

POP! TEACHER RESOURCE



Lesson Plan



Wave Energy

Lesson Plan for *Waves*

Grade 1

Objective

To help students identify similarities and differences between various kinds of waves.

Things Needed

- *Waves* book
- Access to the “Science Trek: The Science of Sound” video on the “Explore Links” tab of the “Waves” web page on the Pop! website: <https://popbooksonline.com/science-all-around/waves>. You can also find the video here: <https://tpt.pbslearningmedia.org/resource/ba1c1421-6d54-4044-98b7-496f325cccb7/sound/>

Before the Activity

Read *Waves* out loud to the students. Then open the “Waves” web page in your internet browser. Pull up the “Explore Links” tab and click on the “Science Trek: The Science of Sound” link to open the video.

Activity

To start, use the following questions to review the key terms from the *Waves* book:

- What is energy? (Answer: the ability to do work)
- What is a particle? (Answer: a tiny piece of something)
- What is a rest position? (Answer: the natural position of a particle when nothing else affects it)
- What is a wave? (Answer: the movement of energy through a substance, caused by the movement of particles)

Have students turn to Chapter 2 (“Ocean Waves”) and use this chapter to answer the following questions about energy and particles:

- What do ocean waves travel through? (Answer: water)
- What provides the energy that causes ocean waves? (Answer: air)



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- What kind of wind makes bigger waves? (Answer: faster, longer-lasting winds)
- Where does each particle move after a wave passes through it? (Answer: It returns to its rest position.)

Next, explain that all waves happen because of moving particles. But different kinds of waves move different kinds of particles. Show students the first minute of the “Science Trek: The Science of Sound” video. Ask the students the following questions:

- What do sound waves travel through? (Answer: air)
- Are the waves of loud sounds big or small? (Answer: big)
- Are the waves of soft sounds big or small? (Answer: small)

Finally, use the following questions to help students compare the ocean waves and sound waves:

- How are sound waves similar to ocean waves? (Possible Answers: Both waves carry energy. Both waves are created by particles moving and returning to their rest positions.)
- How are sound waves different than ocean waves? (Possible Answers: Ocean waves travel through water, but sound waves travel through air. Sound waves moved by the squeezing and stretching of air, but ocean waves move by water particles being pushed by wind.)

Evaluation

Could students answer the questions about the main ideas from the text and the video?
 Could they describe similarities and differences between the two kinds of waves?

Standards

This lesson plan may be used to address the Common Core State Standards’ reading standards for informational texts, grade 1 (RI 1.6).

