

In DT we are learning about... **Mechanics - Can you make a moving vehicle for a younger sibling, cousin or friend?**

Key vocabulary

Mechanism - are the parts that make something work

Wheels - are circular objects that roll on the ground, helping vehicles and other objects to easily move

Axles - are rods that help wheels to rotate

Axle holders - a component that holds the axles and allows it to rotate

Chassis - The chassis is the frame or base on which the vehicle is built

Dowel - a cylinder shape rod usually made from wood, plastic or metal

Friction - a force that resists sliding/rolling of one object over another

Purpose - How your product is going to be used

User - Who is going to be using your product

Sticky knowledge and skills

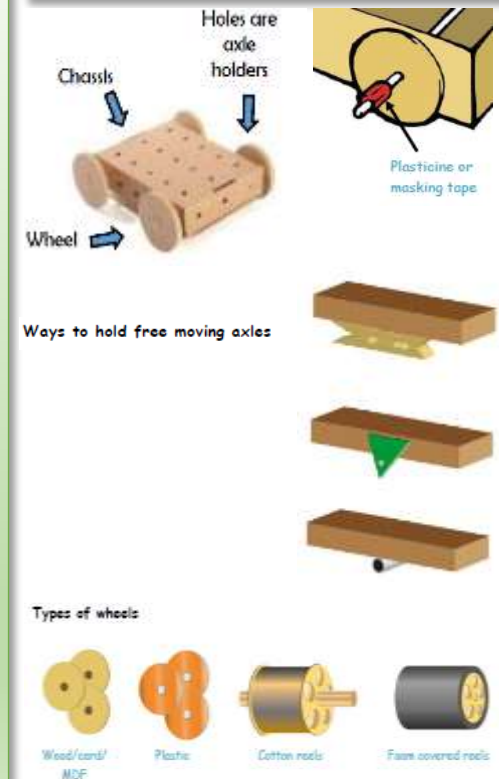
- Wheels and axles are mechanisms that help things to move.
- If your axles are fixed to the chassis then the wheels turn on their own.
- If your axles are not fixed to the chassis then the wheels will move with the rotating axles.
- A chassis should be strong and rigid enough to hold a vehicle.
- The chassis should include axle holders designed so that the axle fits freely in the axle holder.
- You can use pegs, straws and paper triangles to hold free moving axles
- Stoppers help to keep the wheels from falling off.
- I can explain the purpose of my structure and how it works.
- I can use create a product with a simple mechanism using wheels and axles.
- I can begin to talk about the user.
- I can use drawing to design my structure and label key parts.
- I can identify the tools and materials I am going use and why.
- I can use simple one-handed tools safely and with increasing confidence e.g. a pencil/paintbrush, scissors and a glue spreader.
- I can use a junior hacksaw with support.
- I can use a ruler to begin to measure.
- I can join materials using glue and tape in different ways that my teacher has shown me.
- I can explain what works well in my product and suggest simple ways to improve it.

Links to previous learning

- Using one- handed tools such as scissors
- Exploring wheeled toys through play and joining more than one material together using glue or tape
- Talking about what I have made and how I made it
- Year 2 will have some knowledge of using wheels and axles and using a junior hacksaw with adult support

Key Designers

Karl Benz
George Stevenson



Characteristics needed for this topic:

- Problem Solving/reasoning
- Perseverance
- Imagination



Aspirations

- Mechanical Engineer
- Automotive Mechanic
- Train Maintenance Technician
- Heavy Equipment Operator

