

Subject: Science

Level: Standard 4

Strand: Systems and Interaction








Topic: Outline of steps to prepare for extreme weather conditions.

Key Points:

- **Weather** is the atmospheric conditions at a particular place over a short period of time.
- Weather considers the following conditions of a place:
 - temperature (hot or cold)
 - the amount of wind
 - cloudiness
 - precipitation (rain, snow, hail).
- **Climate** is the long-term average of weather or the weather pattern over a large region.
- **Severe weather** refers to any weather condition with the potential to cause damage, serious social disruption or loss of human life.
- **Extreme weather** conditions are unusually intense, harsh or unexpected
- Extreme weather events are increasing due to **human-induced global warming**
- Examples of severe or extreme weather in the tropics, such as Trinidad and Tobago are:
 - Storms and hurricanes
 - Heat spells
 - Drought/ Dry spells
 - Funnel clouds
 - Thunderstorms

Activity1. Identifying the severe/ extreme weather found in the WET and DRY seasons.

Weather Symbols

						
RAINY	HURRICANE	WINDY	FLOOD	SUNNY	DROUGHT	FUNNEL CLOUD

Instruction: Use the weather chart above to identify the appropriate weather conditions for each season, in Table 1 below

Dry Season	Wet Season
<ul style="list-style-type: none"> ✚ Lasts from January to May. ✚ Hot days, up to 33°C. Generally low rainfall. ✚ Not very windy. <p>Weather in dry season:</p>	<ul style="list-style-type: none"> ✚ Lasts from June to December. ✚ Days are cooler and often cloudy. ✚ High rainfall ✚ Frequent windy ✚ Hurricane season is June to November. <p>Weather in wet season:</p>

TABLE 1: Typical weather conditions for tropical climate in Trinidad and Tobago

2. Steps to preparing for extreme weather conditions

STEP 1: Being aware of possible occurrences (events, dangers).

(i) What type of **events, dangers** may occur from extreme weather in the dry season?

(ii) What type of **events, dangers** will occur from extreme weather in the wet season?






STEP 2: Listing the general problems for each situation and listing the solutions

The table below is a planner for extreme weather. List the problems of extreme weather in the wet season and the solutions. An example is done for you based on the dry season,

Season	Situation	Problems posed by situation	Solutions
Dry	Drought	<ul style="list-style-type: none"> Decreased supply of pipe borne water Water supply is polluted 	<ul style="list-style-type: none"> Install tanks or barrels Save water
	Heat spells	Heat stroke.	<ul style="list-style-type: none"> Wear light clothing Stay indoors during the day Drink lots of water
Wet	Flood		
	Heavy rain		
	Storm/ Hurricane		
	Strong wind		

Assessment

3. A hurricane is due to hit in 24 hours. Below are pictures of items which are needed in preparing for the hurricane. State the purpose of each item.

Item	Purpose
Radio/ Television 	
Safety kit 	
Board and laths 	
Canned items and Bottles of water 	
Torchlight or lamp 	

Answer Key

1. TABLE 1: Typical weather conditions for tropical climate in Trinidad and Tobago

Dry Season	Wet Season
Sunny Drought	Rainy Hurricane Windy Flood Funnel Cloud

2. STEP 1: Being aware of possible situations

(i) What type of **occurrences** will occur from extreme weather in the dry season?

Drought, heat strokes, food shortage

(ii) What type of **occurrences** will occur from extreme weather in the wet season?

Flood, storm/ hurricane, strong wind, diseases, polluted food

STEP 2: Listing general problems for each situation and listing the solutions

List of problems caused by extreme weather and the solutions.

Season	Situation	Problems posed by situation	Solutions
Dry	Drought	Decreased pipe borne water	<ul style="list-style-type: none"> • Install tanks or barrels • Save water
	Heat spells	Heat stroke.	<ul style="list-style-type: none"> • Wear light clothing • Stay indoors during the day

Season	Situation	Problems posed by situation	Solutions
			<ul style="list-style-type: none"> • Drink lots of water
Wet	Flood	Damage to homes and other property.	<ul style="list-style-type: none"> • Heed warnings from the Meteorological Services • Prepare sand bags • Place important documents in plastic bags and store safely
	Rain	Flooding and lightning strikes	<ul style="list-style-type: none"> • Stay indoors to prevent being struck by lightning
	Storm/ Hurricane	Damage to homes and other property.	<ul style="list-style-type: none"> • Heed warnings from the Meteorological Services • Prepare sand bags • Place important documents in plastic bags and store safely • Cut trees which are close to houses • Secure homes by boarding windows
	Strong wind	Roofs blown away	<ul style="list-style-type: none"> • Secure roofs at start of wet season • Tarpaulin

3. A hurricane is due to hit in 24 hours. Importance of each item in preparing for the hurricane is as follows:

Other appropriate answers are acceptable.

Item	Purpose
Radio/ Television	To keep updated with warnings and advice from the Meteorological Services and Office of Disaster Preparedness (ODPM)
Safety kit	Contains important documents, flash light, batteries, cell phone and charger, list of emergency phone numbers, medication etc
Board/ Laths	Used for protecting windows and doors.
Canned items	Used as a store of food
Bottles of water	Used as a store of drinking water
Torchlight	To look around if there is no electricity

Acknowledgement: References for images

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