



Science Scope and Sequence

	Quarter: 1	Quarter2	Quarter 3	Quarter 4
Strand	Life Science	Earth and Space Science	Physical Science	Physical Science
Topic	<p>Interconnections within Ecosystems This topic focuses on foundational knowledge of the structures and functions of ecosystems.</p>	<p>Cycles and Patterns in the Solar System <i>This topic focuses on the characteristics, cycles and patterns in the solar system and within the universe.</i></p>	<p>Light, Sound and Motion This topic focuses on the forces that affect motion. This includes the relationship between the change in speed of an object, the amount of force applied and the mass of the object. Light and sound are explored as forms of energy that move in predictable ways, depending on the matter through which they move</p>	<p>Light, Sound and Motion This topic focuses on the forces that affect motion. This includes the relationship between the change in speed of an object, the amount of force applied and the mass of the object. Light and sound are explored as forms of energy that move in predictable ways, depending on the matter through which they move</p>
Content Statement	<p>5.LS.1: Organisms perform a variety of roles in an ecosystem. Populations of organisms can be categorized by how they acquire energy. Food webs can be used to identify the relationships among producers, consumers and decomposers in an ecosystem.</p> <p>5.LS.2: All of the processes that take place within organisms require energy. For ecosystems, the major source of energy is sunlight. Energy entering ecosystems as sunlight is transferred and transformed by producers into energy that organisms use through the process of photosynthesis. That energy is used or stored by the producer and</p>	<p>5.ESS1: The solar system includes the sun and all celestial bodies that orbit the sun. Each planet in the solar system has unique characteristics. The distance from the sun, size, composition and movement of each planet are unique. Planets revolve around the sun in elliptical orbits. Some of the planets have moons and/or debris that orbit them. Comets, asteroids and meteoroids orbit the sun.</p> <p>5.ESS.2: The sun is one of many stars that exist in the universe. The sun appears to be the largest star in the sky because it is the closest star to Earth. Some stars are larger than the sun and some stars are smaller than the sun.</p>	<p>5.PS.1: The amount of change in movement of an object is based on the mass of the object and the amount of force exerted. Movement can be measured by speed. The speed of an object is calculated by determining the distance (d) traveled in a period of time (t). Any change in speed or direction of an object requires a force and is affected by the mass of the object and the amount of force applied. Note: Differentiating between mass and weight is not necessary at this grade level.</p>	<p>5.PS.2: Light and sound are forms of energy that behave in predictable ways. Light travels and maintains its direction until it interacts with an object or moves from one medium to another and then it can be reflected, refracted or absorbed. Sound is produced by vibrating objects and requires a medium through which to travel. The rate of vibration is related to the pitch of the sound.</p>

WHCSD Scope and Sequence

5th Grade

Science

2021-2022

	can be passed from organism to organism as illustrated in food webs.	5.ESS.3: Most of the cycles and patterns of motion between the Earth and sun are predictable. Earth’s revolution around the sun takes approximately 365 days. Earth completes one rotation on its axis in a 24-hour period, producing day and night. This rotation makes the sun, stars and moon appear to change position in the sky. Note: Moon phases should not be the focus.		
Resources	Inspire Science McGraw Hill ODE Model Curriculum	Inspire Science McGraw Hill ODE Model Curriculum	Inspire Science McGraw Hill ODE Model Curriculum	Inspire Science McGraw Hill ODE Model Curriculum
STEAM	STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug	STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug	STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug	STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug
Notes				At this grade level, the discussion of light and sound should be based on observable behavior. Waves are introduced at the middle school level
Vocabulary				

SCIENCE INQUIRY AND APPLICATIONS

During the years of grades 5 through 8, all students must have developed the ability to:

SIA 1:Identify questions that can be answered through scientific investigations;

SIA 2:Design and conduct a scientific investigation; Use appropriate mathematics, tools and techniques to gather data and information

SIA 3:Analyze and interpret data; Develop descriptions, models, explanations and predictions;

SIA 4:Think critically and logically to connect evidence and explanations;

SIA 5:Recognize and analyze alternative explanations and predictions;

SIA 6: Communicate scientific procedures and explanations.