

## YOU ARE THE TEACHER!

Students will be asked to "create" a demonstration to illustrate one of the characteristics or properties of heat, light, or sound.

1. Choose a **Standard** and **Objective** to explore, research, and guide their learning.
2. Choose an activity to demonstrate heat, light, or sound. (I have several you may use, or you may choose your own from the Internet or other resource you may have.)
3. Discover "why" it works, "what" your demonstration is showing, and "how" it shows the properties/characteristics of heat, light, or sound.
4. Create a 3-5 minute presentation that shows the scientific why behind the presentation. Students will teach the class the science behind the demonstration.

Students will use the 6<sup>th</sup> grade science curriculum to choose their topic, guide their research, presentation, and demonstration.

**Standard**

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**Objective**

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**STANDARD VI: Students will understand properties and behavior of heat, light, and sound.**

- Objective 1: Investigate the movement of heat between objects by conduction, convection, and radiation.

- o Compare materials that conduct heat to materials that insulate the transfer of heat energy.
- o Describe the movement of heat from warmer objects to cooler objects by conduction, convection, and radiation.

**STANDARD VI: Students will understand properties and behavior of heat, light, and sound.**

- Objective 2: Describe how light can be produced, reflected, refracted, and separated into visible light of various colors.

- o Compare light from various sources (e.g., intensity, direction, color).
- o Compare the reflection of light from various surfaces (e.g., loss of light, angle of reflection, reflected color, transparent, translucent, opaque).
- o Investigate and describe the refraction of light passing through various materials (e.g., prisms, water).
- o Describe the appearance of various materials when light of different colors is shone on the material.

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- Objective 3: Describe the production of sound in terms of vibration of objects that create vibrations in other materials.

- o Describe how sound is made from vibration and moves in all directions from the source in waves.
- o Explain the relationship of the size and shape of a vibrating object to the pitch of the sound produced.
- o Relate the volume of a sound to the amount of energy used to create the vibration of the object producing the sound.