

WEATHER

BY NANCY MOORE

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The activities in this book explain elementary concepts in the study of weather including uneven heating of Earth, the water cycle, relative humidity, measuring rain, air, winds, pressure, reading weather symbols, and maps. Activities include directions for constructing an operational classroom weather station.

General background information, suggested activities, questions for discussion, and answers are included.

Encourage students to keep completed pages in a folder or notebook for further reference and review.

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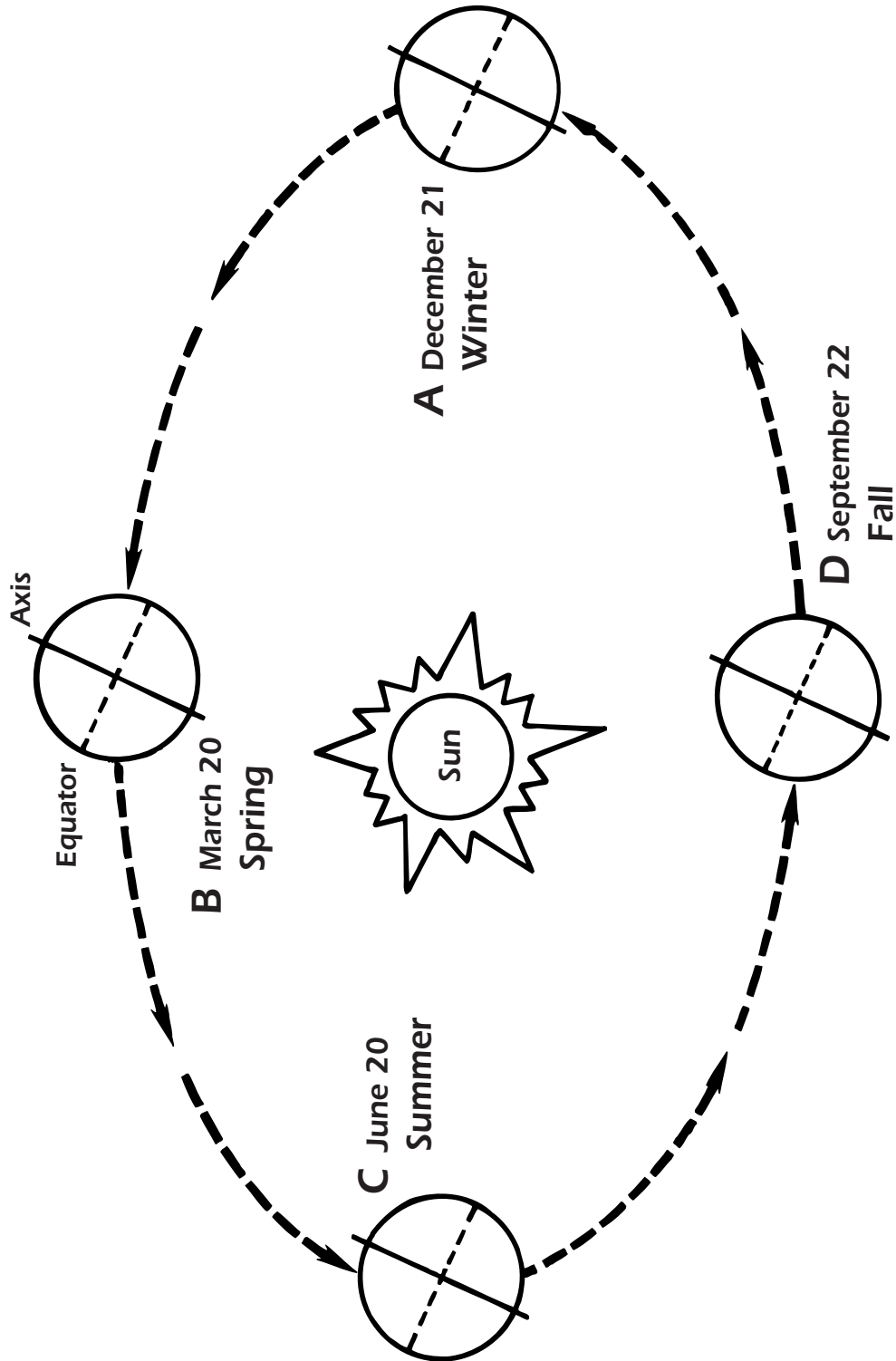
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WEATHER

