Activity Overview

Grade Level: K-2
Activity: LE-4

General Description
Students will discuss common misconceptions regarding the apparent movement of the sun.

Learning Outcome
Students will work in cooperative groups, communicate effectively and understand sun misconceptions.

Subjects
Science, social studies, language

Process Skills
Discussion, questioning, sharing conclusions

Duration
1 hour

Key Vocabulary
Misconception

Curriculum Standards
Texas (TEKS)
112.2.b.k.7, 112.3.a.2,
Louisiana (LSCS)
ESS-E-B5
Arkansas (ASCF)
3.1.4
National (AAAS Project 2061)
The Physical Setting – 2nd

Misconceptions About the Sun

Materials

- "Sun Misconceptions" worksheet

Method

1. Distribute "Sun Misconceptions" worksheet to students who have been arranged in cooperative groups.
2. Have the students brainstorm the reasons that all of the statements on the page are incorrect.
3. As a class, discuss student thinking regarding the misconceptions.

Discussion

It can be difficult for children to understand that the sun is stationary when they see its apparent movement across the sky. In fact, the Earth's rotation and movement around the sun is responsible for the sun's apparent movement from Earth. It is a case in which the observer is moving while that which is being observed is standing still.

This concept is comparable to watching the countryside "go by" outside the window of a moving car or train. The person inside the car feels like they are being still, while the trees and fields outside the car appear to be passing by.

Assessment

Students communicate ideas and information. Students understand misconceptions and why they are incorrect.

Source: This activity adapted from Montgomery County Public Schools, Rockville, Maryland.

Sun Misconceptions worksheet

Discuss why each of the following statements is incorrect.

1. The sun moves across the sky from east to west.

2. The sun comes up in the east and goes down in the west.

3. The sun dips below the horizon just before dark.

4. The sun rises above your house.

5. The sun moved behind a cloud.

6. The sun isn't out on cloudy days.

7. A shadow changes as the sun moves.

8. The sun stays up in the sky longer in the summer than in the winter.

9. The sun moves in an arc across the sky.

10. When the sun goes down, the moon comes up.

11. The sun changes color.