

Forces

Innovation

Prior Learning:

Year 4 – Links to the states of matter and the changes that occur.

Year 3 – Compare how different objects move on various surfaces, exploring magnetic forces.

Year 2 – Comparing and contrasting the variety of everyday materials.

Year 1 – Distinguish between an object and the material it is made from, what are the different properties?

Reception – Using a range of different objects made from different materials.

Future Learning:

Year 6 – Constructing figures and models using different materials that are suitable for different purposes.



My Component Knowledge:

Lesson 1: I can identify balanced and unbalanced forces.

Lesson 2: I can describe the effectiveness of air resistance.

Lesson 3: I can investigate how levers and pulleys work in correlation.

Lesson 4: I can explore gears and their combinations.

Lesson 5: I can investigate the effect of ground friction.

Lesson 6: I can describe the importance of buoyancy.

My Composite Knowledge:

I can describe and experiment different forces, by recognising the effects they have on various objects. I can differentiate between materials and their use.

My Powerful Knowledge:

I can theorise how scientists developed a theory of gravitation. Detailing how different forces are used in our everyday lives.



Key Vocabulary

Tier 1: push, pull, gravity, weight, mass, resistance.

Tier 2: force, air resistance, friction, Isaac Newton, buoyancy

Tier 3: Newtons, Galileo Galilei, streamline, gravitational pull.



Who is Isaac Newton?

What are different forces?

How does a boat stay afloat?