

Squirting Water Holes

Action

Holes in a tin can will demonstrate the range at which the liquid will be projected.

Grade Level

Grade 7 - Force and Motion

Grade 9 - Fluids and Pressure

Materials

- A large tin can or milk carton
- A medium sized nail
- A hammer
- A bucket or sink

Instructions

- Punch 4 holes of the same size and shape in the side of the can. The holes must be in a vertical line, each being about 3 cm from the next and starting about 3 cm from the bottom of the can.
- Hold the can over the sink and cover the holes with your fingers. Fill the can full of water.
- Ask students to predict from which hole the water will squirt the furthest. Holding the can with the other hand, remove your fingers from the holes and observe the results.

Safety

Use caution when punching the holes in the can so that the nail does not slip and cut you. Also be careful not to cut your hand on sharp edge of the can.

Hints

- Try filling the can with water before hand to make sure that the holes are punched completely through.
- If the water is not "squirting" out, but just drizzling down the side of the can, try to push the dents out that were caused from punching the holes in the can.

Science Principle

The top hole in the can will give the shortest squirt and the lowest hole will give the farthest squirt. This shows that the height and level of water influence the squirt distance. If the size of the holes is varied and all the holes are at the same height.