Name of Demonstration: Sound and Light

Description of Demonstration: We will ponder the characteristics and behaviors of sound and light and the mechanisms by which they are produced, propagated, and detected. We will explore the nature of each and provide an entertaining sound and light show to bring us to a sensory crescendo. Ages 10 and up.

MN SCIENCE Grad Stand/Strand/Sub-strand: Number####:

1P 1.2.1.1, 1P 2.1.1.1, 1P 3.2.2.1
3P 1.1.1.1, 3P 1.2.1.1, 3P 3.1.1.1
8P 3.1.1.4, 8P 4.2.1.2

Grade Level(s): 1st through 8th Grades

Content Area(s): Physical Science

1. I can explain which materials have the best properties for producing or transmitting sounds.
2. I can explain the affect placed on objects, made of different materials, have on the path of a beam of light.
3. I can explain, using a model, that light reflecting from objects and entering the eye allows objects to be seen.

Essential Question(s):

1. Which materials have the best properties for producing and transmitting sounds?
2. How does a light beam affect materials and objects?
3. How can the eye see objects (reflecting)?
4. What produces waves?

Key Vocabulary: Volume, Pitch, Waves, Vibrations, Amplify, Frequency, Resonate, Ear and drum, Energy, Compression, Transverse, Additive vs Subtractive, Color.

Prerequisite Terms: Beam, Detect, Differences, Propagate, Properties, Reflect, Similarities, Transmit