Year 8 Forces, Magnets and Moments Task Sheet

Write a step by step instruction list to tell someone how to make a simple electromagnet. Say what it can be used for.

Make a list of at least 10 things we use magnets for.

Write a song or poem about forces, pressure, magnets and moments.

Find (or draw) a picture of a racing car. Label and explain the features it has that allow it to travel at such high speeds.

Make a crossword (with clues) about forces, pressure, magnets and moments.

Create a 10 question quiz (with separate answer sheet) about this topic.

Create a 3D model or produce a piece of artwork about the 'Forces, Magnets and Moments' topic.

Describe and explain 4 situations where we use high or low pressure to help us do something.

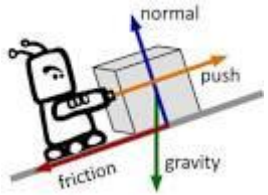
Make a stop-motion animated film or computer animation (or cartoon strip) to show what happens to the speed of a skydiver when they jump from a plane until they safely reach the ground. Explain why this happens in terms of forces that are acting.

Research project: submarines. Find out about the challenges that a submarine designer has to face when designing a submarine. How do they overcome these challenges? How do modern submarines compare to early submarines? You could present this as a documentary style video or as a detailed written project/PowerPoint.

Instructions

Complete the tasks, the more starts the task has the trickier it is. You can complete written work in the form of a booklet, leaflet or a poster. Models can be made from craft materials or even from cake!

Good luck with the work!



Resources:

Use KS3 Bitesize, KS3 Revision Guides, text books, internet searches and your own imagination.

Progress Targets:

Complete these targets in your exercise book as you make progress through the topic. Highlight these amongst your class work. They will demonstrate the progress you are making in the topic!

Stage 1

- Can explain the idea of drag and its effect
- Can describe what pressure is
- Know the effect of a magnetic field
- Can describe the construction of an electromagnet
- Can identify a lever in use

Stage 2

- Can explain how streamlining can reduce the effects of drag
- Can relate pressure to force and area
- Can identify a magnetic field pattern
- Can describe factors affecting strength of an electromagnet
- Can explain how levers can be used to multiply a force

Stage 3

- Can explain the effect of balanced forces
- Can explain real life applications of pressure
- Can describe attraction and repulsion in terms of magnetic poles
- Can explain the function of levers in use