Knowledgeable teachers, innovative teaching, inspired students!

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PROFESSIONAL DEVELOPMENT

Understanding Waves (5–8)

Understanding Waves advances understanding and effective teaching about light waves, the electromagnetic spectrum, and sound waves.

Exemplary practice video in online course

Course Objectives

- Describe the electromagnetic spectrum
- Explain fundamental principles of light absorption and reflection
- Explain the similarities and differences between visible light waves and other kinds of waves, including sound waves
- Examine the use of guiding questions, prediction making, and multiple strategies for teaching these topics

Course Syllabus

Session 1: Light and Sound Waves

Participants explore the nature of light and sound waves and their technology applications.

Session 2: Uncovering What Students Know

In a companion methodology session, participants look at waves in the context of how questioning and prediction strategies can help you uncover a learner's prior knowledge.

Additional Course Information

15 contact hours
Second in a series of four courses for teachers of middle school physical science
Other courses in the series:
1st course: **Understanding Energy Transfer**‡
3rd course: **Understanding Heat Transfer**
4th course: **Understanding Solubility and Density**
A full survey course (45 contact hours), **Teaching Middle School Physical Science**, is also available.

‡ recommended before taking this course

We recommend 2-session courses be taken in order. If this is not possible, it's important to have a basic knowledge of the content and methodology described in the preceding courses.

For information about all Teachers' Domain Professional Development courses, visit **www.TeachersDomain.org/courseinfo**

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