

Weather



1. Explain how each of the following is formed:
 - a. Fog
 - b. Rain
 - c. Dew
 - d. Snow
 - e. Sleet
 - f. Hail
 - g. Frost
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.
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.
 - a. Why is it cooler and more moist in the mountains than in the lowlands?
 - b. 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.
9. Tell how the following can affect our weather:
 - a. Jet stream
 - b. 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:
 - a. Temperature
 - b. Moisture (dew, fog, rain, frost, or snow)
 - c. Cloud formation
 - d. Wind direction

Skill Level 1

Original Honor 1944

Weather, Advanced

1. Have the Weather Honor.
2. Explain cyclonic and anticyclonic weather conditions and know how they bring about weather changes.
3. What are cold fronts and warm fronts? How do they move and what weather conditions do they produce?
4. Explain the following weather conditions:
 - a. Chinook winds
 - b. Trade winds
 - c. Belt of calms
 - d. Tornadoes
 - e. Squall line
 - f. Typhoons
 - g. Hurricanes
 - h. Blizzards
 - i. Ice storm
5. Explain the action of a registering thermometer, registering barograph, hygrometer, and an 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?
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:
 - a. Amount of precipitation (Secure this either from your own home-made device or from official records.)
 - b. Barometer reading
 - c. Cloud formation
 - d. High and low temperature
 - e. Wind speed and direction
 - g. Weather forecasts and comparison to what real happened.
10. Discuss the effect of mankind on weather.

Skill Level 2

Original Honor 1949