

Resisting Balloons



YOU WILL NEED:

- Tape
- Scissors
- Door Frame
- Two Balloons
- String/Thread
- A Woollen Sweater/Jumper

WHAT TO DO:

1. Cut two equal lengths of thread/string and tape them to the top of a door frame in the middle about 1 inch or 2.5 cm apart.
2. Blow up the balloons and tie each end so that the air does not escape.
3. Tie each of the blown up balloons to the end of each thread/string so that they are hanging at the same height and are resting next to each other.
4. Rub each of the balloons with the woolly jumper/sweater to charge them (one at a time).

What happens when you let them go? How do they react to each other?

HOW DOES IT WORK?

Both of the balloons have become negatively charged with static electricity .Once they have been rubbed with the woollen jumper/sweater they will push each other away.

Items that are made up of the same material will always take on the same charge. If you have a matching charge of static electricity in like items, they will repel each other just like the same poles of magnets will repel each other.

‘Attract’ and ‘Repel’ are key words in magnetism. Do you know what they both mean now?

MAKE IT AN EXPERIMENT

The project above is a DEMONSTRATION. To make it a true experiment, you can try to answer this question:

1. Do different shaped balloons work in the same way?
2. How many rubs on the jumper or sweater are needed to make the experiment work?
3. Do jumpers made from other materials produce static electricity?
4. Does rubbing the balloon more, make the balloons repel each other more?