SCIENCE WEEK

Diverse places

Don't tip the ship!

About this activity

Cargo ships have been around for thousands of years, transporting goods around the world. The *Cutty Sark* was built in 1869 to bring tea from China to London. In this activity, you will build boats and investigate how much weight can be added to the boats before they sink.

Kit list

- 1cm² paper
- Ice cream tub, or any tub or tank
- Small weights or coins
- Sellotape
- Scissors
- Cloth to mop up spills quickly
- Optional extra materials for boat building e.g. foam, foil, plasticine

Time: 1 hour

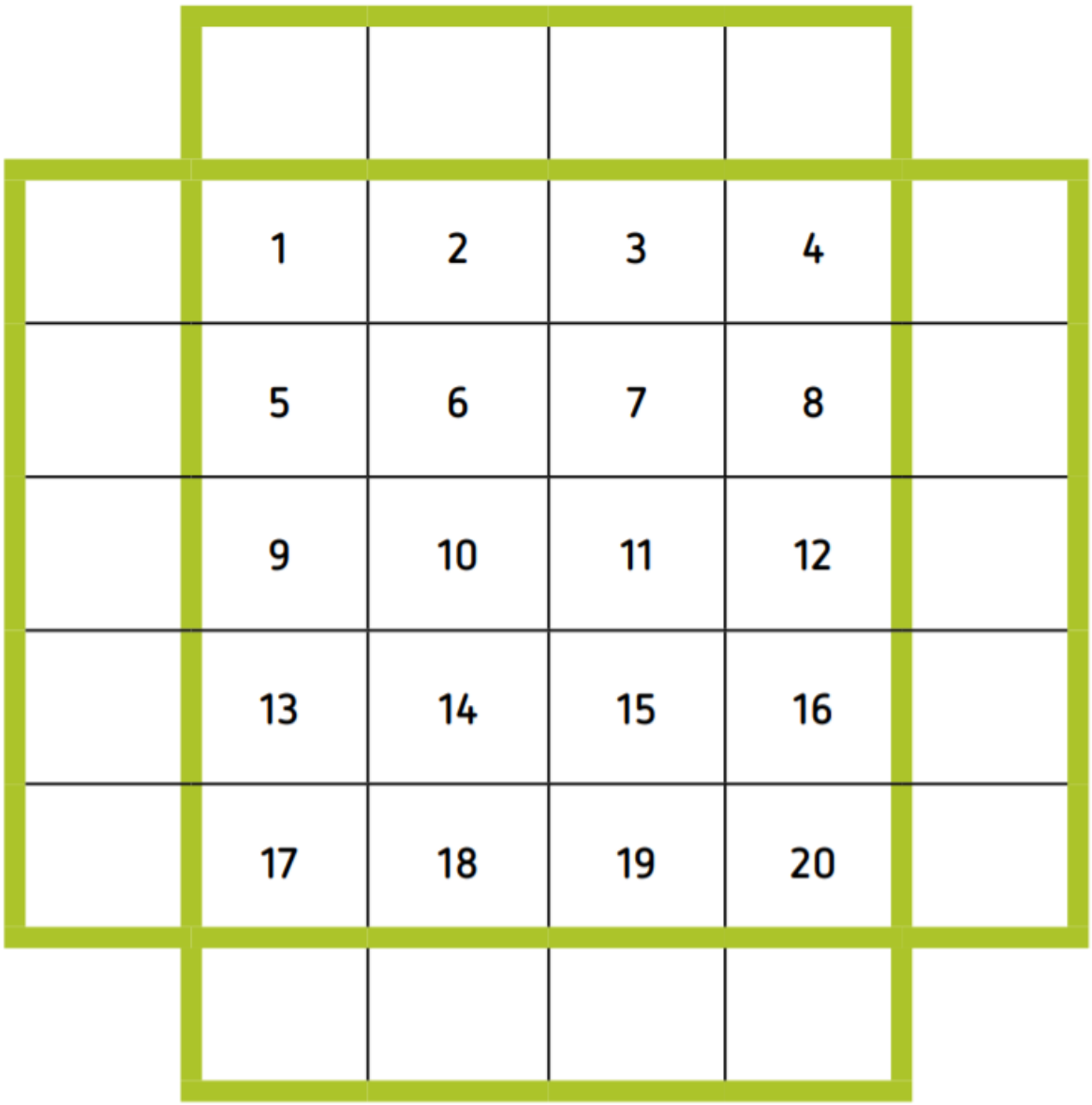
Instructions

1. Fill a tub or tank with water. Place it on a mat or tray so your surfaces don't get slippery with spilled water.
2. Take a piece of squared paper. Create a rectangle of 6 x 7 squares. Cut this out as shown on the next page.
3. Fold up the four sides (shown in green). Tape the corners together to make it watertight.
4. Count the number of squares in the base of the boat.
5. Gently place the boat in the tub of water - it will float!
6. Add weights one after the other until the boat sinks. For best results, place the weights equally and in a balanced way around the boat. On a real ship the weight is carefully spread across it to prevent it from tipping.
7. Repeat the experiment and compare your results with other groups.
8. Now try different designs. Does the size or shape of the boat change how many weights it can hold? The only limit is the size of the tub!
9. Discuss your results as a class.

Next steps

Why not use different materials to make and test your boats?

Find out more about the *Cutty Sark* and how to visit at rmg.co.uk/cuttysark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