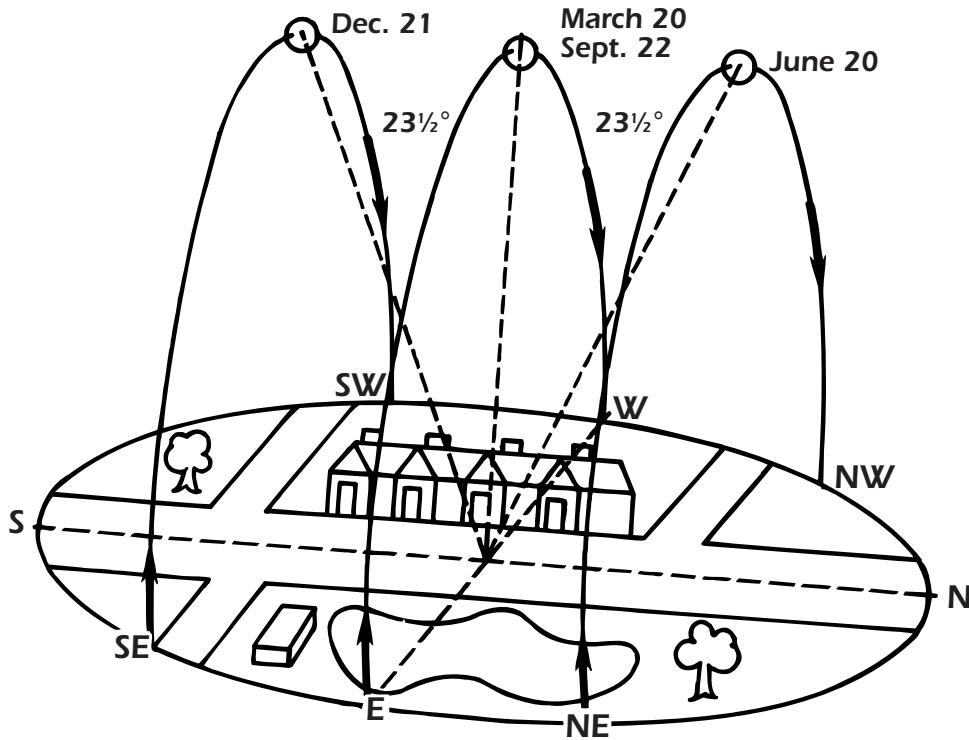
SUN AND THE EARTH

The tilt of the Earth's axis and Earth's revolution around the Sun cause the amount of sunlight striking the Earth to change continually from day to day.

