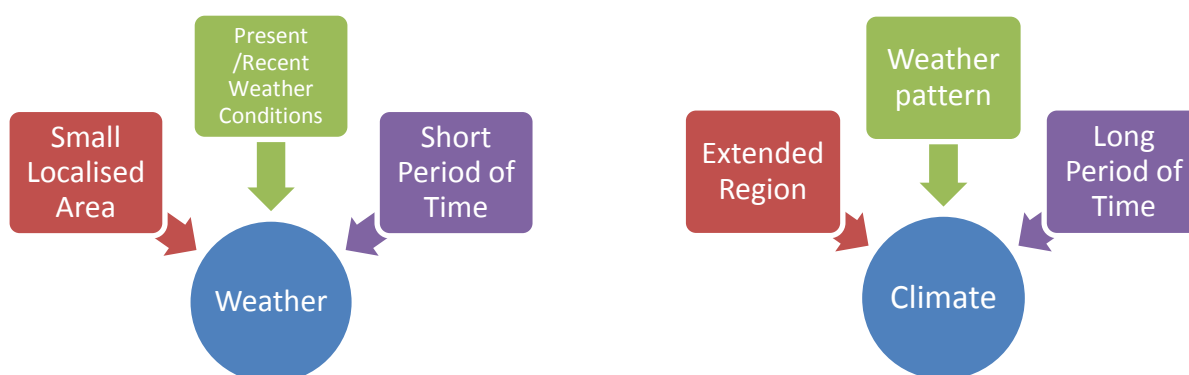
Weather is the condition of the atmosphere in one place during a short period of time

**What is climate?**

Climate is the weather pattern typical for an area over a long period of time

**What is the difference between the terms weather and climate?**

The **difference between weather and climate** is a measure of **time and space**. Weather is what conditions of the atmosphere in a small area are over a short period of time, and climate is how the atmosphere "behaves" in a large region over relatively long periods of time.

**What are the elements of weather and climate?**

The main elements of weather and climate include:

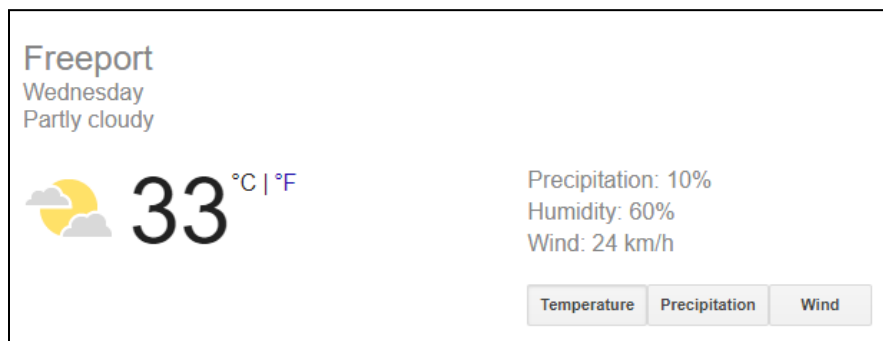
- Temperature.  
This describes the hotness or coldness of a place
- Precipitation (rainfall)  
This is condensed water vapour that falls from the atmosphere to the surface

- Atmospheric pressure  
This is the force exerted on the earth's surface due to air which lies above the ground. The air above the ground may be heavy because it is cold and sinks to the ground. As a result this area would experience high atmospheric pressure. If the air above the ground is hot it would be light and move away from the ground. Low atmospheric pressure would be the result.
- Wind speed and direction  
Movement of air from areas of high atmospheric pressure to areas of low atmospheric pressure.
- Clouds (type and altitude)  
This is the amount of evaporated water vapour in the atmosphere
- Sunshine
- Relative Humidity  
This gives an idea of the amount of water vapour in the atmosphere

**Practice Activity**

1. Examine diagrams 1 and two. Indicate whether the diagram is associated with the term *weather* or *climate*.

*Circle the correct term*



*Diagram 1- Weather/Climate*

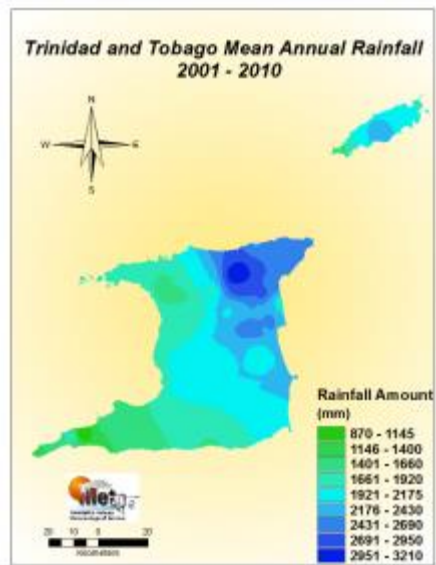
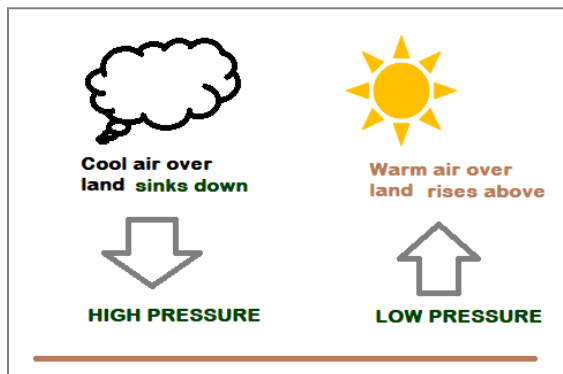


Diagram 2- Weather/Climate

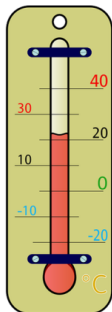
2. State which element of weather and climate is depicted in each of the diagrams below.

a.



