



FUN FACT #9: Simple Piston Pumps

Target age group

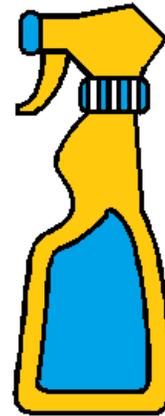
- Activity 1 & 2: Grade 4 – High School
- Activity 2: All grades

Some wildfire terminology

- Reciprocating: move back and forth.
- Piston pump: a pump in which motion and pressure are applied to the water by a piston moving back and forth in a cylinder or tube. It is also known as a reciprocating pump and is commonly used in the home.

Information

- Examples of piston pumps
 - A spray bottle: It has a trigger lever, which activates a small pump. This pump is attached to a plastic tube that draws fluid from the bottom of the reservoir. The pump forces this liquid down a narrow barrel and out a small hole at the gun's muzzle. The hole, or nozzle, serves to focus the flowing liquid so that it forms a concentrated stream.
 - A backpack pump: It straps on your back like a backpack and hold 5 gallons of water. To use it you must hold the cylinder (trumpet) and work it back and forth to draw water from the can and out through the nozzle tip. You must aim at the flame base to put out the fire.



Activity 1: Other examples of piston pumps

- Name two other examples of piston pumps.

Activity 2: Water gun

- Is a water gun an example of a piston pump?

Activity 3: Using a simple piston pump

- You will need an empty spray bottle for each person (be sure all old contents have been cleaned out) and a target (a picture of a fire is ideal).
- Fill both spray bottle with water.
- Set up your target (each person should have their own target).
- Draw a line on the ground and stand behind it.
- Aim at the fire...did you put it out?



- To make this more fun:
 - do this with a friend;
 - draw your own target;
 - the person who put out the fire first or who hit the fire the most times out of 10 wins;
 - make different targets;
 - try to knock empty cans off a ledge...how is your aim?