COLORS HERE AND COLORS THERE



Lesson Summary:

Students experiment with filters to see the effects on the spectrum visible to them. They also make measurements of the light spectrum displayed in the classroom to learn if all color bands in the light spectrum are the same thickness.

Objectives:

The student will:

- discover filters do not color the light;
- determine filters block light; and
- conclude not all color bands in the visible spectrum are the same thickness.

GLEs Addressed:

Science

- [5] SA1.2 The student demonstrates an understanding of the processes of science by using quantitative and qualitative observations to create inferences and predictions.
- [6] SA1.2 The student demonstrates an understanding of the processes of science by collaborating to design and conduct simple repeatable investigations.
- [7] SA1.2 The student demonstrates an understanding of the processes of science by collaborating to design and conduct simple repeatable investigations, in order to record, analyze (i.e., range, mean, median, mode), interpret data, and present findings.
- [8] SA1.2 The student demonstrates an understanding of the processes of science by collaborating to design and conduct repeatable investigations, in order to record, analyze (i.e., range, mean, median, mode), interpret data, present findings.
- [6] SB2.1 The student demonstrates an understanding of how energy can be transformed, transferred, and conserved by recognizing that energy can exist in many forms (i.e., heat, light, chemical, electrical, mechanical).
- [6] SB4.3 The student demonstrates an understanding of motions, forces, their characteristics, relationships, and effects by making waves move through a variety of media.

Math

- [5] MEA-8 The student demonstrates ability to use measurement techniques by measuring length to the nearest ¹/₄ inch or centimeter (M2.2.1).
- [7] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as science, humanities, peers, and community (M10.3.1 & M10.3.2).
- [8] PS-5 The student demonstrates the ability to apply mathematical skills and processes across the content strands by using real-world contexts such as science, humanities, peers, community, and careers (M10.3.1 & M10.4.2).

Search Terms:

light spectrum