

Earth-Moon Model

Procedure

1. **Collaborate** Work with a partner. Use the chart below to record your data.

Position of Baseball	Prediction	Observation
To right of kickball		
To left of kickball		

2. Place a flashlight at one end of a table pointing to the other end. Do not turn it on yet. Place a kickball on the table in front of the flashlight. Place a baseball on the other side of the kickball so the flashlight and balls are all in a line.
3. **Predict** Think about how each ball will look when you turn on the flashlight. Work with your partner to predict what you will observe when you turn on the flashlight. Record your prediction.
4. **Experiment** Turn on the flashlight to check your prediction. Then turn off the flashlight and record your observations. What you observe is the appearance of a lunar eclipse. A **lunar eclipse** occurs when the Moon passes into Earth's shadow.
5. Turn on the flashlight again. Have your partner slowly roll the baseball from one side of the kickball to the other. Observe and record what happens.

Conclusion

Write the answers to the questions below.

1. **Communicate** Write a description of how the baseball looked in step 4 compared with how it looked in step 5.

2. **Use a Model** What part of your model represented the Sun? Earth? Moon?

Investigate More!

Design an Experiment As it moves around Earth, the same side of the Moon faces Earth. Design an experiment that models this. Demonstrate your model for your classmates.