

30. Young Scientist

A Fountain at your Fingertip

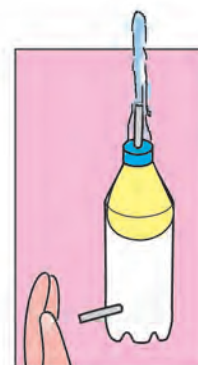


What you need:

Plastic bottle, balloon, pieces of stiff plastic tubes (You may use pieces of straws or used refills), scissors, glue or adhesive tape, etc.

What you do:

1. Make a small hole in the lid of the bottle and insert a small plastic tube/straw through the hole. Secure the tube with the help of glue or adhesive tape.
2. Make a small hole in the side of the bottle, near its bottom. Insert another piece of straw/tube in the hole and secure it with the help of glue or adhesive tape.
3. Now, place a balloon in the bottle and fit its mouth on the rim of the bottle as shown.
4. Now, suck through the hole in the side of the bottle. What do you see? Yes ! The balloon gets inflated inside the bottle.
5. Now, cover the hole in the side with a finger and –
 - (a) Pour water into the balloon.
 - (b) Put the lid with the straw on the bottle and screw it on tight.
6. Now, remove your finger from the side hole. What do you see?
A fountain leaping out of the straw in the lid!
7. Note how long your fountain lasts.



A Shower at your Fingertip

What you need:

A can with a wide base and a tight lid, a nail, a hammer.

What you do:

1. Make a hole in the base of the can, using the nail and the hammer. Take care not to hurt your fingers.
2. Make a number of tiny holes in the lid of the can, as shown. See that your holes are evenly spaced, as in a sieve.
3. Now, cover the hole in the base with your finger and fill the can with water.
4. Put the lid (with the holes) on the can.
5. Invert the can, still holding the finger on the hole.
6. Hold the can over a plant and remove your finger from the hole. What do you see?

The plant gets a shower.

7. Now, put your finger on the hole again. What happens?
The shower stops.

Use this home-made ‘watering can’ to water tiny plants.

Can you think of any variations or modifications or improvements in these toy fountains? Try them out and write your observations.

You know that there is air all around us, though we cannot see it or feel it or smell it all the time. In both these ‘fountains’, it is this invisible air that pushes the water/the balloon. You will learn more about this when you study science in higher classes.

For the Teacher : Give a demonstration of making these toys in the classroom. Involve the children in the process by asking questions. Then let the children prepare the toys in the classroom itself, either in groups or individually depending on the available resources. Get them to talk about these toys. Encourage them to find and make other simple toys – many ‘Toys from Trash’ can be found on the site created by Mr Arvind Gupta. (www.arvindguptatoys.com)

