

Lesson topic: Solar System: How it works: Moon, Earth, Sun Part 3

Recommended grade level: 9th-12th

Link:

https://www.canva.com/design/DAGvw-tZp2Q/jODESdtQXtx1aSVeEoMRZA/view?utm_content=DAGvw-tZp2Q&utm_campaign=designshare&utm_medium=link2&utm_source=uniquelinks&utm_id=ho5861db3ea

Objective:

By the end of this lesson, students will be able to:

- Understand Earth's position in the solar system and what makes it suitable for life
- Explain Earth's rotation and revolution and how they relate to day, night, and seasons
- Identify Earth's structure and the concept of the Goldilocks Zone
- Recognize how the Sun, Moon, and Earth interact

Slide breakdown:

Slide 1 – Title: "How it works: Earth, Moon, and the Sun"

- Welcome, students, and introduce today's topic.
- Ask: "What do you already know about the Earth, Moon, and Sun?"

Slide 2 – The Earth

- Read about Earth being the third planet.
- Highlight: Earth's orbit takes one year.
- Ask: "Why is being in the 'Goldilocks Zone' important?"

Slide 3 – Goldilocks Zone

- Define it together: Not too hot, not too cold.
- Ask: “Which planets are not in this zone, and why can’t they support life?”

Slide 4 – What Makes Earth Special

- Highlight: 70% water coverage and breathable air.
- Ask: “What are three things Earth has that help humans survive?”

Slide 5 – Earth Shape and Size

- Define an oblate spheroid in kid-friendly language.
- Reinforce how Earth's shape helps with gravity and atmosphere.

Slide 6 – Earth’s Rotation

- Explain rotation = spinning on its axis.
- Link to day and night.
- Do a mini activity: Have students slowly spin in place to feel rotation.

Slide 7 – Day and Night

- Revisit the concept using the diagram.
- Ask: “What do you think would happen if Earth stopped spinning?”

Slide 8 – Earth’s Revolution

- Define revolution = moving in a circle around the Sun.
- Reinforce: 365 days = 1 year.

Slide 9 – The Goldilocks Zone in Context

- Recap Venus, Earth, and Mars.
- Quick group discussion: “If we had to live on Mars, what would we need to survive?”

Slide 10 – Earth’s Tilt and Seasons

- Explain the 23.5-degree tilt.
- Use visuals or models to show tilt + revolution = seasons.
- Ask: “What season is it now and why?”

Slide 11 – Earth’s Layers

- Introduce crust, mantle, outer core, and inner core.
- Use a hard-boiled egg or a cut fruit to show layers visually.

Slide 12-18

- Quiz slides
- Ask students to raise their hands to answer.

Post-lesson activity:

- Make a short story from the Earth, Moon, or Sun's perspective

You’ve now completed this lesson plan!

If you have any feedback on how to improve this lesson or future lesson plans, please email: foreverychildus@gmail.com

If you have any topics for future lesson plan ideas, please email: foreverychildus@gmail.com

This lesson plan was designed by high school and college students in the student-led organization called For Every Child. Thank you for using our lesson plan, and we hope you enjoyed it!