Material World

Lesson 1:
Introduction to the Material World
The story of a steel can (part 1)

Steel is made from **iron ore**. This is mined using enormous drills and sometimes dynamite!

2 billion tonnes of iron ore are mined each year around the world. Most of this comes from China.

The iron ore is crushed and **transported** to a smelting works using trucks or trains.

The ore is mixed with limestone and coke and heated to 1,600°C in a **blast furnace** – this is called smelting.
Oxygen is blown into the molten iron to remove carbon (which has come from the coke.) This produces steel.

The steel is rolled out into thin sheets, ready to be transported to the next factory.

The steel sheets are manufactured into many different objects such as car parts, fridges, cutlery or baked bean cans!

1,665 million tonnes of steel were produced worldwide in 2014.
Where does our waste go?

- Energy from Waste plant
- Landfill site
Manufacturing paper

Reducing paper
Manufacturing plastic

Reusing plastic
Manufacturing aluminium recycling.