

## The Power of the Sun

Without the sun, there would be no weather. Light from the sun is the energy which fuels the world's great weather machine. Sunshine, wind, rain, fog, snow, hail, thunder—every type of weather occurs because the heat of the sun keeps the atmosphere constantly in motion. But the power of the sun's rays to heat the air varies—across the world, through the day, and through the year. All these variations depend on the sun's height in the sky. When the sun is high in the sky, its rays strike the ground directly, and its heat is at a maximum. When it is low in the sky, the sun's rays strike the ground at an angle, and its heat is spread out over a wider area. It is largely because of these variations that we get hot weather and cold weather, hot places and cold places.

Because the Earth's surface is curved, the sun's rays strike different parts at different angles, dividing the world into distinct climate zones, each with its own typical weather. (The "climate" of a place is its average weather.)

The world's hottest places are in the tropics, straddling the equator, for here the sun is almost directly overhead at noon. Deserts are found wherever there is little moisture in the air. But the hottest deserts, like the Sahara, are in the tropics where the sun's power is at its greatest.

The coldest places are at the poles, where even at noon the sun is so low in the sky that its power is spread out over a wide area. Vast areas of the Arctic and Antarctic, where it is always cold, are covered in a permanent sheet of ice, up to 985 feet thick.

In between these extremes lie the temperate zones. Within these broad zones, climates vary considerably according to such factors as nearness to oceans and mountains, and height above sea level.



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**Strategy: Generating Main Idea Questions**  
**Classifying Questions Chart**

Student's Question:	Is this a main idea or a detail question?
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail
	<input type="checkbox"/> Main Idea <input type="checkbox"/> Detail



**DAR Levels 3-6**

**Strategy: Generating Main Idea Questions**

Student: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Passage Title: \_\_\_\_\_ Passage Level: \_\_\_\_\_

Use the Classifying Questions Chart to record the questions the student asks and whether the student thinks each question is a main idea or a detail question.

Did the student have difficulty generating questions? **Y** or **N**

Explain:

Did the student have difficulty distinguishing between main ideas and details? **Y** or **N**

Explain:

<p><b>During this activity, the student seemed:</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Actively engaged</li><li><input type="checkbox"/> Somewhat engaged</li><li><input type="checkbox"/> Passively cooperative</li><li><input type="checkbox"/> Not interested</li><li><input type="checkbox"/> Other: _____</li></ul>	<p><b>Additional Comments:</b></p>
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