



# Disaster Strikes

## How do axles help wheels to move a vehicle?

### John Braithwaite



John Braithwaite invented the first steam fire engine.

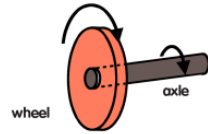
His design used four wheels attached to two axles.

In the 1930s, a fire engine would have had a petrol driven engine. Modern fire engines still have four wheels attached to two axles.

### 1. What is an axle?

### 2. What does it do?

Axels are used to connect the wheels to the main body of a vehicle. If there wasn't an axle the wheels would fall off and the vehicle wouldn't be able to move.



### Future jobs

Engineer, mechanic, car designer

### 4. How successful was my axel in moving my vehicle?

How can I evaluate my finished product? What went well? What would I do differently next time?



### 2. How do I join the wheels to my vehicle?

There are many different ways to join materials together. Different joining processes are used depending on the materials. We will be joining the wheels to the axle by experimenting with glue, Velcro and tape.

### 3. How can I use an axel when designing a vehicle?

When creating something new the design needs to be fun and engaging as well as quite simple.

What does an emergency vehicle need to have to make it stand out from other vehicles?



### Key words

**Axle**— a rod that attaches two wheels together.

**Axles**— more than one rod attaching wheels together. (a fire engine has two axles.)

**Wheels** - a circular object that turns

### Tools

Pen, scissors, ruler, pencil, stapler, hole punch

