

Waves and Energy

Mini-lab

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It's a beautiful autumn day. You are sitting by a pond in a park. Music from a school marching band is carried to your ears by waves. A fish jumps, making waves that spread past a leaf that fell from a tree, causing the leaf to move. In the following lab, you'll observe how waves carry energy that can cause objects to move.

1. Add water to a large plate to a depth of about 1 cm.
2. Use a dropper to release a single drop of water onto the water's surface. Repeat 5 times. Draw what you observe.
3. Float a cork or straw on the water.
4. When the water is still repeat step 2 at a height of 10 cm, then again from 20 cm. Draw what you observe (2 drawings).
5. *How did the motion of the cork depend on the height of the dropper?*
6. *What was transmitted in the waves?
How do you know this?*