

Wave Science — Get ~Wavy~ With Good Vibrations

Students create a model to visualize the invisible waves moving all around us. In this wave of fun activity, students discover how energy waves move in the ocean and how animals utilize them to communicate under the sea.

Grade: Elementary

Standards Supported

Next Generation Science Standards:

- **1-PS4-1.** Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
- **1-PS4-4.** Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.
- **2-P\$1-2.** Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- **3-5-ETS1-3.** Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.
- **4-PS3-2.** Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
- **4-PS3-3.** Ask questions and predict outcomes about the changes in energy that occur when objects collide.
- **4-PS4-1.** Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.
- **4-PS4-3.** Generate and compare multiple solutions that use patterns to transfer information.

Ocean Literacy Principles:

Principle 5. The ocean supports a great diversity of life and ecosystems

