

Topics in this cycle: Forces	Taught: Summer 1	Year Group: 7
Key knowledge/concepts to be learnt ('Tell me about....')		Websites/blogs/YouTube links and further reading to deepen and consolidate learning
<ul style="list-style-type: none"> What is friction and drag? Sketch the forces acting on objects when there are contact forces acting. Describe what happens to a moving object when the resultant force acting on it is zero. Describe the factors that affect the size of the drag forces and friction, and how friction and drag can be reduced. What are the effects on objects that are squashed and squeezed? Describe how forces deform objects. Explain how solid surfaces provide a support force. Use Hooke's law. Explain what 'linear relationship' means. What are turning forces? Describe what is meant by a moment. Calculate the moment of a force. 		<p>Notes:</p> <p>What are forces? Introduction to forces - Forces and movement - KS3 Physics - BBC Bitesize - BBC Bitesize</p> <p>Forces and movement Forces and movement - KS3 Physics - BBC Bitesize</p> <p>Notes/Videos/definitions KS3 Forces and Pressure – Animated Science</p> <p>Videos:</p> <p>BBC Bitesize forces video BBC bitesize forces - KS3 - YouTube</p> <p>Forces and motion 13. BBC Bitesize KS3 Revision Forces and Motion BBC18LS13 - YouTube</p> <p>Drag forces Gravity and air resistance Physics - Bitesize Science - YouTube</p>

Home-School Learning Collaboration – KS3 Science

Key Vocabulary and Definitions To Be Learnt		What Will The Assessment Look Like?
Friction	Forces opposing motion which is caused by the interaction of surfaces moving over one another. It is called 'drag' if one is a fluid.	Extended writing –Compare drag forces (friction and air resistance) for a car that accelerates then brakes. End of Unit test: 25 minutes/25 marks <ul style="list-style-type: none"> • Short answer questions • Extended writing • 3 marks for SPAG
Contact force	A force that acts when an object is in contact with a surface, air, or water.	
Drag force	The force acting on an object moving through air or water that causes it to slow down.	
Water resistance	The force on an object moving through water that causes it to slow down, also known as drag.	
Air resistance	The force on an object moving through air that causes it to slow down, also known as drag.	
Resultant force	Single force which can replace all the forces acting on an object and have the same effect.	Family Learning Opportunities Forces STEM How to make a volcano Natural History Museum (nhm.ac.uk) STEM Geological Society - The Rock Cycle (KS3) (geolsoc.org.uk) Forces and motion home experiments IOPspark Force IOPspark
Equilibrium	State of an object when opposing forces are balanced.	
Streamlined	Shaped to reduce resistance to motion from air or water.	
Lubrication	A substance that reduces friction between surfaces when they rub together.	
Deformation	Changing shape due to a force.	
Compression	Force squashing or pushing together, which changes the shape of an object.	
Tension	Force extending or pulling apart.	
Reaction	The support force provided by a solid surface like a floor.	
Extension	The difference between the original length of an object and the length when you apply a force.	
Elastic limit	The point beyond which a spring will not return to its original length when the force is removed.	