The Infrared Kit

Everyone will be sent a kit with a set of objects to help explain both the general properties of light and of IR light in particular.

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The Infrared Kit

- **Sir Frederick William Herschel (1738-1822) was a prolific astronomer.**
- **He constructed many telescopes which he and his sister Caroline used to produce several catalogs of double stars and nebulae.**
- **In 1781 he discovered the planet Uranus. The first new planet since the ones known to the ancients**
- **In 1800 he noticed that the colors of sunlight split by a prism had different temperatures. But the region of highest temperature was a region beyond the color red. He deduced that there was light there and that light is now known as *infrared* (below-red).**

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XIV. *Experiments on the Refrangibility of the invisible Rays of the Sun.* *By* William Herschel, *LL. D. F. R. S.*

Read April 24, 1800.

In that section of my former paper which treats of radiant heat, it was hinted, though from imperfect experiments, that the range of its refrangibility is probably more extensive than that of the prismatic colours; but, having lately had some favourable sunshine, and obtained a sufficient conformation of the same, it will be proper to add the following experiments to those which have been given.

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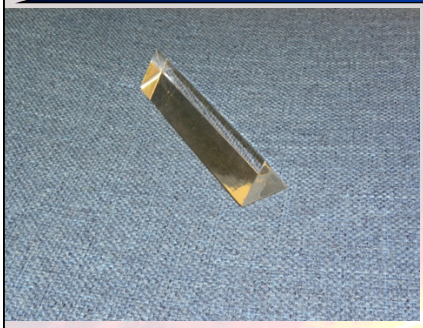

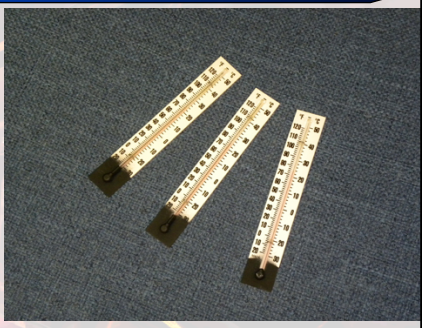

You will get a prism and thermometers and detailed instructions to recreate the Herschel experiment

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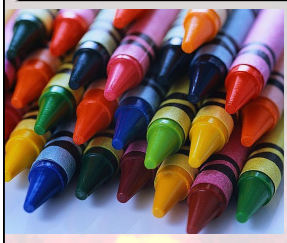
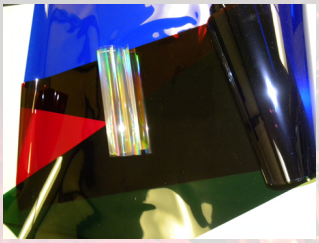


Colored paper, gels, and crayons to demonstrate transmission, reflection, and absorption of light. For example, what does a blue crayon mark look like through a red filter?

Also a diffraction gel to help disperse light.

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An IR thermometer will help you determine how much heat is being emitted from various objects. You can also us it as a single pixel imager and create an image based on multiple pointings.

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The kit also includes worksheets to guide students in their experiments.

We also would like to hear from all the teachers as they come up with new ideas using objects in the kit or what additional objects would be useful to include.

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End IR Kit

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