U46 ACADEMIC SUCCESS FOR ALL

OFFICE OF K-12
SCIENCE & PLANETARIUM

SCIENCE PARENT NEWSLETTER

FIRST GRADE | UNIT 1 | PHYSICAL SCIENCE

IN SCHOOL...

Students will learn phenomena of Physical Science and specifically formulate answers to questions such as: **"What happens when materials vibrate?"** and "**What happens when there is no light?"** Students are expected to develop understanding of the relationship between sound and vibrating materials as well as between the availability of light and ability to see objects. The idea that light travels from place to place can be understood by students at this level through determining the effect of placing objects made with different materials in the path of a beam of light. The crosscutting concepts of patterns; cause and effect; structure and function; and influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. In the first grade performance expectations, students are expected to demonstrate grade-appropriate proficiency in planning and carrying out investigations, analyzing and interpreting data, constructing explanations and designing solutions, and obtaining, evaluating, and communicating information. Students are expected to use these practices to demonstrate understanding of the core ideas.

STUDENTS WILL KNOW...	**STUDENTS WILL BE ABLE TO...**
● When light comes in contact with different materials, it reacts in different ways. ● Sound moves in waves and can make materials vibrate. ● Sound waves can move in different ways and cover great distances.	● Plan and conduct investigations collaboratively to produce data to serve as the basis for evidence to answer a question. ● Use tools and materials provided to design a device that solves a specific problem.

AT HOME...

ASK YOUR STUDENTS...	**ENGAGE YOUR STUDENTS...**
● What happens when materials vibrate? ● What happens when there is no light?	● Identifying different sources of light. ● Testing properties of different materials. (color, density, mass, strength, or texture) ● Exploring how speakers work.

IN THE COMMUNITY…

- Visit a retail electronics store to identify how different materials are used to reduce sound in public places
- Keep a journal of how sound travels in different environments (i.e. the forest, downtown or in water)
- Take the family to Northern Illinois University STEMFEST Saturday, October 21, 2017. Click here for a link to STEMFEST.

U46 STEM EXPO...

Create a project that:

- Demonstrates how material/s vibrate and can make sounds.
- Demonstrate the effect of placing objects in the path of light.
- Use a tool to design a device that uses light or sound to solve a problem of communicating over a long distance.