



Destination Space 3-5

Grades 3-5 (9 book set)

Have you ever wondered what is in space? Will “aliens take over the planet? Through infographics, poetry, fact files, stories, guides, math quests, and fantastic hands-on activities find your way in space and learn about the wonders of the universe.

Books in this set: Destination: Space, A Rocketful of Space Poems, Night Sky Watcher, 50 Things You Should Know About Space, Planet of Puzzles, Awesome Astronomy, Find Your Way in Space, The Story of Space, Mission Critical: Mars

Learning Objectives: To understand our place in the universe, how motions of our Earth affect our lives and how technology helps study the universe.

Essential Questions in This unit:

- What is our place in the universe?
- Where is Earth in the solar system and why are there cycles on Earth?
- How do the motions of Earth and the Moon affect our lives?
- How does the Earth’s atmosphere impact life on the Earth?

Read to find out:

1. How has technology aided us in our study of the universe?
2. How does the relationship between the Earth and Sun create changes over time encompassing the water cycle, climate and weather, and seasonal patterns?
3. How does the position of Earth in the solar system affect the conditions on our planet?
4. How does the Earth’s atmosphere impact life on the Earth?
5. How does the rotation of the Earth affect the Earth’s seasons?
6. How does space exploration help humans to solve problems on Earth?
7. Why is the power of gravity so important to the solar system?
8. How do we know that the universe is continuously evolving/expanding?
9. Describe how night and day are caused by Earth's rotation.
10. What are the constellations?
11. How and why were stars and constellations important to ancient peoples?

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12. How were constellations important to humans?
 13. Explain Earth's relationship to the sun, moon and other planets.
 14. Describe the characteristics of Earth and its orbit about the sun (e.g., three-fourths of Earth's surface is covered by a layer of water [some of it frozen], the entire planet surrounded by a thin blanket of air, elliptical orbit, tilted axis and spherical planet).
 15. What are stars?
 16. What exactly is the Sun?
 17. Are there other "suns" in the universe?
 18. What is apparent path of the Sun, as seen from Earth?
 19. Find evidence from different books in the unit to explain-
 - Over the course of a day, half of the Earth is always illuminated by the Sun causing day, and the half not illuminated by the Sun experiences nighttime.
 - The cycle from day to night is caused by the Earth's rotation. Earth undergoes one complete rotation about every 24 hours.
 - The Moon orbits the Earth.
 - The appearance of the Moon changes as it moves through its orbit. These changes are called phases.
 - The Sun is much larger than the Moon.
 - Although the Moon is closer to Earth than the Sun, the two appear to be the same size when viewed from Earth. This is because objects appear smaller as the distance from the viewer increases.
 - Mercury, Venus, Mars, Jupiter, Saturn, Uranus, and Neptune are also planets that orbit the sun.
 - Earth is the third planet from the sun.
 - Pluto is a dwarf planet that orbits the sun.
 - Asteroids and meteors orbit the sun.
 - Some stars are large and some stars are small.
 - Stars are so far away that they look like little points of light.
 - Three-fourths of Earth's surface is covered by water.
 20. Where is Earth in the solar system and why are there cycles on Earth?
 21. What are the three major spheres of Earth?
 22. What is Earth's lithosphere? Hydrosphere? Atmosphere?
 23. How are day and night on Earth created?
 24. What is special about Earth's axis?

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25. What happens when Earth orbits around the sun?
26. What happens when the Moon orbits around the Earth?
27. What else orbits the sun?
28. Correct the sentence to make it true IF it is false. Work in small groups and find evidence to support your answers.

- ✓ The water on Earth moves through the atmosphere in the water cycle.
- ✓ Water found at the North and South poles is running.
- ✓ The Earth is surrounded by a thin blanked of air.
- ✓ Earth rotates on an axis.
- ✓ The Earth's axis is not tilted.
- ✓ Earth's rotation on its axis causes spring and fall.
- ✓ Orbit means to fly around an object.
- ✓ Earth is a planet that orbits the moon.
- ✓ As Earth orbits the sun, seasons occur.
- ✓ The Moon orbits Earth.
- ✓ We see different phases of the moon as it orbits Earth.
- ✓ The Moon causes seasons on Earth.
- ✓ The Earth has an elliptical orbit.
- ✓ The Earth is an oval planet.
- ✓ The Earth is an extra-terrestrial planet.

For more information on this topic, please refer to the books below:

9781609929626	50 Things You Should Know About Space
9781682970249	Awesome Astronomy
9781847808400	Destination: Space
9781682970478	Find Your Way In Space
9780760354919	Mission Critical: Mars
9781609929541	Night Sky Watcher
9781682970102	Math Quest: Planet of Puzzles
9781847804860	Rocketful of Space Poems, A
9781786030030	Story of Space, The

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