# NGSS Storyline - Eugene - Physical Science Modules

| | K | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | **Materials & Motion** | **Sounds and Light** | **Solids and Liquids** | **Motion and Matter** | **Energy** | **Mixtures and Solutions** |
| **ESS Performance Expectations** | **K-PS2-1** Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.<br><br>**K-PS2-2** Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. *<br><br>**K-PS3-1** Make observations to determine the effect of sunlight on Earth's surface.<br><br>**K-PS3-2** Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. * | **1-PS4-1** Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.<br><br>**1-PS4-2** Make observations to construct an evidence-based account that objects can be seen only when illuminated.<br><br>**1-PS4-3** Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.<br><br>**1-PS4-4** Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance. * | **2-PS1-1** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.<br><br>**2-PS1-2** Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. *<br><br>**2-PS1-3** Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.<br><br>**2-PS1-4** Construct an argument with evidence that some changed caused by heating or cooling can be reversed and some cannot. | **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.<br><br>**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.<br><br>**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.<br><br>**3-PS2-4** Define a simple design problem that can be solved by applying scientific ideas about magnets. * | **4-PS3-1** Use evidence to construct an explanation relating the speed of an object to the energy of that object.<br><br>**4-PS3-2** Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.<br><br>**4-PS3-3** Ask questions and predict outcomes about the changes in energy that occur when objects collide.<br><br>**4-PS3-4** Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. *<br><br>**4-PS4-1** Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.<br><br>**4-PS4-2** Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.<br><br>**4-PS4-3** Generate and compare multiple solutions that use patterns to transfer information. * | **5-PS1-1** Develop a model to describe that matter is made of particles too small to be seen.<br><br>**5-PS1-2** 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.<br><br>**5-PS1-3** Make observations and measurements to identify materials based on their properties.<br><br>**5-PS1-4** Conduct an investigation to determine whether the mixing of two or more substances results in new substances.<br><br>**5-PS2-1** Support an argument that the gravitational force exerted by Earth on objects is directed down.<br><br>**5-PS3-1** Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. |