Science A–Z

THE SOLAR SYSTEM (3–4)

Correlation of Resources to National Science Standards

Use the chart below to discover how selected Science A–Z resources in The Solar System unit support certain Next Generation Science Standards (NGSS). While a single reading resource, science activity, comprehension support, or lesson cannot satisfy an entire Performance Expectation, using these resources together can help students develop the understandings and abilities they will need in order to satisfy each standard listed below. Most standards cited align with the grade level of this Science A–Z unit. For a reverse correlation tool that connects the standards to resources, visit our NGSS correlations page: www.sciencea-z.com/main/NextGenerationScienceStandards.*

Check the Performance Expectations Key below this chart for the complete text of the standards cited for each resource.

Resource Type	Resource Title	Performance Expectations
Unit Nonfiction Book	*The Solar System* (3 reading levels)	**3-PS2-2; 5-PS2-1; 5-ESS1-1; MS-ESS1-1; MS-ESS1-2**
Process Activity	*Orbital Paths*	**3-PS2-2; 5-PS2-1; 5-ESS1-2; MS-ESS1-1; MS-ESS1-3**
FOCUS Book	*Missions to Mars*	**3-5-ETS1-1; 3-5-ETS1-2**
FOCUS Book	*Comets*	**3-PS2-2; MS-ESS1-3**
FOCUS Book	*The Asteroid Belt*	**3-PS2-1; MS-ESS1-3**
FOCUS Book	*The Outer Solar System*	**MS-ESS1-2; MS-ESS1-3**
FOCUS Book	*Galileo's Moons*	**3-5 ETS1-2; MS-ESS1-3**
Investigation Pack	Topic: Planets I. Files: *Saturn; Earth; Jupiter; Mars; Neptune; Venus* Mystery File: *Titan*	**MS-ESS1-2; MS-ESS1-3**
Debate	*Moon Mission*	**3-5-ETS1-1**
Science Video	*A Guided Tour of the Moon*	**MS-ESS1-1**
Science Video	*Asteroids*	**MS-ESS1-3**
Science Video	*Earth's Sister Planet--Venus*	**MS-ESS1-3**
Science Video	*First Spacecraft at Uranus*	**3-PS2-3; MS-ESS1-2**
Science Video	*How Does a Lunar Eclipse Work?*	**MS-ESS1-1**
Science Video	*Hubble's Eye on the Universe*	**MS-ESS1-3**
Science Video	*Interstellar Voyager*	**MS-ESS1-3**
Science Video	*JunoCam in Jupiter's Orbit* (no audio)	**MS-ESS1-3**

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Resource Type	Resource Title	Performance Expectations
Science Video	*Jupiter's Moons*	**3-PS2-2; MS-ESS1-3**
Science Video	*Mars Rover Anniversary*	**MS-ESS1-3**
Science Video	*Mars Rover Curiosity*	**MS-ESS1-3**
Science Video	*Mars in a Minute: How Do You Get to Mars?*	**3-PS2-2; 3-5-ETS1-1**
Science Video	*Mars in a Minute: Is Mars Really Red?*	**4-ESS1-1**
Science Video	*Our Dynamic Sun*	**MS-ESS1-3**
Science Video	*Saturn Moon Ballet*	**3-PS2-2; MS-ESS1-3**
Science Video	*Spirit Looks Back*	**MS-ESS1-3**
Science Video	*Sun Grazer*	**MS-ESS1-2; MS-ESS1-3**
Science Video	*The Solar Cycle*	**3-PS2-3; 5-ESS1-2**
Science Video	*What Is a Solar Eclipse?*	**MS-ESS1-1**
Career Files	*Astronaut; Planetary Geologist; Spacesuit Designer*	**4-ESS1-1; 4-ESS2-1; 4-ESS2-2; 3-5-ETS1-2**
Quick Read	*Pluto* (3 reading levels)	**MS-ESS1-3**
Quick Read	*Trips to Mars* (3 reading levels)	**4-ESS1-1; 4-ESS2-1**
Science Diagram	*Formation of the Solar System*	**MS-ESS1-2**
Science Diagram	*Inside a Star*	**5-ESS1-1**
Science Diagram	*Lunar Eclipse*	**MS-ESS1-1**
Science Diagram	*Phases of the Moon*	**MS-ESS1-1**
Science Diagram	*Planets in Our Solar System*	**MS-ESS1-3**
Science Diagram	*Types of Stars*	**5-ESS1-1**

Performance Expectations Key

3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.

3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.

3-PS2-3. Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.

4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

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4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features.

5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

5-ESS1-2. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.