Term: Autumn 2 Year Group 4

Learning Challenge Question: **Why does the seesaw go up and down?**

WOW – Visit the local park and take photographs of forces

Week 1: What make an object move?

WOW – Trip to the park thinking about different forces in action.

SCIENCE LI: I can sort different forces.

Identifying and Classifying

Week 2: **Why does objects fall to the ground?**

COMPUTING LI: I can use the internet to research Isaac Newton

Research

SCIENCE LI: I know what gravity is.

SCIENCE LI: I know how gravity acts on an object.

Weeks 3 and 4: Is it magnetic?

SCIENCE LI: I know how magnetism work on an object.

SCIENCE LI: I can design a fair test.

SCIENCE LI: I can conduct a fair test.

Fair test

SCIENCE LI: I can look for patterns in my results.

Pattern seeking

Weeks 5 and 6: Can I make it move?

DESIGN TECHNOLOGY LI: I know how levers work.

DESIGN TECHNOLOGY LI: I can design a moving puppet using levers.

DESIGN TECHNOLOGY LI: I can create a moving puppet using levers.

DESIGN TECHNOLOGY LI: I can evaluate my moving puppet.

Week 7: Can we code?

COMPUTING LI: I can follow instructions to create a model.

Week 8: What have I learned?

Double page spreads.

English Text: Articus and the Ancient Greeks

RE –Why do some people think life is like a journey?

MFL – Classroom objects

Driver: Science	**Identifiying and Classifying**	**Pattern Seeking**
	Fair Testing	**Research**

LKS2 Forces and Magnets

- compare how things move on different surfaces
- notice that some forces need contact between two objects, but magnetic forces can act at a distance
- observe how magnets attract or repel each other and attract some materials and not others
- compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
  describe magnets as having two poles predict whether two magnets will attract or repel each other, depending on which poles are facing.

LKS2

- I can raise my own and other relevant questions about world around me.
- I can begin to make my own decisions about the most appropriate types of scientific enquiry.
- I can set up simple fair test.
- I can look for patterns and relationships.
- I can collect and record data from my own observations and measurements.
- I can present data in tables and bar charts.
- I can draw simple conclusions and answer questions.
- I can use relevant simple scientific language to discuss ideas and communicate findings.
  I can identify new questions arising from collected data.

Vocabulary

LKS2

compare
surface
force
magnetic
attract
repel
magnetic materials

Design and Technology

- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- apply their understanding of computing to program, monitor and control their products.

LKS2

- I can generate ideas for an item, considering its purpose and the users.
- I can make labelled drawings from different views showing specific features.
- I can develop a clear idea of what has to be done.
- I can plan how to use materials, equipment and processes.
- I can identify criteria that can be used for my own designs.
- I can select appropriate tools and techniques for making my product.
- I can measure, mark out, cut and shape arrange of materials, using appropriate tools, equipment and techniques.
- I can evaluate my work both during and at the end of the assignment.
- I can evaluate products carrying out appropriate tests.

Homework: Forces in everyday life.