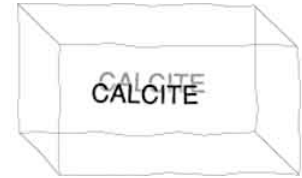


Summary of *Module 4* Activities

Cookie Rack Filter Demonstration: 25 minutes

This interactive demonstration is a model for how unpolarized light and polarized light interact with polarizers. Students manipulate a spring rope and two cookie racks while participating in a discussion about polarized light and filters.



Polarization Exploration Stations: 60 minutes

These four stations introduce your students to several of the optical properties of polarized light. They will see how two polarizing filters affect light, how reflected light can be polarized, that LCD screens emit polarized light, and how substances such as mica and Karo syrup affect polarized light.

I'm Under a Lot of Stress Here! 45 minutes

Students discover how polarization can be used as a tool in engineering in this activity. The students will work in small groups analyzing stress and strain in materials such as plastic wrap, hard plastics, and glass.

Tape Art Challenge: 60+ minutes

In "Tape Art Challenge," students will work with the technique of creating color using birefringent materials. They will first discover how to make all the colors of the rainbow and then they will use this knowledge to create a work of art for the whole classroom. The first part of the activity can be done in one session while the final class challenge may take as long as several sessions to plan out and create.



Excuse Me, While I Kiss the Sky! (A Demonstration): 30 minutes

In this demonstration, students will learn why the sky is blue and sunsets are reddish orange. The phenomenon of scattered light will then be used to show where the Sun's polarization band lies.

Science...in 3D! 30 minutes

Students will use red/blue 3D glasses to look at an image of Mars' Gusev Crater, and then explain what they see through each filter as well as both filters together. They then compare the red/blue 3D glasses to those made with polarizing filters.

