

Name \_\_\_\_\_

**Activity One: Spinning into Darkness and Light**

1. Can everyone on Earth be in sunlight at the same time? What does the shape of Earth have to do with your answer? Imagine the light in the middle of the room is the sun and use your model Earth to figure out an answer to the question. After you are confident about an answer, write and draw an explanation below or in your science notebook.

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2. Position your model Earth so that it is midnight in China and Australia and noon in the United States and Brazil. Draw the position of Earth and the sun below or in your science notebook. Given what you know about the way light travels and the shape of Earth, explain why and how this happens. Next, imagine that twelve hours have passed and people in China and Australia will be eating lunch at noon and people in the United States and Brazil will be asleep at midnight. How is Earth moving now that China and Australia are in light and the United States and Brazil are in darkness? Write and draw your explanation.

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