



Pathfinder's Name

Weather

1. Explain how each of the following is formed:

Fog _____

Sleet _____

Rain _____

Hail _____

Dew _____

Frost _____

Snow _____

2. Identify either in the sky or from pictures the following types of clouds: cirrus, cumulus, stratus, nimbus. What kind of weather is associated with each.

3. Explain the action of a mercury or spirit thermometer, a mercury barometer, an aneroid barometer, and a rain gauge.

Mercury or spirit thermometer _____

Mercury barometer _____

Aneroid barometer _____

Rain gauge _____

- 4. Why is it possible to be rainy on one side of the mountain range and dry on the other? Give an illustration for your country or region.

Why is it cooler and more moist in the mountains than in the lowlands?

From which direction do rain and clear weather usually come in your locality?

- 5. Show with the help of a diagram how the earth's relationship to the sun produces the seasons.

- 6. What causes lightning and thunder?

What different kinds of lightning are there?

7. Show with the help of a diagram what a convection is.

What is its relation to winds?

8. Explain how radar, satellites, and computers are used in weather forecasting.

Radar _____

Satellites _____

Computers _____

9. Tell how the following can affect our weather:

Jet stream _____

Volcano eruption _____

- 10. Make a drawing showing the water cycle in weather.
- 11. Make a simple wind vane or rain gauge.
- 12. Keep a weather chart for one week and record readings at 12-hour intervals. Include the following: (Complete Chart #1)
 - Temperature
 - Moisture (dew, fog, rain, frost, or snow)
 - Cloud formation
 - Wind direction

Date completed _____

Instructor's Signature _____

Weather, Advanced

- 1. Have the Weather Honor.
- 2. Explain cyclonic and anticyclonic weather conditions and know how they bring about weather changes.

Cyclonic _____

Anticyclonic _____

- 3. What are cold fronts and warm fronts? How do they move and what weather conditions do they produce?

Cold front _____

Warm front _____

- 4. Explain the following weather conditions:

Chinook winds _____

Trade winds _____

Belt of calms _____

Tornadoes _____

Squall line _____

Typhoons _____

Hurricanes _____

Blizzards _____

Ice storm _____

- 5. Explain the action of a registering thermometer, registering barograph, hygrometer, and an anemometer.
 Registering thermometer _____
 Registering barograph _____
 Hygrometer _____
 Anemometer _____
- 6. Correctly read a daily weather map as published by the National Weather Service, explaining the symbols and telling how predictions are made.
- 7. What is meant by relative humidity and dew-point?
 Relative humidity _____
 Dew point _____
- 8. Draw a cross section of the atmosphere, showing its five layers and describe them.

- 9. Keep a daily weather chart for three weeks. Include the following:
 (Complete Chart #1)
 Amount of precipitation (Secure this either from your own home-made device or from official records.)
 Barometer reading
 Cloud formation
 High and low temperature
 Wind speed and direction
 Weather forecasts and comparison to what real happened.
- 10. Discuss the effect of mankind on weather.

Weather, Advanced Chart #1

Instructions

- Keep a daily weather chart for three weeks to include the following:
- | | |
|--------------------------|--|
| Amount of precipitation | Dew or frost in the morning |
| Barometer reading | Wind speed and direction |
| Cloud formation | National Weather Service forecast with
what really happened |
| High and low temperature | |

Use your own observation as well as information obtained from the radio, TV or newspaper.

Week # _____	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
High temperature (Fahrenheit degrees)							
Low temperature (Fahrenheit degrees)							
Current temperature (Fahrenheit degrees)							
Cloud type							
% cloud cover							
Air pressure							
Humidity							
Wind direction							
Wind speed (mph)							
Rain daily (inches)							
Rain total (inches)							
Prediction/ Actual Weather							