

# Mighty Metals



These activities are for you to do at home with an adult. You can do all of them or choose the ones that you find most interesting.

## Activities

1. Use information books and the internet to find out about contact and non-contact forces, including friction, gravity and magnetism. Create an information poster to report your findings. Include a title, headings, facts and pictures.
2. Watch videos or read information books to find out about friction in everyday life. Write a definition of what friction is, then create a table to describe occasions when friction is helpful and unhelpful.
3. Air resistance is a type of friction between air and another material. Use your research skills to learn about air resistance. Afterwards, look at the pictures and write sentences to explain the effect that air resistance will have on each object. Does the shape of the object matter for air resistance?



bird



parachute



aeroplane



racing car

4. Galileo Galilei was a famous 16th century scientist who carried out experiments to learn about forces. Use the internet or information books to find out about Galileo's law of free fall, then write a short descriptive report. You might like to learn more about other scientific discoveries that he made.
5. Create a piece of art using aluminium foil. You can find many examples on the internet by typing key terms, such as 'aluminium foil art ideas', into the search bar.



6. Gravity is a force that pulls things to the ground. The scientist, Sir Isaac Newton, first described gravity. Use a range of sources to find out more about gravity and the life and discoveries of Sir Isaac Newton. Afterwards, write a non-chronological report about Sir Isaac Newton and how he discovered gravity, as well as what gravity is and does. Include a title, headings, facts and pictures.
7. Use information books and the internet to learn more about magnets and magnetism. Write down any interesting facts that you discover. Afterwards, use your facts to create a quiz about magnets and magnetism. See if a family member or friend can complete your quiz. Mark the quiz and share your knowledge, giving the answers to any questions that they answered incorrectly.
8. Use your research skills to find out about levers and how they work. Can you find out what the terms fulcrum, load and effort mean, and what these words have to do with levers? Find or draw pictures to show everyday items that are examples of levers. Label the fulcrum and load and draw arrows to show where a person applies effort to work the lever.
9. Use a range of sources to find out about different metals, their properties and uses. Use your research to answer the questions: What are metals? Where are they found? What is metallurgy? What does the process of extracting metals involve? Why are metals useful materials? Afterwards, complete a table for three metals of your choice. Include the metal's name, picture, properties and uses.
10. Finish your home learning by writing some sentences or explaining to an adult what you have learned about forces, famous scientists, levers and metals.



## Useful websites

BBC Bitesize – Forces and Motion – KS2 Science

DKfindout! – What is friction?

BBC Bitesize – What are water and air resistance?

Britannica Kids – Galileo – Homework Help

Britannica Kids – Isaac Newton – Homework Help

DKfindout! – How do magnets work?

DKfindout! – What is a lever?

DKfindout! – Uses of metals

Britannica Kids – Metal – Homework Help

## Good reads

Title	Author	ISBN
Moving up with Science: Forces and Magnets	Peter Riley	9781445135250
Science Superstars: Galileo	Nancy Dickmann	9781474758826
Science Superstars: Sir Isaac Newton	Angela Royston	9781474758871
Everyday Materials: Metal	Harriet Brundle	9781789980783

