

**Exploration Student Worksheet: The Seasons**

**Overview**

In this Exploration, you will discover how the Earth’s revolution around the Sun causes the cycle of seasons.

**Questions**

1. During which two months do the northern and southern hemispheres receive the same amount of light?

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2. When the North Pole is tilted toward the Sun, which hemisphere will have the summer season?

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3. A year has 365 days on the calendar. Why does a leap year have 366 days?

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4. What is the relationship between the strength of the Sun’s rays and the season of the year?

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**EXPLORATIONS**

5. **Empirical evidence** is evidence based on data. Explain why the sunlight is stronger in Miami, Florida, during June than it is during December. Use empirical evidence.

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6. What kind of empirical evidence would show that Miami, Florida, always has stronger sunlight than Caribou, Maine?

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7. It is the year 2300. The tilt of the Earth has increased. A scientist predicts that the seasons will be milder now. Evaluate and critique this prediction using the evidence you have collected.

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8. Compare this model with the real Earth/Sun system. What are its limitations? Include size.

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**How to Use This Exploration**

1. Read the Introduction and click the **Continue** button.
2. Read the instruction text and perform the action.
3. Watch the animation and read the outcome explanations as they appear. Make a sketch of Earth's four positions as it revolves around the Sun.
4. Click the **Previous** button to go back to the previous instruction. Click the **Next** button to move ahead in the Exploration.
5. Click the **Close** button to close the Exploration.



Name \_\_\_\_\_ Date \_\_\_\_\_

## EXPLORATIONS

### Data

Make a sketch of Earth's four positions as it revolves around the Sun.

June	September
December	March