



Roads - How do you build a road?

Fact

- First of all, you need to build the foundation of a road higher than the land on either side of it. This helps rainwater drain away.
- The foundation is made of a layer of broken rock and then layers of crushed rock and fine gravel. Heavy rollers pack these layers down to make them strong and firm
- The road is then sealed with a mixture like asphalt or concrete to seal in the dust and keep the water out. A seal like asphalt or concrete makes a smooth, hard surface for vehicles to drive on.
- And the road is shaped as it's made – high in the middle and low at the sides to help the rainwater runoff it and roads are also shaped to help cars go round corners easily and safely.

Do you know

- People began building roads from very ancient times. It was important to have roads so people could get from place to place easily and safely.
- The earliest roads were just mud tracks for horses and horse drawn carts and those tracks got even muddier in winter!
- The first road builders in the world were the Romans
- Roads in New Zealand are black because we use bitumen in our road mix. Bitumen is made from oil and most of it is produced at Marsden Point just south of Whangarei
- If we joined all the roads in New Zealand together, we'd have enough road to go round the world about 2 and 1/4 times

Experiments you can do

Make a road in a sandpit or at the beach

First of all, choose the path your road is going to take. You'll need to build the level of your road up to begin with using large pebbles for your broken rock then layers of smaller bits of gravel to make your foundation.

Asphalt and concrete are too hard to use for this project so pretend that dirt is your seal and use the spade from a bucket and spade set to get your seal as flat as possible.

Other Investigations

There are always road works going on somewhere near where you live :o) either new roads are being built or old roads are being fixed with a new surface being put on top of the old one. In New Zealand we use bitumen to seal our roads.

Have a look at where they've put the roads. Why do you think the road builders put the roads where they have?

Jokes

Did you hear the joke about the road? It was a really long one