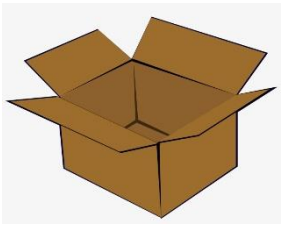
Science Activity

Build a boat

Time to prepare: 5 – 10 minutes



Please, stay safe and ask a grown up to supervise you

Resources/ things you need

- A bucket
- Water
- A variety of materials e.g. cardboard, paper, tinfoil, cling film, plastic packaging, egg boxes, plastic/ paper straws etc.
- A small toy e.g. Lego man
- Glue/ tape/ string

What to do

1. Gather a variety of objects from around your house/ garden. (Make sure you can name all the materials that the objects are made from!)
2. Test your materials in a bucket of water to see if they float or sink. Why do you think they do this? **Be careful if you are doing this inside!**
3. Now your challenge is to use what you have found out about floating and sinking to build a boat for a small toy (e.g. a Lego man) that will float on top of the water and also support the weight of the toy.
4. Decide on your materials, design your boat and get building! (See pictures below for ideas)
5. Test your boat and watch as (hopefully!) your toy sails away across the water!

Background and the link to learning

This experiment tests the properties of different materials. To be successful you will have to know about whether each material sinks or floats and how strong it is.

Whether an object sinks or floats depends on how dense it is. (If something is dense it means that all the tiny molecules that make it up are packed tightly together which makes it heavy for its size) If the objects is less dense than the water, it will float, if it is denser than the water, it will sink.

Pictures

Link to other similar activities – Please see spaghetti towers and materials treasure hunt.