Element of Weather and Climate: \_\_\_\_\_

b.



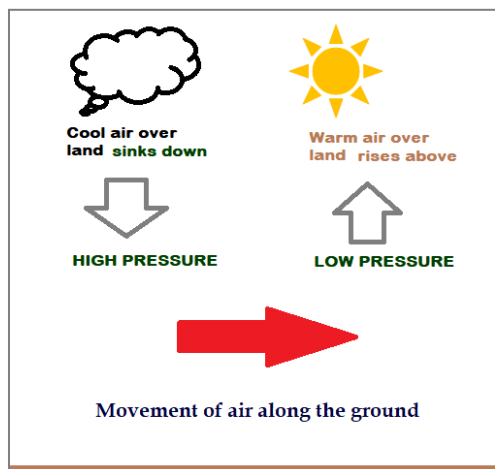
Element of Weather and Climate: \_\_\_\_\_

c.



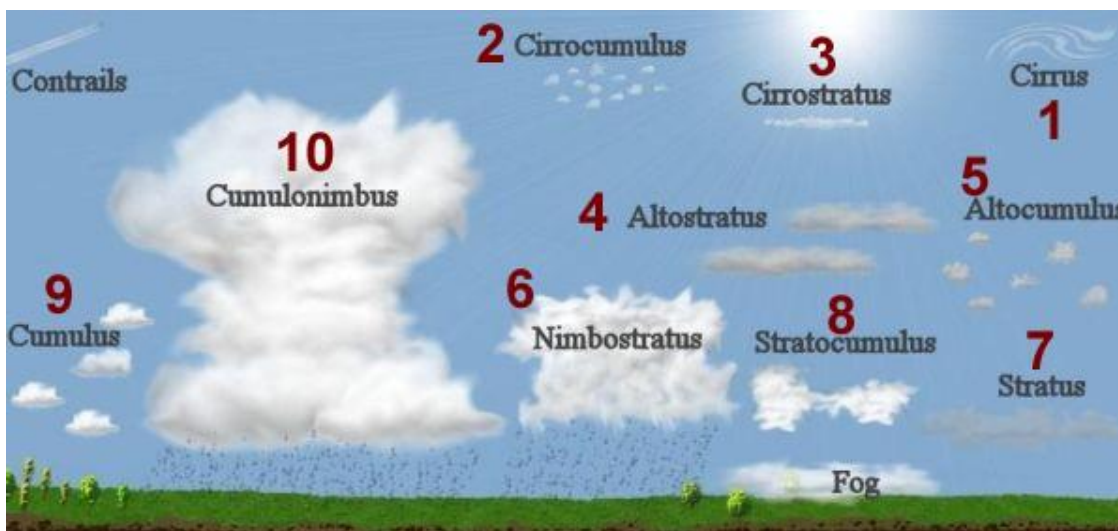
Element of Weather and Climate: \_\_\_\_\_

d.



Element of Weather and Climate: \_\_\_\_\_

f.



Element of Weather and Climate: \_\_\_\_\_

3. Name the instruments used to measure the following elements of weather and climate. To complete this activity you are required to conduct research using your text book or the internet.

Elements	Instruments
Temperature	
Wind	
Precipitation	
Air Pressure	
Relative Humidity	
Clouds	

4. Place the statements associated with weather and climate in the correct column in the table below.

- ✓ Description of precipitation and temperature for one day
- ✓ Description of precipitation and temperature for a long period of time
- ✓ There was heavy rainfall in many parts of the island last week
- ✓ The temperature in Port of Spain today was 34 degrees Celsius
- ✓ The rainy season in Trinidad and Tobago is between June and November
- ✓ The highest average temperature in the month of February is 28.4 degrees Celsius
- ✓ At present, there is a 10 mile per hour wind from the east in Scarborough Tobago.
- ✓ Hurricanes are prevalent during the rainy season

Weather Statements	Climate Statements

**Answer Key****Practice Activity 1**

Diagram 1- ~~Weather~~/Climate

Diagram 2- Weather/~~Climate~~

**Practice Activity 2**

- a. Atmospheric Pressure
- b. Temperature
- c. Precipitation
- d. Winds
- e. Cloud Cover

**Practice Activity 3**

Elements	Instruments
Temperature	Thermometer
Wind	Anemometer Wind vane/rose
Precipitation	Rain Gauge
Air Pressure	Barometer
Relative Humidity	Sling Psychrometer (wet and dry bulb)
Clouds	Nil

**Practice Activity 4**

Weather Statements	Climate Statements
✓ Description of precipitation and temperature for one day	✓ Description of precipitation and temperature for a long period of time
✓ There was heavy rainfall in many parts of the island last week	✓ The rainy season in Trinidad and Tobago is between June and November
✓ The temperature in Port of Spain today was 34 degrees Celsius	✓ The highest average temperature in the month of February is 28.4 degrees Celsius
✓ At present, there is a 10 mile per hour wind from the east in Scarborough Tobago.	✓ Hurricanes are prevalent during the rainy season

