

Family Science Activity – Friday 24th April - STATIC MAGIC

The activity: Make objects move without touching them by charging them with static electricity. **Experiment:** with different objects to see how static electricity affects them. Learn about charged particles like electrons and how things gain or lose charge.

<https://www.rigb.org/families/experimental/static-magic> - for a video clip about the experiment and a full version of the activity information sheet.

What you will need:

- A balloon
- A cotton towel or T-shirt or a woolly jumper
- Some scrap paper
- A paper/plastic drinking straw (optional)
- An empty 500ml plastic drinks bottle (optional)
- A hard plastic comb or ruler (optional)
- Other household objects to test.

What to do:

- Charge up a balloon and try picking up scraps of paper with it.
- Investigate whether the amount you rub the balloon affects how much paper it can pick up.
- Investigate whether the size of the scraps of paper makes a difference.
- Find out how close you have to be to the paper before the balloon makes it move.
- Try bending a stream of water like Hector does in the video.
- Try balancing a straw on top of a bottle lid and seeing if you can make it spin like in the video.
- Find out which objects are attracted to the charged up balloon and which are repelled by it.
- Try holding a charged balloon near your hair or your skin.

Going Further:

Try rolling an empty soft drink can along the ground using a charged up balloon <http://bit.ly/StaticCanRoll>

Try lighting up a fluorescent lightbulb with a charged up balloon – as described here: <http://bit.ly/LightBulbBalloon>

Try tying two balloons to strings and seeing if you can charge them up with static electricity then hang them up so they repel each other.

Read more about static electricity [http://bit.ly/ MoreStaticScience](http://bit.ly/MoreStaticScience)

HAVE FUN!