

## **Waterwheel Experiment Instruction Sheet**

### Constructing Your Waterwheel:

1. Hold the two plates together so that the bottoms are back-to-back. Using the point of the scissors, carefully punch a hole in the center of both plates.
2. Take one of the cups. Staple the cup to the inside edge of the plate with the lip facing outward. Repeat with as many cups as are necessary to line the entire edge of the plate.
3. Staple the second plate onto the opposite sides of the cups. Be sure that the holes in the plates are located directly opposite of one another.
4. Push the pencil or dowel through the holes in the center of the plates.

### Using Your Waterwheel:

1. Have one partner hold the dowel or pencil loosely on each side of the waterwheel. Place the waterwheel under the faucet.
2. Have the other partner turn on the faucet. Your wheel should turn!
3. Try turning the faucet up and down. What happens to your waterwheel as the rate of flow changes?

### Harnessing Waterpower:

1. If the faucet is not off, turn it off now.
2. Pierce the round piece of paper with the second pencil. Slide the paper about 1/3 of the way down the pencil.
3. Slide your rubber band onto the other end of the pencil.
4. Loosely hold the pencil at both ends, with the rubber band in the middle.
5. Slide the other end of the rubber band onto the waterwheel's pencil. Have a second person loosely hold both ends of the pencil on the water wheel.
6. Have a third person turn on the water.
7. Watch what the power generated by the water does.