Easton CE Academy Knowledge Organiser for Year 5 Science: FORCES

Tier 3 Vocabulary

forces	Pushes or pulls	
gravity	The pulling force exerted by the Earth (or anything else that has mass) The pulling force towards the centre of the Earth (this keeps us on the ground)	
gravitational pull		
weight	Measures the pull of gravity on an object	
mass	Measures how much matter (or "stuff") an object is made from	
friction	A force that acts between two sur- faces or object that are moving (or trying to move) across each other	
air re- sistance	A type of friction caused by air push- ing against a moving object	
water re- sistance	A type of friction caused by water pushing against a moving object	
buoyancy	An upward force that a liquid applies to objects	
streamlined	When an object is shaped to mini- mise the effects of air or water re- sistance	
mechanism	Parts that work together in a ma- chine (e.g. pulleys, levers and gears)	
Newton	Unit to measure force	

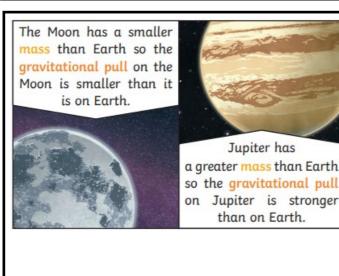
Working and thinking scientifically

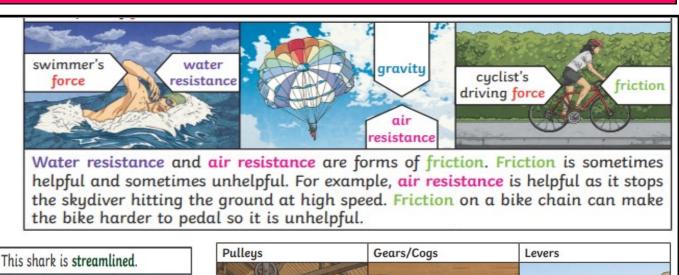
We are being scientists by:

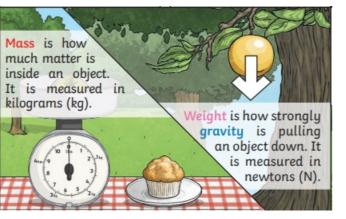
- Using scientific language and ideas to identify • forces
- Reporting on findings from research
- Identifying factors that affect the forces on para-• chutes
- Recording results, and drawing and presenting • conclusions
- Taking and respeating readings with increasing ٠ accuracy

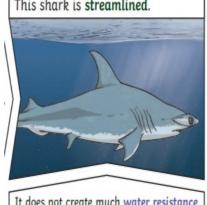
Forces can make an object	- start to ly or cha
an object	- change
Friction is	sometim
Air and water re- sistance are	forms of
The gravitational pull of the Earth	keeps us
Pulleys, levers and	are exan
Weight	measure measure

Pictures and Diagrams









It does not create much water resistance so it can move through the water quickly.



Pulleys can be used make a small force a lighter load. The m wheels in a pulley, less force is needed to a weight.



Key Facts

o move, stop moving, move faster, move more slowange direction

e shape

mes helpful and sometimes unhelpful

f friction

is on the ground and keeps the moon in orbit

mples of mechanisms

es the force of gravity on an object (and mass es how much stuff it is made of)

	Gears/Logs	Levers
North Market		
d to lift more the o lift	Gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.	Levers can be used to make a small force lift a lighter load. A lever always rests on a pivot.