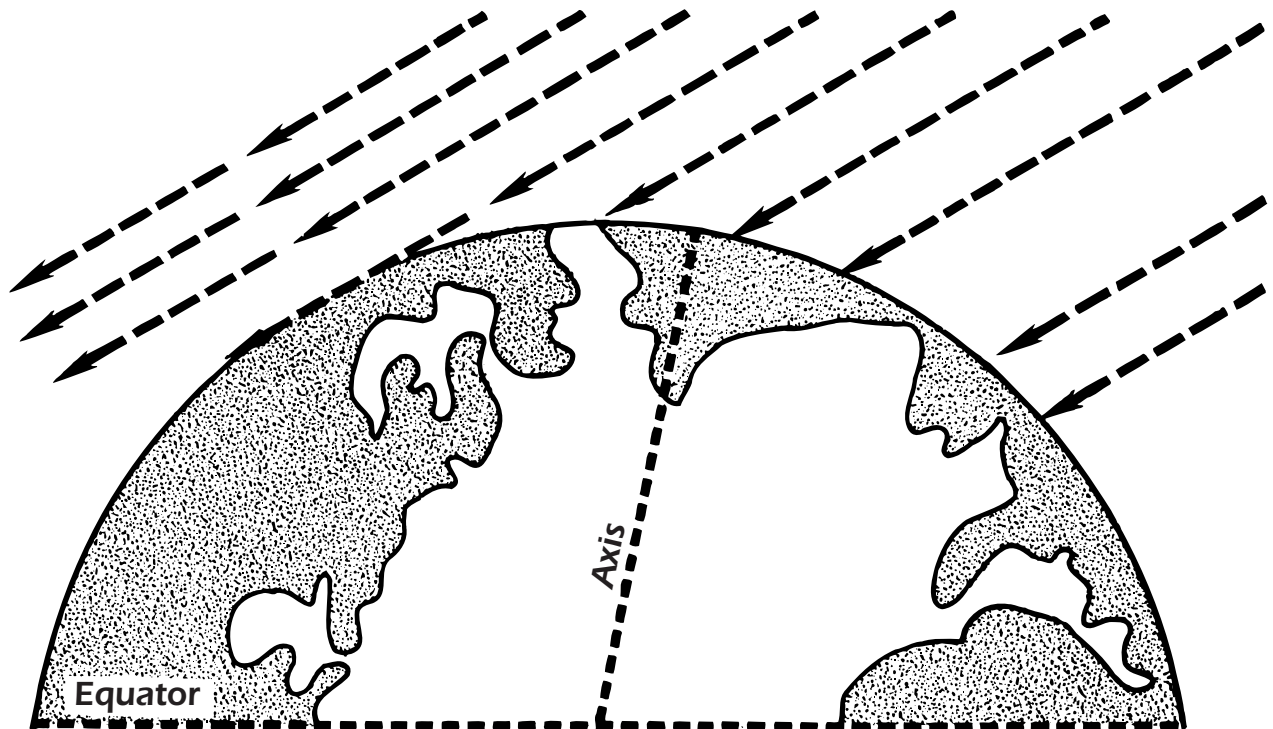


WEATHER

CURVATURE AND CHARACTERISTICS OF EARTH



Curvature and characteristics of Earth result in uneven heating from the Sun's rays.



WEATHER**UNEVEN HEATING OF EARTH**

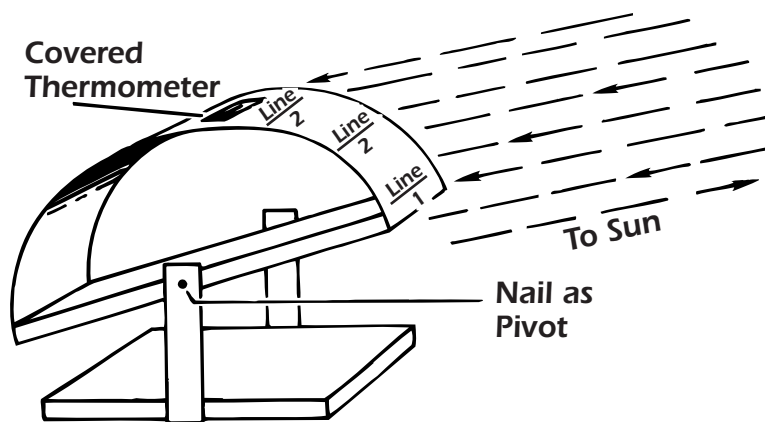
The Earth is not heated evenly by energy from the sun because the Earth's surface is curved.

The tilt of the Earth's axis and its yearly revolution around the Sun cause the amount of sunlight striking the Earth to change continually from day to day. When the Northern Hemisphere is tilted toward the Sun, the rays fall more directly on the Northern Hemisphere.

When the Northern Hemisphere is tilted away from the Sun, the rays fall at a greater slant, and the Northern Hemisphere receives less sunlight. If the Earth were not tilted, there would be no seasons. The seasons in the Southern Hemisphere are opposite of those in the Northern Hemisphere. At the equator, there are essentially no seasonal changes.

ACTIVITY

1. Construct the model below which represents a part of the Earth. Use the illustration to help you assemble the model. Mount the curved section on the stand so it is movable.
2. Cover the thermometer bulb with a piece of black cloth or adhesive tape painted black to soak up sunlight quickly.
3. Fasten the thermometer at line one and record the results in the chart. The model should be kept still and in full sunlight with line one facing directly to the sun.



4. Repeat the process in step three with lines two and three.

Thermometer Placed on Line	Starting Temperature	Temperature after 2 Minutes	Change in Temperature
1			
2			
3			