



# EMPIRIBOX

## Primary School Science

Empiribox is focusing on the environment and how to protect it. Part of this is recycling materials, but how do we do this?

In this investigation, your class will find out which materials are magnetic and which ones are not and try to come up with a way that they can apply this knowledge into the real world.

Spectacular Science

Separating Materials

### Which materials stick to the magnet, and which do not?

**Task:** Find out which materials are magnetic

**Method:** Use a magnet to test different materials and see which one is attracted to the magnet

### What you will need

Magnets

Different Types of Materials

### Instructions

In pairs or groups, lay all your chosen materials in front of the children. Ask them to hold the magnet above each item and record if it is attracted to the magnet by coming towards it and staying attached, or if it is not attracted to the magnet by not moving.

Fill in the table below with your findings

Stick to a magnet	Is not attracted to magnet	Is attracted to magnet
Drinks can		
Chair leg		
Door handle		
Rubber		
School jumper		
Pencil		
Etc...		

### Top Tip

Some drinks cans are steel, and some are aluminium. See if you can find a mixture of the two and ask children to explain why they know they are made from different materials.

### Class Discussion

When we recycle things at home or in school, we don't sort them by if they are magnet or not. However, when they get to the recycling centre, some materials will need to be sorted by if they are magnetic.

### Key Stage 1 and Lower Key Stage 2

Can you discuss a way in which a recycling centre would be able to use magnets to sort materials?

### Upper Key Stage 2

Can you design a machine that could be used in a recycling centre to sort materials?