

## Corrosion and Rusting

To begin with, pupils can be shown pictures to demonstrate corrosion and rusting. This can stimulate a discussion on what these phenomena are and how they relate to shipwrecks. You can talk about which parts of a ship would probably survive the longest if a modern ship sank, and what would corrode the fastest.

Pupils are given three nails and three small jars. They are asked to place the nails in jars of varying salinity (to represent sea water), and to write brief observations each day of what is happening to the nails in each jar. The experiment should be written up, using tables, drawings, written descriptions, and charts. Pupils are asked to choose the unit of measurement they prefer to quantify the level of corrosion on the nails through time. Some students might be able to use percentages to complete the activity. After two weeks of observation, pupils are asked to reflect on what they have found from their experiment in a written summary. They can also use their notes and report to present their results to their classmates.

Different (groups of) students can be asked to add different amounts of salt to their three jars to make the activity more interesting. The importance of recording exactly how much salt they used in each jar for the success of the recording process should be outlined.

The activity can be expanded by placing different types of materials (e.g. leather, textiles, pottery, ...) in the water to observe what happens to them and how they are affected by different types of salinity. Materials like these can be found on shipwrecks as part of the cargo or as part of the possessions of the crew and passengers.

Pupils should always wear gloves while conducting this experiment and handling the corroded nails.