



What Makes Earth Special?

EXPLORING SCIENCE

GRADE 5

✿ PART 1: Build the Solar System

Instructions: Open the solar system animation to observe the planets. Then use the simulation to drag and drop planets around the Sun to form our solar system. Try the following challenges and write your observations using the following words: **crash, collide, bump, overlap, follow**

☀ Challenge	✍ What did you observe?
Add two planets very close together.	
Place many planets on the same orbit (path)	

🔭 PART 2: Observe and Explore Like a Scientist

Instructions: Open the solar system animation. Zoom in and click on each planet to learn more. Answer the questions below based on what you observe.

1. Find the planet that has clouds and looks like it has air to breathe. Match the colors you see to what they mean.

Colour	What It Means
Blue	Clouds or air
Green/Brown	Water like oceans and lakes
White	Land and forests

2. Does any other planet look like it has water, like Earth?
3. Is there any other planet that is as colorful as Earth and shows signs of life (like green areas)?

4. Click on Venus and Neptune. Do they look too hot or too cold? Why?

Venus:

Neptune:

5. Venus is very close to the Sun, and Neptune is very far away. Look at Earth's position in the solar system. It is between Venus and Neptune. What does this tell you about Earth's temperature?

Choose the correct answer:

- The Earth is very hot.
- The Earth is very cold.
- The Earth has the right temperature — not too hot and not too cold.

PART 4: Think Like a Scientist

Instructions: Complete the sentence by choosing the correct answer(s).

1. I discovered that Earth is the only planet with life because...

- Earth has liquid water (oceans, lakes, rivers)
- Earth has air for breathing
- Earth has the right temperature
- Earth looks flat and gray.
- Earth is the coldest and smallest planet
- Earth is just the right distance from the Sun

2. If we lose Earth, we cannot move to another planet because...

- Other planets are too boring to live on.
- Other planets do not have the air, water, and temperature needed for life.
- Other planets already have people living there.