

POP! TEACHER RESOURCE

Lesson Plan

Days and Years

Lesson Plan for *Venus*

Grade 2

Objective

To help students understand the definitions of days and years, and to explore how their lengths vary on different planets.

Things Needed

- *Venus* book
- Whiteboard

Before the Activity

Read Chapter 3 (“The Longest Day”) of the *Venus* book aloud to the class.

Activity

To start, review what the terms *day* and *year* mean, asking students to recall the definitions from the chapter:

- “One day is how long it takes for a planet to spin once on its axis” (p. 14).
- “A year is how long it takes for a planet to make one lap around the Sun” (p. 17).

The planets in our solar system move around the Sun at different speeds. They also spin at different speeds. As a result, days and years are different lengths on different planets. Earth takes 24 hours to make a full spin on its axis. So, one day on Earth is 24 hours long. Venus spins very slowly on its axis. As a result, it has a very long day. In fact, it has the longest day in our solar system. One day on Venus is 243 Earth days. That’s 5,832 hours long!

Earth takes 365 days to move around the Sun. So, a year on Earth is 365 days long. According to page 17, one year on Venus is 225 Earth days. Write all these numbers on the whiteboard. Then ask the following questions:

- Is a year on Venus longer or shorter than a year on Earth? (Answer: It’s shorter.)
- Is a year on Venus longer or shorter than a day on Venus? (Answer: It’s shorter.)



- On Earth, is a day or a year shorter? (Answer: A day is shorter on Earth.)
- A year on the planet Mercury is 88 Earth days long. Is that longer or shorter than a year on Venus? (Answer: That is shorter than a year on Venus.)

Explain that Mercury has the shortest year in our solar system. The planet with the longest year is Neptune. It takes this planet 165 Earth years to make one lap around the Sun.

Evaluation

Could students recall the definitions of the words *day* and *year*? Could they compare the lengths of the days and years on different planets to determine which was shorter?

Standards

This lesson plan may be used to address the Common Core State Standards' reading standards for informational texts, grade 2 (RI 2.1), and mathematics standards, grade 2 (CCSS.MATH.CONTENT.2.NBT.A.3, CCSS.MATH.CONTENT.2.NBT.A.4), and the National Science Education Standards' Content Standard D, grades K–4.

