



Lesson Summary

Lesson Summary: Earth Supports Life

Learning Objective: I can describe Earth's unique characteristics that support life.

Why This Matters: Understanding Earth's special features helps us appreciate how lucky we are to live on a planet that can support life and inspires us to protect it for future generations.

Estimated Time: ~45 minutes.

Teachers Should:	Learners Should:
<ul style="list-style-type: none"><input type="checkbox"/> Edit and share the Student Lesson (print or digital) with all students.<input type="checkbox"/> Print copies of the Exit Ticket to distribute at the end of class.<input type="checkbox"/> Spend class time supporting students as they learn.	<ul style="list-style-type: none"><input type="checkbox"/> Watch the video (ilesson.co , code = jwk0) and take notes.<input type="checkbox"/> Answer the Practice Questions with classmates.<input type="checkbox"/> Complete an Exit Ticket before they leave class.

This lesson also includes:

- ★ A [Warm Up](#) for students to complete as they enter class.
- ★ An [Extension Activity](#) for students who want to go deeper.
- ★ An [Answer Key](#) for all activities.

You can support students by reviewing this [Lesson Slide Deck](#) during class.

Lesson Notes

This lesson was built using [Insta~Lesson](#), and edited by the teacher to meet their learners' needs. Aligns with 5th Grade grade standards for Earth Supports Life.

 Warm Up

Name: _____

Date: _____

Warm Up: Earth Supports Life

Imagine Earth is up for sale to aliens looking for a new home. What three features would you highlight to convince them that Earth is the best choice? Why would these features be appealing to extraterrestrial buyers?

Name: _____

Date: _____

Warm Up: Earth Supports Life

Imagine Earth is up for sale to aliens looking for a new home. What three features would you highlight to convince them that Earth is the best choice? Why would these features be appealing to extraterrestrial buyers?



Exit Ticket

Name: _____

Date: _____

Exit Ticket: Earth Supports Life

Learning Objective: I can describe Earth's unique characteristics that support life.

Name three natural resources discussed in the video that are vital for human survival.

Name: _____

Date: _____

Exit Ticket: Earth Supports Life

Learning Objective: I can describe Earth's unique characteristics that support life.

Name three natural resources discussed in the video that are vital for human survival.



Extension Activity

Name(s): _____

Date: _____

Design a Habitable Planet

Imagine you are an intergalactic real estate developer tasked with creating a new habitable planet! Using what you know about Earth's characteristics that support life, design your own planet, detailing its atmosphere, distance from its star, presence of water, and other key features. Create a presentation or poster showcasing your planet and explaining why it's perfectly suited for life.



Answer Key

Answer Key: Earth Supports Life

Key Points (Fill In the Blanks)

1. Anything supplied by mother nature that can be used by living beings are called ****natural resources****.
2. Natural resources that have an unlimited supply are called ****renewable**** or ****inexhaustible**** resources.
3. Resources that are available in limited quantities are called ****non-renewable**** resources.

Lesson Practice

- Q1. Liquid water, atmosphere, and suitable temperature range
- Q2. The atmosphere provides oxygen for breathing, protects from harmful radiation, and helps regulate temperature.
- Q3. Water is essential for all known life processes, acting as a solvent and a medium for chemical reactions.
- Q4. Earth's distance from the Sun allows for a temperature range where water can exist in liquid form.
- Q5. A molten core
- Q6. Without an atmosphere, Earth would have extreme temperature variations and no protection from harmful solar radiation, making it difficult for life to exist.
- Q7. Plants produce oxygen through photosynthesis, which is essential for animal life. They also help regulate the climate and provide food.

Exit Ticket:

Name three natural resources discussed in the video that are vital for human survival.



Teaching Tips

Teaching Tips: Earth Supports Life

1) Plan for Anticipated Challenges. Here are a few ways students may struggle, and how you can respond:

- **Abstract Concept of Scale:** : If students struggle to grasp the immense scale of Earth and the vast distances involved in understanding its place in the universe, then use analogies, models, or virtual reality simulations to help them visualize these concepts more concretely., Use analogies, models, or virtual reality simulations to help them visualize these concepts more concretely.
- **Interconnected Systems:** : If students have difficulty understanding how Earth's systems (atmosphere, hydrosphere, lithosphere, biosphere) are interconnected and influence each other to support life, then provide case studies or simulations that demonstrate the cause-and-effect relationships between these systems., Provide case studies or simulations that demonstrate the cause-and-effect relationships between these systems.
- **Anthropocentric Bias:** : If students assume that Earth's characteristics are uniquely suited for human life and fail to appreciate the broader range of life forms that exist in diverse environments, then discuss extremophiles and other organisms that thrive in conditions inhospitable to humans to broaden their perspective., Discuss extremophiles and other organisms that thrive in conditions inhospitable to humans to broaden their perspective.

2) Modify for Multilingual Learners. To make this lesson more accessible:

- ➔ **Pre-Teach Key Vocabulary with Visuals:** Before the lesson, identify key vocabulary related to Earth's characteristics (e.g., atmosphere, hydrosphere, biosphere, gravity, orbit). Create a visual glossary with images or diagrams illustrating each term. Share this glossary with ELLs before the lesson begins. During the lesson, refer back to the glossary frequently.
- ➔ **Use Graphic Organizers to Compare and Contrast:** Employ graphic organizers, such as Venn diagrams or T-charts, to help students compare and contrast Earth's characteristics with those of other planets (real or fictional). For example, compare Earth's atmosphere to Mars' atmosphere, or Earth's water cycle to a hypothetical planet's. Provide sentence stems to support their writing (e.g., "Earth has _____, but Mars has _____").
- ➔ **Connect to Students' Prior Knowledge and Experiences:** Begin the lesson by eliciting students' prior knowledge about Earth and its features. Ask questions like, "What are some things you need to survive? Where do you get them?" or "What are some beautiful places you have seen on Earth? What makes them special?" Encourage students to share their experiences related to nature, weather, or different environments. Connect these experiences to the lesson's content about Earth's life-supporting characteristics.

3) Add Creative Activities. In addition to the practice contained in this lesson, here are a few things you can do to spark students' engagement and creativity. Where possible, students should complete these activities in small groups, with teacher support:

- ★ Activity 1: Earth's Resume - Each group creates a 'resume' for Earth, highlighting its key characteristics (liquid water, atmosphere, temperature) as skills and experiences that make it suitable for supporting life.
- ★ Activity 2: Alien Report - Small groups role-play as alien scientists writing a report on Earth, detailing the unique conditions they observe that make it habitable, and explaining why these conditions are important.
- ★ Activity 3: Survival Challenge - Each group imagines a scenario where one of Earth's key characteristics is removed (e.g., no atmosphere) and brainstorms how life could potentially adapt or survive under these altered conditions.