

Shipwrecks: a lateral thinking problem

This resource accompanies the article **Raising expectations** in *Education in Chemistry* which can be viewed at: <https://rsc.li/3BmydTJ>

Technician notes

The actual requirements depend on the plans written by the learners.

If the class is going to carry out its plans it is a good idea to make it clear to the teacher which pieces of glassware you are happy to leave nails in to rust. There is advice about rust stain removal in [CLEAPPS Bulletins 103 and 108](#).

The practical may need to be left for some time (a week or more) so you will need to advise the teacher which equipment will need to be returned if it needs to be used again during that time and agree a suitable place where the experiment can be stored between lessons.

Apparatus

- Test tubes
- Thermometers
- An electronic balance
- Water pumps
- Apparatus to draw air through the mixture in a boiling tube
- A kettle

Materials

- Nails
- Salt
- Distilled water
- Cooking oil
- Emery paper
- Filter paper