

Science : Forces in Action!

Vocabulary:

friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
force	a force is an influence that causes the motion of an object to move.
balanced	an even distribution of weight enabling something to remain steady.
unbalanced	make something unsteady so that they move.
push	the force that is responsible for an object moving from the state of rest.
pull	a force in which an object moves towards the source .
gravity	an invisible force that keeps you on the ground and what makes things fall.
reaction force	A reaction force is a force that acts in the opposite direction to an action force .
air resistance	a kind of friction that occurs between air and another object.
water resistance	a type of force that uses friction to slow things down that are moving through water .
newton	the amount of force required to make a mass move.
streamlined	An object that is shaped to travel through air or water with as little resistance as possible .

What we need to know...



Newton meters measure the force acting against any given object. The greater the force, the larger the number of newtons shown on the newton meter.

Key Questions:

What are forces?

Can I accurately measure the force of gravity pulling on objects?

Can I explain what air resistance is?

Can I investigate and explain how air resistance affects moving objects?

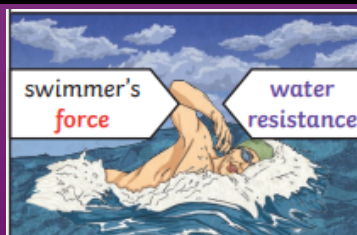
It has a pointed nose to cut through the water, and a smooth, low, curved back to allow the water to flow over and around it.

This shark is **streamlined**.



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

Here are some examples of forces in action:



Water resistance and air resistance are forms of friction. Friction is sometimes helpful and sometimes unhelpful. For example, air resistance is helpful as it allows the parachute to fall more slowly to the ground. Friction on a bike chain can make the bike harder to pedal so it is unhelpful.