



Chapter 1.2: Rusting

What is rust?

- ▶ Require both air AND water.
- ▶ Orange/brown substance.
- ▶ Rust is 'Iron Oxide'
- ▶ Iron + Oxygen → Iron Oxide

Investigating Conditions of Rusting

- ▶ Prepare the test tubes with the nail in the 6 conditions as instructed on the pack
- ▶ Predict the results; whether it will
 - ▶ Rust a bit
 - ▶ Rust a lot
 - ▶ Does not rust
- ▶ Leave in the lab for two weeks and check the results



Prevention

- ▶ Cover in oil
- ▶ Paint
- ▶ Galvanise – coat with Zinc
- ▶ Stainless steel – mixture of Fe and C and Chromium (Cr)

What is Rust?

Cars are made from steel. Steel is mostly made from the element _____. The problem with iron is that it _____. If the paint chips off a car, the iron underneath starts to go rusty. Rust can even _____ under paint. Rusty iron is ___ in colour. Iron loses its _____ as it goes rusty. This is why rusty cars become ___ to drive and end up in a scrap yard.

**Rusts, Green, Strength, Iron,
Unsafe, Spread, Brown, Safe,
Copper.**

Rusting

- ▶ Describe what rusting is and what conditions are needed for rusting of iron.
- ▶ How you can prevent rusting?
- ▶ Is rusting a physical or chemical change. Explain your answer.