



Fair test



research



observation

Year 5
Autumn 1

FORCES

How do machines work?



Pattern seeking



identify/classify



problem solving

Lesson 1 Understand gravity
Is gravity a contact or non contact force?



Weight, mass, astronomy, gravity, Sir Isaac Newton

Lesson 2 examine the connection between air resistance and parachutes.

What is the purpose of a parachute?



Opposing, air resistance, parachute, streamlined







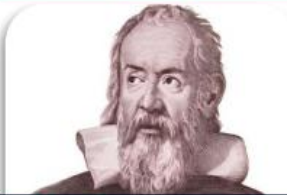
Lesson 3 explore factors that effect water resistance

Explain the similarities and differences between air and water resistance.



_streamlined, upthrust, buoyant, water resistance, sink



Mechanisms		Mass and Weight		
	Pulleys A pulley is a wheel over which a belt, rope, or chain is pulled to lift or lower a heavy object.		 The mass of an item can be measured in Grams/ Kilograms . Weight is how much force is needed to pull an object and is measured in Newtons .	
	Levers Levers are a bar that rotates around a point. They make it easier to lift a heavy load.			Sir Isaac Newton developed his theory of gravity.
	Gears/Cogs Gears are toothed wheels that mesh together, they rotate in opposite directions.			Galileo conducted experiments to test mass.

Careers connected this topic aerodynamics engineer, forensic investigator

Lesson 4 investigate friction on different surfaces

What is the difference between friction and gravity?



Newton meter, resistance, lubricant, Newton, friction

Lesson 5 investigate levers and pulleys

Can you give examples of levers you use in your life?

Load, pulley, lever, pivot, fulcrum

Lesson 6 investigate gears

Can you explain how a gear converts energy?

Gear, mesh, mechanism, rack and pinion, bevel gear

Lesson 7

Can you explain all you have learned from this topic?

Vocab-all words from previous lessons.

