

## English

This half-term, the children will be reading the book *The Iron Man* by Ted Hughes. The book tells the story of a mysterious iron giant whose destructive quest for food alarms the local farming community. The story is told through the eyes of a young boy, Hogarth, who forms a friendship with the Iron Man. In time the Iron Man turns from villain to hero as the world faces a bigger threat.

Whilst studying the book, the children will learn:

- \* To enjoy a story and discuss its meanings
- \* To explore narrative plots, settings, characters and draw inferences to aid understanding
- \* To broaden understanding of writers' use of language and build a varied vocabulary
- \* To write non-fiction texts based on fictional experiences
- \* To write newspaper reports based on the narrative.

## ART:

Children will:

- research robots and use materials to design their very own robot made from recycled materials annotating to show how materials are attached.
- Build their robot using a variety of materials.
- Learn about some of the great artists in history and describe their work.
- use a range of tools to create embossed patterns using foil.
- To design and make a magnetic travel game.
- Children will make their own wind chime.

# Mighty Metals



You're an engineer, a scientist, a maker of men (iron men, of course). Explore the scientific world of forces and magnetism, metals and materials. Expand your mind as you test and trial, build and move. Which force is at play as you slide down a slide or swing on a swing? Can you explain why magnets repel and attract? Can you make a penny look shiny and new or build a steel band from pots and pans?

## **PE**

This half-term, we will be focussing on gymnastics and developing our skills by learning a variety of balances, rolls and jumps. These include the pike, straddle, teddy bear roll, log roll, egg roll, over the shoulder roll and jumps from height. In addition, they will also be formulating different sequences in small groups.

## Maths

The concepts to be covered this half-term include:

- \* measuring mass using scales, the different units to measure mass, specifically grams and kilograms.
- \* reading weighing scales that have different values for each marking
- \* solving word problems and more practise with bar modelling
- \* measuring volume using millilitres and litres
- \* Solving various problem-solving questions on volume and capacity
- \* consolidating previous learning on recognising different denominations (both notes and coins) for money
- \* simple addition and subtraction of money building on to solving word problems using bar modelling.

## Science:

Children will learn:

- that some forces need contact between 2 objects, but magnetic forces can act at a distance.
- how magnets attract or repel each other and attract some materials and not others.
- about different everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- How to describe magnets as having 2 poles.
- To predict whether two magnets will attract or repel each other, depending on which poles are facing.
- To use their scientific enquiry skills.

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.

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.

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

# Home Learning

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?

## 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

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.