

<b>Seasons</b>	<b>Grade 1</b>
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## Day and Night – Pre Activity

Assessment  
 Cross-curricular

Questions

**Big Ideas**

50 minutes

Changes occur in daily and seasonal cycles.

Changes in daily and seasonal cycles affect living things.

**Specific Expectations**

1. Investigate the changes in the amount of light from the sun that occur throughout the day and year (2.2);
2. Identify the sun as Earth’s principal source of heat and light (3.1);
3. Define a cycle as a circular sequence of events (3.2).

**Description**

Learn how the Earth’s rotation causes day and night.

**Materials**

Flashlight  
 Earth globe (or a ball)

**Safety Notes**

Students should take care not to shine the flashlight in anyone’s eyes, or look directly into the bright light. Also remind students to never look directly at the Sun. Its bright light can damage their eyes.

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## Introduction

1. Discuss with students the changes they notice each day in the amount of light they see (bright during the day, dark at night, etc.) and how those changes affect their daily activities (active during the day, sleep at night).
2. Can also discuss nocturnal animals – sleep during the day, active at night.
3. Why do they think these changes happen? Where is the light coming from? Why does it go away?

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## Action

1. Ask for a volunteer to hold a flashlight. The flashlight represents the Sun. The Sun is a star just like the stars they see at night, but it looks much bigger and brighter because it's so much closer to the Earth. The Sun gives off light and heat that travels in all directions.
2. Ask for another volunteer to hold the globe/ball. The ball represents the Earth. The Sun volunteer shines the flashlight on the Earth. Students can see that only one side of the Earth is illuminated. Is it daytime or nighttime for people living on that side of the Earth? What about on the other side?
3. Place a sticker or tape or other marker on the daytime side of the globe (maybe on the location of your city.) As the Earth volunteer turns the globe around (may need assistance holding/turning in the correct direction), ask the students to notice when the marked location starts to face away from the Sun. This shows sunset and the start of nighttime. Keep turning the globe, and notice when the marked location starts to face toward the Sun. This is sunrise and the start of daytime. This cycle repeats once every day (24 hours).

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## Consolidation/Extension

1. Revisit the questions from the Introduction. Where does daylight come from? (The Sun). Why does it go away? (The Earth is turning. Sometimes our part of the Earth is facing away from the Sun – nighttime).
2. Ask students if they notice longer patterns in the amount of light/dark (longer days in the summer and warmer weather, shorter days in winter and colder weather). What causes these changes?