

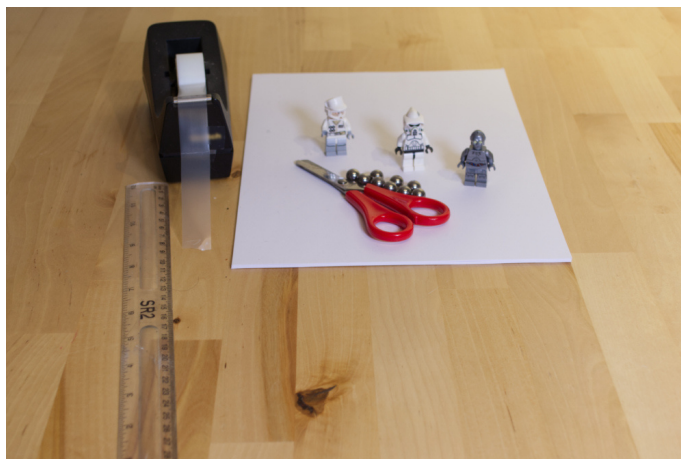
Build and Float a Cable Ship

What is this activity about?

To think about floating and sinking and try our challenge

What you need:

- an A4 sheet of paper
- scissors
- 10 cm of sellotape
- a ruler
- something to keep afloat (we tried with some minifigures and some ball bearings)



How is it linked to PK Porthcurno?

Just like in the days of the electric telegraph, most of our international telecommunications travel through undersea cables. Well-designed ships are important for laying and repairing cables



Ships are made of steel, which sinks in water. They float, and can carry heavy loads, because their shape means they are mostly air on the inside. We call this idea buoyancy. Buoyancy was first explained over 2000 years ago by Archimedes. You can learn about Archimedes and buoyancy at <https://easyscienceforkids.com/best-archimedes-principle-video-for-kids/>

Your Challenge

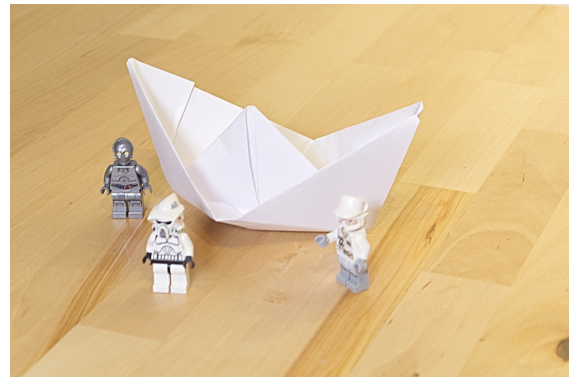
- Get as much as you can to float on water, using only one sheet of A4 paper and 10cm of Sellotape to build your ship.
- Investigate:

What's the best shape for your ship?

Does it tip over too easily? How can you prevent this?

Is there enough room to carry a lot? Could you improve this?

Who in your home built the most successful ship?



Some rules

Stick to the limit of 10 cm of Sellotape. We have this rule because when we first tried this, someone used a whole roll of tape trying to waterproof their paper!

Float your ship before putting in the contents. We have this rule because one summer some grown ups discovered they could float over 200 marbles with one sheet of paper by loading it up before putting it in the water. They floated a heavy load, but real cable ships don't get lifted out of the water for loading.

Did you know?

One of the first cable laying ships was first built as a passenger liner. I. K. Brunel's SS Great Eastern was the largest passenger ship in the world when she was built in 1858 and could carry 4000 passengers. After the first unsuccessful attempt to lay a cable across the Atlantic using two ships, the Great Eastern was converted to a cable laying ship, and finished laying the first long-lasting transatlantic cable in 1866.

There have been four cable ships called Iris. You can see their stories on our YouTube channel here: https://www.youtube.com/watch?v=3d5WvAH3f_w



We're pretty sure it would be easier to do the repair by hauling the cable up on to the deck



The Great Eastern at work.

Connect with us

Decorate the model ships you make, or video them floating, and share on our social media channels- we'd love to see them!

   PKPorthcurno

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