



## Cars - How do cars work?

### Fact

- A car has lots of bits that help it to work. Wheels to help it move smoothly across the ground; a steering wheel to help the wheels turn so it can move around corners; brakes to slow it down and to stop it from moving but one of the most important parts of a car is the engine.
- The engine needs petrol to work. Petrol burnt inside the engine causing lots of little explosions. The explosions push the pistons, inside the engines down and the push of the pistons turns the crank shaft.
- The crank shaft turns the drive shaft and that turns the axel which makes the wheels turn.
- When the wheels turn, they make the car move.

### Do you know

- When you put your foot on the accelerator it lets more petrol into the engine. The more petrol in the engine the faster the explosions in the engine and the faster the pistons go up and down. The faster they go the faster everything goes including the wheels which makes the car go faster!
- The fumes from the petrol exploding inside the engine are released through the exhaust pipe at the back of the car.
- The brakes on your car work the same as the breaks on your bike. The break pad pushes down on the wheel causing friction and slowing the wheel down.
- Some cars have a third pedal on the floor of the car called a clutch. If your car has a clutch it will also have a gear leaver and the gear lever is a bit like the gears on a bike. The gears help the car to move easily at different speeds. The clutch allows you to change gears smoothly and easily.
- The first car trip between Wellington and Auckland took place in 1905 and the trip was 7 days long! [http://www.ltsa.govt.nz/fascinating\\_facts/](http://www.ltsa.govt.nz/fascinating_facts/)

### Experiments you can do

Have a look at the gears and brakes on your bike. Hold the breaks down on your handle bars and see where the brake pad on your bike touches the wheel. (it's harder to see on a car)

Experiment with the different gears on a bike. If you have your bike in the highest gear is it easy to start peddling from a stand still? Why would that be? It works a bit like that on a car too.

### **Other Investigations**

Find out how old you must be before you can learn to drive a car. Why do you have to be that old before you can learn to drive a car? Find out about the tests you must do to get your driver's licence and see if you can answer any of the questions now.

### **Jokes**

What do you call an expensive car with a cheap name?

A poor-sche.

From Matthew

What did the alien say to the gas pump?

Take your finger out of your ear when I'm talking to you

From Stella Davies