

**7Ka – Sports and forces/The forces are with us**

Word	Pronunciation	Meaning
air resistance		A force that slows things down that are moving through air. It is a type of friction.
contact force		A force that needs to touch an object before it can affect it (e.g. friction).
force		A push or a pull.
force meter		Piece of equipment containing a spring that is used to measure forces.
friction		A force that slows things down when two things rub against each other.
gram (g)		A unit for measuring mass.
gravity		The force of attraction between any two objects. The Earth is very big and so has strong gravity that pulls everything down towards it.
kilogram (kg)		A unit for measuring mass. There are 1000 g in 1 kg.
magnetism		A force that attracts objects made out of iron.
mass		The amount of matter that something is made of. Mass is measured in grams (g) and kilograms (kg). Your mass does not change if you go into space or to another planet.
newton (N)		The unit of force.
newton meter		Another name for a force meter.
non-contact force		A force that can affect something from a distance (e.g. gravity).
static electricity		A force that attracts things. It is caused when certain materials rub together.
upthrust		A force that pushes things up in liquids and gases.
water resistance		A force that slows things down that are moving through water. It is a type of friction.
weight		The amount of force with which gravity pulls something towards the Earth. It is measured in newtons (N).

**7Kb – Friction**

Word	Pronunciation	Meaning
lubricant	<i>loo-brick-ant</i>	A substance (normally a liquid) used to reduce friction.
lubricating	<i>loo-brick-ay-ting</i>	Adding a lubricant to something.

**7Kc – That floating feeling**

Word	Pronunciation	Meaning
density		The amount of mass that 1 cm <sup>3</sup> of a substance has. Measured in g/cm <sup>3</sup> .
displace		To push out of the way.

**7Kc – Focus on: Safe sports**

No new words.

**7Kd – Balancing act**

Word	Pronunciation	Meaning
balanced forces		Two forces that are the same strength and working in opposite directions.
elastic		Any substance that will return to its original shape and size after it has been stretched or squashed.
stationary	<i>stay-shun-arry</i>	Not moving.
unbalanced forces		Two forces working in opposite directions that are not the same strength.

**7Ke – The need for speed/Safety standards**

Word	Pronunciation	Meaning
braking distance		The distance a car travels while the brakes are trying to stop it.
distance–time graph		A graph that shows how far and how fast something travels during a journey.
kilometres per hour (km/h)		Units for speed when the distance is measured in kilometres and the time is measured in hours.
metres per second (m/s)		Units for speed when the distance is measured in metres and the time is measured in seconds.
miles per hour (mph)		Units for speed when the distance is measured in miles and the time is measured in hours.
speed		How fast something is moving. Often measured in metres per second (m/s).
stopping distance		The distance a car moves while it is stopping. The stopping distance is equal to the thinking distance and the braking distance added together.
thinking distance		The distance a car travels while the driver is deciding to press the brake pedal.