

# Year 1 Terms 1 & 2 DT - mechanisms



Curriculum Key Question:  
How can I express myself?

Topic: Journeys

To explore and evaluate a range of wheeled products.

To make a product that moves.

To explore and assemble wheels and axles.

To design a wheeled product that moves.

To make a wheeled product that moves (using a design).

To evaluate our product.

## What should I already know?

- That equipment and tools have to be used safely and understand how to transport and store equipment safely.
- Able to use one-handed tools and equipment..
- Able to make toys work by pressing parts or lifting flaps to achieve effects, such as sound, movements or new images.
- Able to handle tools, objects, construction and malleable materials safely and with increasing control.
- Able to construct with a purpose in mind, using a variety of resources.
- Able to select tools and techniques needed to shape, assemble and join materials they are using.
- Able to use what they have learnt about media and materials in original ways, thinking about uses and purposes.

## Expected outcomes by the end of this topic:

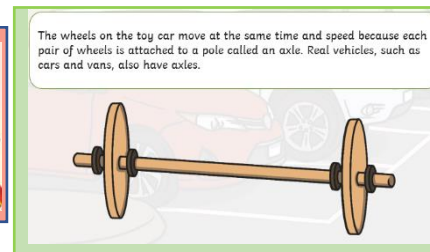
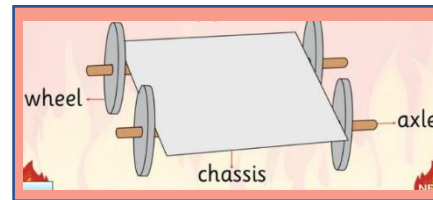
- To have learnt some vocabulary associated with Wheels & axles unit
- Explored wheeled products
- Made a moving product
- Used wheels and axles
- Identified the product and purpose and the user
- Discussed ideas
- Followed design to make a similar product that has wheels and axles and can move
- Evaluate the product they created

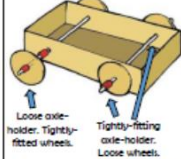

## What could you design, make and evaluate?

- push/pull toys e.g. emergency service vehicle
- carnival float
- farm vehicle
- clown's car
- vehicle for story character
- shopping trolley

## Who is the intended user?

- themselves
- people who help us
- friends
- story character
- farmers/farm animals
- teddy
- doll



Making & Evaluating	
<p><b>Making</b></p> <ul style="list-style-type: none"> <li>-Wheels could be made from wood, card, MDF, plastic, cotton reels, or foam-covered reels.</li> <li>-Axles could be made from dowels or paper sticks.</li> </ul>  <p><b>Free Axles - Fixed Wheels</b> -The axles move with the wheels. Loose-fitting axle-holder, tightly fixed wheels.</p> <p><b>Fixed Axles - Free Wheels</b> -The axles will remain fixed to the chassis. The wheels move alone. Tight-fitting axle-holder, loose-fitting wheels.</p>	<p><b>Evaluating</b></p> <ul style="list-style-type: none"> <li>-How well does your mechanism work? Does it move smoothly?</li> <li>-Does it meet its purpose?</li> <li>-Who would use your mechanism? What would they like about it?</li> <li>-How did you prevent any unwanted friction?</li> <li>-How did this affect the mechanism?</li> <li>-What else could you do to improve your mechanism?</li> </ul> 

## Key Vocabulary

- vehicle** - something used to carry and move people or things. Cars, buses, and airplanes are vehicles.
- mechanisms** - the parts that make something work.
- wheel** - a round circle shape for moving.
- axle** - a rod that holds two wheels.
- axle holder** - a strong part to hold the axle.
- chassis** - the shape that holds the axle holder. It is the frame that supports the body and engine in a vehicle.
- body** - the main supporting structure of the vehicle. The shape of the body defines the type of the car.
- assembling** - putting the parts together.
- joining** - the act of combining things together.
- fixed** - firmly placed
- free** - not firmly placed
- moving** - to change position or place.
- design** - to plan something before you make it.
- make** - to create something using your desing.
- evaluate** - to reflect on what you have made.
- purpose** - the reason for something being made.
- user** - will use the product.