

Abstract Submitted
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Optics and Light Activities for Teachers of all Grade Levels from Easily Obtainable Supplies RICHARD LINDGREN, CURTIS HENDRICKS, University of Virginia, LYNN LUCATORTO, James Madison University, THOMAS MCNEILUS, Shenandoah Valley Academy, STEPHEN THORNTON, University of Virginia — Several hands-on activities in light and optics covering selected topics will be discussed in the context of home labs and how such activities can be incorporated into a distance-learning or online web-based course utilizing the latest communication technologies and the Internet. The presentation will focus on activities that can be constructed from easy to obtain supplies as well as a commercially available kit that we are having made available. Activities for teachers at the elementary level will focus on understanding light rays, shadows, and reflection from plane surfaces; at the middle school level will focus on curved mirrors and lenses, dispersion, and drawing ray diagrams; at the high school level will focus on Snell's law, the lens equation, wave interference, polarization, Young's experiment, and diffraction. A distance-learning, web-based course based on these home labs will be described.

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