

## What I need to know: Y5 Science – Forces

*We nurture the curiosity to learn, the courage to lead and the compassion to care.*

Name:

Class:

For this half term we are learning about different forces, what effects forces have on us and the world around us, and we can recognize, change and measure forces.

What I will know...	✓	Start	End
How to explain the force of Gravity and how it affects everything on Earth.		<input type="radio"/>	<input type="radio"/>
How gravity relates to Sir Isaac Newton's Laws of Motion.		<input type="radio"/>	<input type="radio"/>
What Newton's Law of Inertia is.		<input type="radio"/>	<input type="radio"/>
That for every action, there is an opposite and equal reaction.		<input type="radio"/>	<input type="radio"/>
How to conduct an investigation to measure gravitational forces on objects.		<input type="radio"/>	<input type="radio"/>
How to explain the force of friction and how friction differs on different surfaces.		<input type="radio"/>	<input type="radio"/>
How friction can affect the speed at which something travels.		<input type="radio"/>	<input type="radio"/>
How to conduct an investigation to measure the effects of friction on moving objects.		<input type="radio"/>	<input type="radio"/>
How to explain the term air resistance and how it affects objects.		<input type="radio"/>	<input type="radio"/>
How to conduct investigations to test the effects of air resistance on objects.		<input type="radio"/>	<input type="radio"/>
What is meant by water resistance and how this force can affect objects.		<input type="radio"/>	<input type="radio"/>
How to conduct an investigation into water resistance using a range of items moving through water and other types of liquids.		<input type="radio"/>	<input type="radio"/>

Skills I may use...	
<b>Remember:</b> name, identify, describe	<b>Analyse:</b> investigate, infer, select, clarify
<b>Understand:</b> predict, recall, interpret	<b>Create:</b> plan, design, construct
<b>Apply:</b> use, show, relate, demonstrate	<b>Evaluate:</b> compare, assess, judge

Vocabulary I need to know...		
1. I have heard the word, but I don't know what it means	2. I understand what the word means	3. I can explain what the word means and give other examples
Gravity, force, action, reaction, mass, weight, Laws of Motion, Inertia, friction, speed, air resistance, Sir Isaac Newton, Galileo, water resistance, up-thrust, liquids, density, materials, investigation, comparison, objects, measurements, conclusion.		

Opportunities to support English and maths
<ul style="list-style-type: none"> <li>Using mathematical tables and graphs to record and interpret the results of investigations.</li> <li>Literacy – further research on the theories of Sir Isaac Newton and Galileo to enhance understanding.</li> </ul>

Enrichment
<ul style="list-style-type: none"> <li>British Science Week (10-19<sup>th</sup> March 2023)</li> </ul>

**Respect**

**Responsibility**

**Reflection**

**Resilience**