

Autumn 1: Design Technology: Mechanisms: Wheels and Axles- Vehicles

What can I remember?

- Can you remember how you made your paper toy last year? Could you instruct an adult on how to make this?
- Can you remember how you could make your toy stronger?

Fascinating facts 2

Once you have designed your model you will need to **make** it. Your model can be made from lots of different materials!

Wheels could be made from wood, card, MDF, plastic, cotton reels or foam.

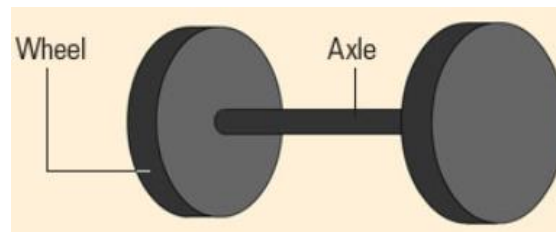
Axles could be made from dowels or paper sticks.



Fascinating facts 1

Firstly, you will need to **design** your model to plan what you want it to look like and how you plan to make this!

Think carefully about what type of vehicle you would like your model to be but remember, your vehicle must have wheels and axles on it!



Example vehicles that have axles and wheel mechanisms:



Can you identify the wheels and axles on each?

Key Vocabulary

Mechanisms – the parts that make something work.

Wheels and axles are mechanisms that help things to move.

Wheels– Round objects that roll on the ground, helping vehicles and other objects to easily move.

Axles – The rods that help the wheels rotate.

Chassis – The frame on which the vehicle is built.

Prompts for Parents

- ✓ Can you name another object that has a wheel and an axle?
- ✓ Can you design a new toy with wheels and axles on it?
- ✓ Can you explain why wheels and axles are important and very useful for some things?

Fascinating facts 3

Once you have designed and made your model it is time to **evaluate!** This is where you identify strengths and weaknesses of your final product.

Is there anything you might change next time?

Fascinating facts 4

There are many different techniques to join materials including:

- gluing
- using paper clips
- staples
- string

Fascinating facts 5

Wheels and axles make a hard job easier! Imagine a world with no wheels. No cars, no bicycles, no skateboards, no roller skates! Your options would be to walk, use horses and other animals, use sleds, or go by boat. Not very convenient, right?