Marysville School District Elementary School Science Plan

**Fifth Grade**

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| Unit/Topic | NGSS Performance Expectations and Evidence Statements | Mystery Science Lesson | Science and Engineering Lesson Ideas and Resources | ReadyGen ELA Curriculum Connection |
| [Life Science](http://www.nextgenscience.org/topic-arrangement/5matter-and-energy-organisms-and-ecosystems) | [**5-PS3-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=111) **Use models to describe that the energy in animals’ food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.**  [**5-PS3-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS3-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-LS1-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=112) **Support an argument that plants get the materials they need for growth chiefly from air and water.**  [**5-LS1-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-LS1-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-LS2-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=113) **Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.**  [**5-LS2-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-LS2-1%20Evidence%20Statements%20June%202015%20asterisks.pdf) | [Web of Life](https://mysteryscience.com/ecosystems/ecosystems-the-food-chain) | * [**Weaving the Web**](http://ngss.nsta.org/Resource.aspx?ResourceID=93) * [**Bottle Biology Terrarium**](http://ngss.nsta.org/Resource.aspx?ResourceID=94) * [**Wetlands Are Wonderlands**](http://ngss.nsta.org/Resource.aspx?ResourceID=96) * [**Experiment with Ecosystems**](http://ngss.nsta.org/Resource.aspx?ResourceID=265) * [**Biodomes Engineering Design Project**](http://ngss.nsta.org/Resource.aspx?ResourceID=288) | ***Unit 1***   * Night of the Spadefoot Toads * Hatchet * Rainforest Food Chains * Pale Male * Sleuth: “Fishy Business!”; “Welcome to the Neighborhood?” |
| Earth and Space Science | [**Earth Systems**](http://www.nextgenscience.org/topic-arrangement/5earth%E2%80%99s-systems)  [**5-ESS2-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=119) **Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.**  [**5-ESS2-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-ESS2-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-ESS2-2**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=121) **Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.**  [**5-ESS2-2 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-ESS2-2%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-ESS3-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=123) **Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.**  [**5-ESS3-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-ESS3-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**Space Systems: Stars and the Solar System**](http://www.nextgenscience.org/topic-arrangement/5space-systems-stars-and-solar-system)  [**5-PS2-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=110) **Support an argument that the gravitational force exerted by Earth on objects is directed down.**  [**5-PS2-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS2-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-ESS1-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=114) **Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from the Earth.**  [**5-ESS1-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-ESS1-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-ESS1-2**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=115) **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.**  [**5-ESS1-2 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-ESS1-2%20Evidence%20Statements%20June%202015%20asterisks.pdf) | [Our Changing Earth](https://mysteryscience.com/earth/earth-s-systems-earth-s-surface-resources)  \*Release in Feb. 2017  [Spaceship Earth](https://mysteryscience.com/astronomy/sun-moon-stars-planets) | ***Earth Systems***   * [**NOAA What-a-Cycle**](http://ngss.nsta.org/Resource.aspx?ResourceID=13) * [**Global Water Distribution**](http://ngss.nsta.org/Resource.aspx?ResourceID=37) * [**Shower Curtain Watershed**](http://ngss.nsta.org/Resource.aspx?ResourceID=64) * [**Simulating an Oil Spill to Understand Environmental Impact**](http://ngss.nsta.org/Resource.aspx?ResourceID=65)   ***Space Systems: Stars and the Solar System***   * [**Kinesthetic Astronomy - Sky Time Lesson**](http://ngss.nsta.org/Resource.aspx?ResourceID=29) * [**Journey North Mystery Class – What Makes Day and Night**](http://ngss.nsta.org/Resource.aspx?ResourceID=98) * [**Journey North Mystery Class – Photoperiod**](http://ngss.nsta.org/Resource.aspx?ResourceID=101) * [**All About the Sun: Sun and Stars**](http://ngss.nsta.org/Resource.aspx?ResourceID=485) * [**Motion of the Sun Simulator**](http://ngss.nsta.org/Resource.aspx?ResourceID=486) * [**How Big, How Far, How Hot, How Old?**](http://ngss.nsta.org/Resource.aspx?ResourceID=488) * [**Emmy’s Moon and Stars and Where Are The Stars?**](http://ngss.nsta.org/Resource.aspx?ResourceID=491) * [**Como Planetarium: The Sun's Path**](http://ngss.nsta.org/Resource.aspx?ResourceID=492) * [**Como Planetarium: Night and Day**](http://ngss.nsta.org/Resource.aspx?ResourceID=494) | ***Unit 1***   * Night of the Spadefoot Toads * Sleuth: “Fishy Business!”; “Welcome to the Neighborhood?”   ***Unit 3***   * George’s Secret to the Universe * Sleuth: “Technology and Treasure”   ***Unit 3***   * George’s Secret Key to the Universe * The Man Who Went to the Far Side of the Moon * Mayday on Moon of Jupiter * Jess and Layla’s Astronomical Assignment * Our Mysterious Universe * A Black Hole is NOT a Hole * Sleuth: “Careers in the Space Industry”; “Charlotte’s Space Travel”; “Moving to Mars” |
| [Physical Science](http://www.nextgenscience.org/topic-arrangement/5structure-and-properties-matter) | [**5-PS1-1**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=99) **Develop a model to describe that matter is made of particles too small to be seen.**  [**5-PS1-1 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS1-1%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-PS1-2**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=102) **Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.**  [**5-PS1-2 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS1-2%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-PS1-3**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=103) **Make observations and measurements to identify materials based on their properties.**  [**5-PS1-3 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS1-3%20Evidence%20Statements%20June%202015%20asterisks.pdf)  [**5-PS1-4**](http://ngss.nsta.org/DisplayStandard.aspx?view=pe&id=104) **Conduct an investigation to determine whether the mixing of two or more substances results in new substances.**  [**5-PS1-4 Evidence Statements**](http://www.nextgenscience.org/sites/default/files/evidence_statement/black_white/5-PS1-4%20Evidence%20Statements%20June%202015%20asterisks.pdf) | [Chemical Magic](https://mysteryscience.com/chemistry/chemical-reactions-material-properties)  \*Release in Oct. 2016 | * [**Taking the “Mystery” Out of Argumentation**](http://ngss.nsta.org/Resource.aspx?ResourceID=18) * [**Water, A Liquid**](http://ngss.nsta.org/Resource.aspx?ResourceID=120) * [**Modeling Particles of Matter**](http://ngss.nsta.org/Resource.aspx?ResourceID=154) * [**Chemical Cafe**](http://ngss.nsta.org/Resource.aspx?ResourceID=385) * [**Mystery Powders**](http://ngss.nsta.org/Resource.aspx?ResourceID=419) * [**Cookie Crumbles- Uncovering Student Ideas in Science, Volume 1: 25 Formative Assessment Probes (PDF e-book)**](http://ngss.nsta.org/Resource.aspx?ResourceID=444) * [**Seedlings in A Jar-Uncovering Student Ideas in Science, Volume 1: 25 Formative Assessment Probes (PDF e-book)**](http://ngss.nsta.org/Resource.aspx?ResourceID=504) | ***Unit 3***   * George’s Secret to the Universe * A Black Hole Is NOT a Hole |