

Turbines

Turbines are often used to produce electricity. Find out how they work!

SUPPLIES AND TOOLS:

- an empty half-gallon milk carton
- a hammer and a nail
- masking tape
- a pitcher of water
- string

DIRECTIONS:

1. With the hammer and nail, punch a hole in the bottom right corner on each side of the milk carton. Also punch a hole in the center of the top ridge of the carton, for hanging.
2. Tape each of the bottom holes with masking tape, and put the string through the top hole.
3. Hang the carton outside, where the ground underneath can get wet (from a tree branch, for example).
4. Open the carton flap and fill the carton with water.
5. Pull the tape off one of the corner holes. What happens?
6. Pull the tape off two opposite corners. What happens?
7. Pull the tape off all corners. What happens?

You've rediscovered Sir Isaac Newton's principle—For every action there is an equal and opposite reaction. When water pours out of the small hole, its force pushes the carton in the opposite direction, causing it to turn. The more holes, the faster the turn.



Note:

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