

## Objective

By the end of this lesson, you will be able to describe the features and applications of different forms of waves.

## Materials and Prep

- Pen and paper
- Computer or tablet for research
- No prior knowledge needed

## Activities

- **Research Task:** Use your computer or tablet to research different forms of waves such as sound waves, light waves, and water waves. Take notes on their features and applications.
- **Wave Drawing:** Draw a diagram illustrating the properties of a wave. Label the crest, trough, amplitude, and wavelength. Be creative!
- **Wave Experiment:** Create a simple experiment at home to demonstrate the behavior of waves. You can use a slinky or a container of water for this activity.

## Talking Points

- **What are waves?**  
"Waves are disturbances that carry energy from one place to another without transporting matter."
- **Types of waves:**  
"There are different types of waves such as mechanical waves (like sound waves) and electromagnetic waves (like light waves)."
- **Features of waves:**  
"Waves have properties like amplitude, wavelength, frequency, and speed that determine their characteristics."
- **Applications of waves:**  
"Waves are used in various technologies like communication systems, medical imaging, and even cooking!"
- **Wave behaviors:**  
"Waves can reflect, refract, diffract, and interfere with each other, leading to interesting phenomena in the world around us."