



# Fourth Grade Science

## Waves

Dear Families,

Here is what your child is learning in Fourth Grade, during the study of waves and some specific ways you can help. Look for additional newsletters for upcoming units.

### Waves Unit

#### Students need to:

- Explain how waves transfer energy
- Identify parts of a wave and communicate how force impacts physical waves and sound waves
- Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move

#### Key Vocabulary

**Amplitude:** Height of a wave. It relates to the amount of energy in a wave.

**Crest:** Highest point of a wave

**Energy:** Property that must be transferred to an object to create motion

**Information Transfer:** Process of moving data through waves

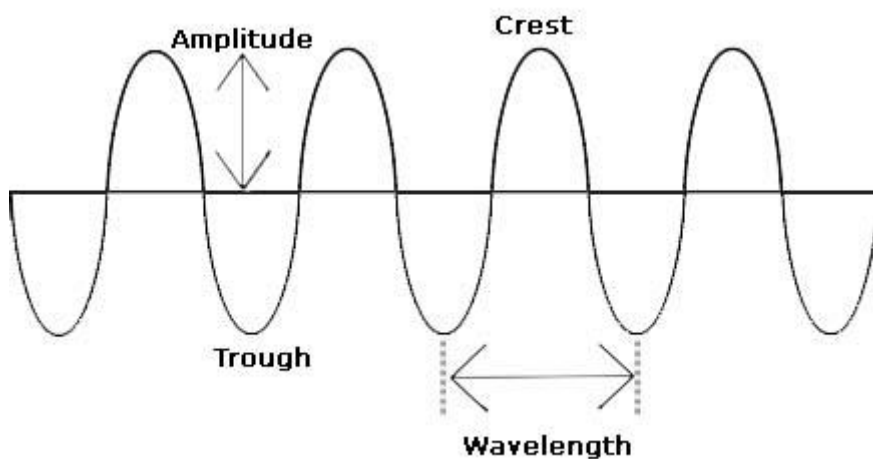
**Pattern:** Something that repeats

**Trough:** Lowest point of a wave

**Wave:** A repeating pattern of motion that transfers energy

**Wavelength:** Spacing between wave peaks (distance between two crests or two troughs)

Diagram of a wave



#### Ways FAMILIES Can Help

- Use materials around your home to make a visual representation of a wave (i.e. shake a towel, slinky, jump rope)
- Create waves in a container of water and discuss ways to change the amplitude of the wave
- Place various floating objects in a container of water. Experiment with making waves and how those waves impact the floating objects
- Design different ways to communicate across the room (i.e. message on a paper airplane, Morse code)
- Discuss why your cell phone receives better service in some locations than in others
- Use the attached links to learn more information and explore