

### 3<sup>rd</sup> - 4<sup>th</sup> Grade Year 1 Overview

Subject	Grade-Level Focus
<b>Mathematics</b>	Fluently perform the Four Processes to quantify observations about abstract, manmade, and natural patterns. Use geometry to create a model patterns and forms.
<b>Science</b>	Observe and experience Earth's systems and explore the connection of all life through water and the Sun.
<b>English Language Arts</b>	Use a combination of drawing, dictating, speaking, writing, and digital media to express imagination and ideas, craft stories, communicate meaning, explore oneself, connect and relate experiences with others, and retell/re-enact stories to foster kinship with the community and nature.
<b>Social Studies</b>	Explore stories, various sources and perspectives, symbols, diverse ideas, and shared experiences to connect events, study place and it's changes, and explore the evolution of culture, community, and civilizations.
<b>Outdoor Education</b>	Practice the 7 Leave No Trace Principles without prompting. Show understanding that humans are a part of our environment, and instrumental in protecting and preserving nature. Observe and describe Earth systems and cycles that affect all life and that are affected by humans.
<b>Problem-Solving, Science, and Engineering Practices</b>	Apply grade-level practices for solving problems, inquiry, and engineering solutions.
<b>Year 1 NPS Project</b>	<b>Water Quality</b>

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Unit Title	Unit Goal
<b>Books</b>	<p>Students reflect on their own reading and reading challenges, from accessing books in a physical sense or from barriers related to their own reading abilities. Students articulate how access to school and books varies across America and the world, and how access affects children and impacts learning and reading. Students reflect on how books impact their own lives and explore strategies to overcome reading challenges and barriers to access. The unit culminates by creating an audiobook and reviewing the work of children who have pioneered sharing books with other children.</p> <p><i>I can explore how access to books impacts life and learning and reflect on how reading affects my own life and learning. I can cultivate and share strategies to overcome challenges to reading and barriers to accessing books.</i></p>
<b>Riparian Ecology</b>	<p>Students explore the diversity and characteristics of local riparian zones as a way to explore the question “where do frogs live?” Freshwater ecosystems are differentiated between flowing and stationary water with a specific focus on studying qualities specific to the riparian zone, where frogs would be found. The role of frogs and classification of animals is used as a foundation for examining riparian zones and their importance within a freshwater ecosystem. Students investigate indications of health within riparian zones and the ways these areas are impacted from severe weather, geologic events, and humans. Students design solutions for the restoration and preservation of unhealthy riparian zones.</p> <p><i>I can examine the biodiversity of riparian zones, define their characteristics, and design ways we can restore and preserve these fragile ecosystems.</i></p>
<b>Ecosystems</b>	<p>Students continue to study frogs in the EL ELA lessons. Frogs are found on every continent, except Antarctica. Students explore various places and ecosystems where frogs live as a basis for defining distinct characteristics of the 10 major types of ecosystems: rainforest, temperate forest, taiga, tundra, grasslands, desert, chaparral, savanna, freshwater, and marine (including coral reefs). Students investigate the 6 major biomes (it is not necessary to distinguish between biome and ecosystem and ecosystem can just be used) within Arizona: desert, grassland, chaparral, woodland, forest, and tundra. Using globes, maps, and google earth, students find other parts of the world that have the same types of ecosystems and examine their similarities and differences.</p> <p><i>I can define and illustrate characteristics of the major types of ecosystems of the world and show where they are found on a map of the world.</i></p>
<b>Storytelling</b>	<p>NOTE: Use EL G4M1 from EngageNY as reference</p>

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	<p>Students explore methods and the art of storytelling and how various cultures share and perpetuate their stories. Students examine how personal stories are told and the impact of stories on the development of identity. Students read and listen to stories about Page, Arizona, the Southwest, and Four Corners to identify their role in the development of culture and society. Students create their own stories and watch them evolve as others tell them, critiquing written and oral techniques. Guest speakers are invited in as frequently as possible to share stories, storytelling methods, and the importance of storytelling.</p> <p><i>I can identify the role of storytelling in my own life and in the evolution of culture and society. I can create my own stories and watch them evolve as others tell them.</i></p>
Earth	<p>Students make observations about Earth's systems and their interactions (geosphere (lithosphere), biosphere, hydrosphere, atmosphere, and anthroposphere) and how these interactions affect the distribution of surface materials, resources, water, and landforms. Patterns such as weather, geology, plate tectonics, erosion, and the transformation of energy are explored as results of interactions from Earth's major systems. All systems are studied as interconnected cycles, that affect all life on Earth. Students make observations about human's impact on these systems, and how these systems impact life for humans.</p> <p><i>I can plan and carry out an investigation to explore and explain Earth's major systems, their interactions, and how these interactions impact surface materials, processes, resources, water, landforms, and life.</i></p>
Water	<p>Students investigate water issues of the southwest to inform their expedition's Exhibition of Learning where they define the issue, it's causes and effects, and examine/create potential solutions. Our impact, and the impact of these issues on us, is used as a basis for studying the watershed and where else in the world the same issues exist. Students explore the role of water in sustaining life and how the availability of water affects life. Students carry out phase change investigations and define properties and characteristics of the four states of water (including plasma). Students study patterns that water makes and how water carries and transmits information and energy. Students define how water has shaped the land based on observation and identify ways to find water in the desert and places that water is found. Students identify how water is stored in the body, and define the water content of our bodies.</p> <p><i>I can investigate the availability of water, in its various states and places it is found, and define its impact on life.</i></p>