

# Year 1 Terms 1 - Mechanisms



Topic: Journeys

## 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.

## What could you design, make and evaluate?

- Push/pull toys e.g. emergency service vehicle
- carnival float
- farm vehicle
- vehicle for story character

## Who is the intended user?

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



## Expected outcomes by the end of this topic:

### Design:

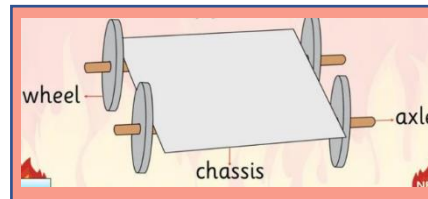
- Generate initial ideas and simple design criteria through talking and using own experiences
- Develop and communicate ideas through drawings and mock-ups

### Make:

- Make a design using appropriate techniques
- With support, measure, mark out, cut, and shape a range of materials
- Use tools e.g., scissors safely
- Assemble, join, and combine materials together using glue/ masking tape

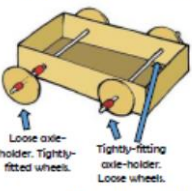

### Evaluate:

- Discuss how well the product works in relation to the purpose
- Evaluate their products as they are developed, identifying strengths and possible changes they might make
- Ask questions about what they have made and how they have gone about it



The wheels on the toy car move at the same time and speed because each pair of wheels is attached to a pole called an axle. Real vehicles, such as cars and vans, also have axles.



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.
- Intended User** – the person that will use the product.
- mechanisms** – the parts that make something work.
- wheel** - a round circle shape for moving.
- axle** – a rod that holds two wheels.
- chassis** - The shape that holds the axle holder. It is the frame that supports the body and engine in a vehicle.
- diagram** - drawing with labels
- body** – the main supporting structure of the vehicle. The shape of the body defines the type of the car.
- joining** – the act of combining things together.
- 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.
- Intended User** – will use the product.