Newton’s laws

Learn Newton’s three laws of motion the Kiwi way.

Newton’s first law

An object will remain at rest or keep moving forever at the same speed and in a straight line unless there is another force acting on it.

Example: you’re walking down the beach with a tasty scoop of hokey pokey ice cream. You tilt your cone slightly and the ice cream falls off and onto the sand. Now you have a sandy scoop...

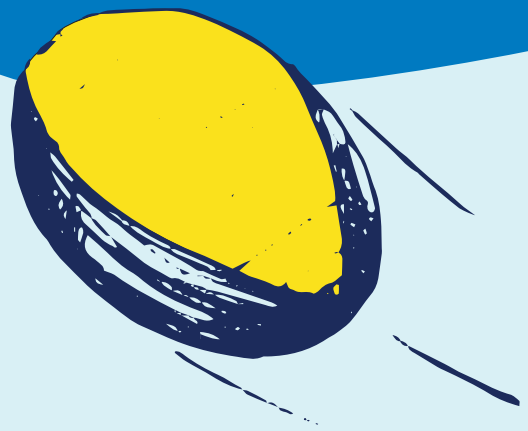
When you tilted your cone, the ice cream stopped resting on it and the force of gravity took over – pulling the ice cream to the ground. The force of the sandy beach is what stops the ice cream’s fall.

Newton’s second law

Force = mass x acceleration.

Example: a sheep and a kiwi both want a piggyback. It’s easy peasy to pick up the kiwi because it’s not very heavy. But picking up the sheep is hard... you need the help of your kaiako to get it off the ground.

This is because we need more force to move heavy objects. Two people have more force than one, so we need the help of another person to give the sheep its piggyback.



Newton’s third law

For every action there is an equal and opposite reaction.

Example: Everything is resting on Jordie Barrett to score the winning points in the Rugby World Cup. He kicks the ball with all his might and it flies over the post just as the clock hits zero. Goal!

Here, the action was Jordie’s foot hitting the ball. The equal and opposite reaction was the ball flying over the goal post.

Wonder Project **Rocket Challenge**