

Joliet Public Schools District 86
Grade 1 Science Curriculum

Unit Title	NGSS Standards	Unit Overview
<p><u>Vibrations & Illuminations</u></p> <p>Trimester 1</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● 1-PS4-1 - Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. ● 1-PS4-2 - Make observations to construct an evidence-based account that objects can be seen only when illuminated. ● 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. ● 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. 	<p>This unit examines the idea that objects can be seen if they give off their own light or if there is light to illuminate them. Students will demonstrate that some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach.</p> <p>This unit also addresses the concept that sound can make matter vibrate, and vibrating matter can make sound. This connects to the idea that people also use a variety of devices to communicate (send and receive information) over long distances.</p>
<p><u>Patterns of Earth and Space</u></p> <p>Trimester 2</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● ESS1-1 - Use observations of the sun, moon, and stars to describe patterns that can be predicted. ● ESS1-2 - Make observations at different times of the year to relate the amount of daylight to the time of year. 	<p>This unit identifies that the sun, moon, and stars follow a pattern of movement in the sky. Students will understand that the patterns can be predicted to determine sunrise, sunset, and weather.</p>
<p><u>Parent/Offspring Survival</u></p> <p>Trimester 3</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● 1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. ● 1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. ● 1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. 	<p>This unit connects with the previous unit by explaining how seasonal patterns of sunrise and sunset can be connected to the idea that plants have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow through the concept of sunlight, which varies by season and is captured by plants, mostly through their leaves so that they can grow and survive. Students will use observations about plants and animals to mimic certain survival techniques, identify how offspring survive and how offspring are similar but not exactly the same as their parents.</p>