

2. Identify 5 dangerous weather-related conditions. What safety rules apply to each?

- a. _____

- b. _____

- c. _____

- d. _____

- e. _____

Explain the difference between severe weather watches and warnings, and discuss the relevant safety rules.

Discuss the safety rules for weather-related conditions with your family. Obtain the signature of an adult family member who participated in the discussion on the Weather Observation Log and submit it to your counselor for review.

3. Explain the difference between high and low pressure systems, and the relationship of each to fair and poor weather.

High Pressure: _____

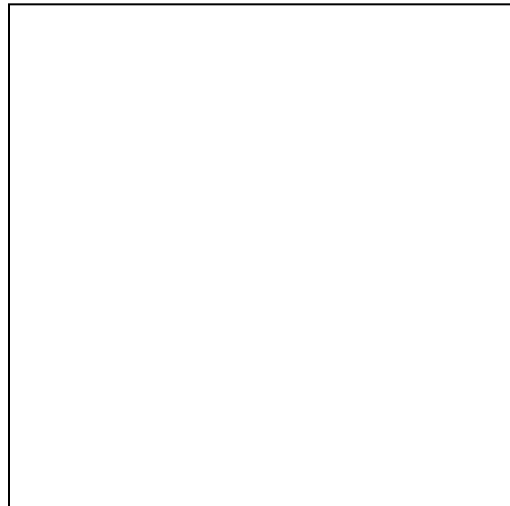
Low Pressure: _____

Draw a cross-section of a cold front and a warm front showing the location and movements of the cold and warm air, the frontal slope, the location and type of clouds associated with each type of front, and the location of precipitation.

Cold Front



Warm Front



4. Tell what causes wind, why it rains, and how lightning and hail are formed in a cumulonimbus cloud.

Wind: _____

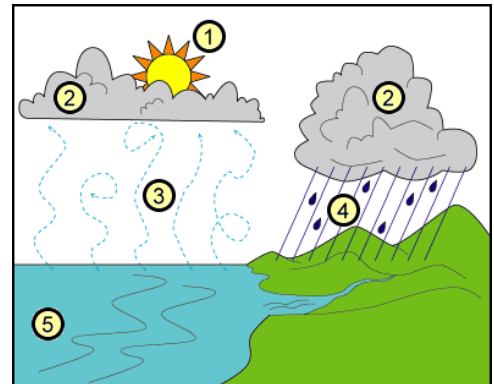
Rain: _____

Lightning: _____

Hail: _____

5. Identify and describe clouds in the low, middle and upper levels of the atmosphere. Relate these to specific types of weather.

6. Diagram the water cycle and label its major processes.



Solar Energy - Evaporation - Condensation - Precipitation - Accumulation

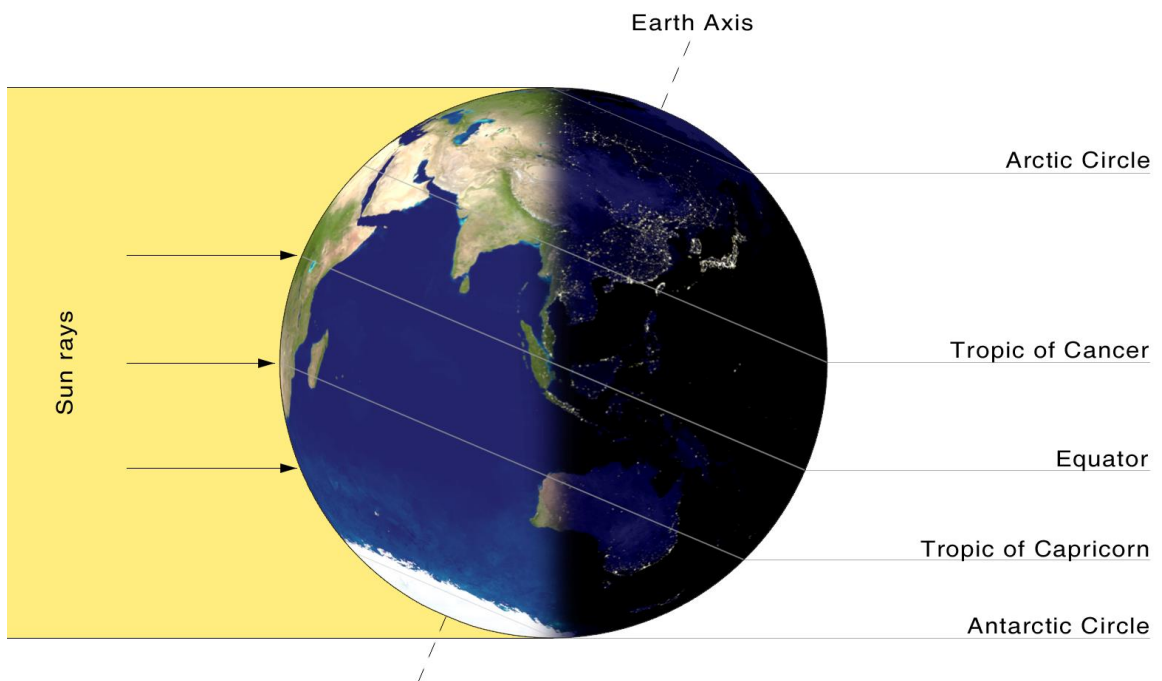
7. Identify some human activities that can alter the environment, and describe how they affect the climate and people.

8. Describe how the tilt of Earth's axis helps determine the climate of a region near the equator, near the poles, and across the area in between.

Polar: _____

Equatorial: _____

Temperate: _____



9. PART A: Build a weather station with one of the following instruments:

- a. Wind Vane
- b. Anemometer
- c. Rain Gauge
- d. Hygrometer

(Museum uses a-c + thermometer). Record weather data daily for seven consecutive days and compare to data acquired from local television, radio, or internet (with your parents' permission) sources using the separate observation sheet. Live weather for the San Carlos area can be downloaded from the Hiller Aviation Museum's weather station at www.hiller.org (click on "Local Weather" at top right of home page).

10. PART A: Prepare and present a talk of at least 5 minutes to a group of Scouts explaining the outdoor safety rules in the event of lightning, flash floods, and tornadoes.

11. Find out about a weather-related career opportunity that interests you. Discuss the training, education and responsibilities required for this position.

Scout Peer Presentations

My Hazard (Circle):

- 1. Lightning
- 2. Flash Flood
- 3. Tornado

My Assignment (Circle):

A. Describe Hazard

B. Safety Rules
