



Year:	1 and 2	Unit:	Mechanisms (wheels and axels)
Overview: In this topic children will learn about the main components of a wheeled vehicle; experiment with mechanisms to help them develop their understanding of how wheels, axels and axel holders work; assume the role of a mechanic to problem-solve why wheels won't rotate; demonstrate learning by designing and building their own moving vehicles. Design Brief: The children will create a fire engine that move using wheels and axils.			

Key Vocabulary		Key skills		
		<i>Design</i>	<i>Make</i>	<i>Evaluate</i>
Axle	A long straight rod which connects aa rotating part (e.g the wheels of the card)	- Explaining how to adapt mechanisms, using bridges or guides to control the movement - Designing a vehicle that includes wheels, axles and axle holders, which will allow the wheels to move - Creating clearly labelled drawings which illustrate movement	- Following a design to create moving models - Adapting mechanisms	Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed - Reviewing the success of a product by testing it with its intended audience - Testing mechanisms, identifying what stops wheels from turning, knowing that a wheel needs an axle in order to move Y2 Evaluating own designs against design criteria - Using peer feedback to modify a final design - Evaluating different designs - Testing and adapting a design
Axle holder	The part of a mechanism which holds the axel steady.			
Chassis	The body of a car			
Design	To make, draw or write plans for something.			
Fix	To mend something so it works properly			
Mechanic	A person who can build or mend vehicles and other machines			
Mechanism	Parts of an object that move together to make something work			
Model	A practise version that lets you test out your idea.			
Test	To find out whether something works as it should.			
Wheel	A circular object that turns around			

Progression of knowledge and skills in textiles

What should I already know? (EYFS)

Imagination

- Create simple representations of objects.
- Chooses particular colours to use for a purpose.

ELG

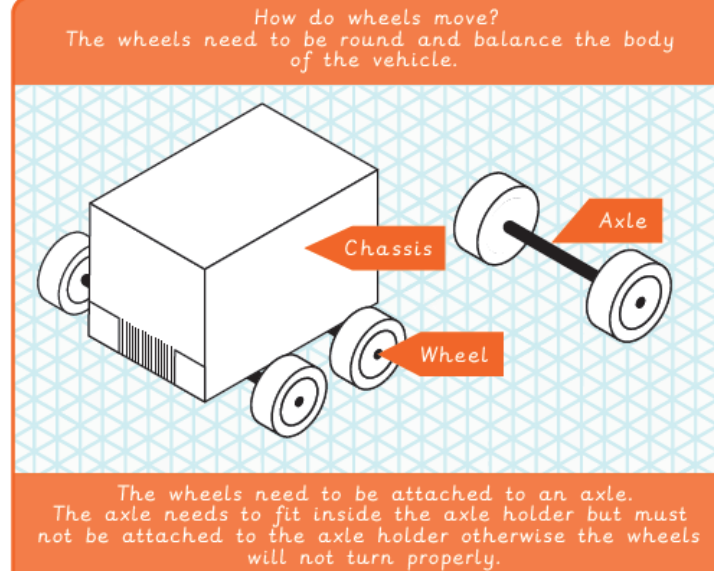
Children use what they have learnt about media and materials in original ways, thinking about uses and purposes.

Exploring and using media and materials

- Understands that different media can be combined to create new effects.
- Manipulates materials to achieve a planned effect.
- Constructs with a purpose in mind, using a variety of resources.
- Uses simple tools and techniques competently and appropriately.
- Selects appropriate resources and adapts work where necessary.
- Selects tools and techniques needed to shape, assemble and join materials they are using.

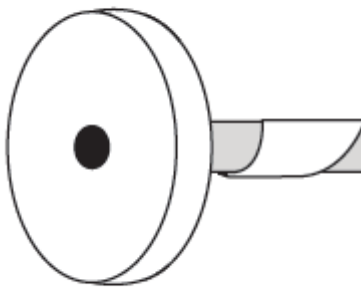
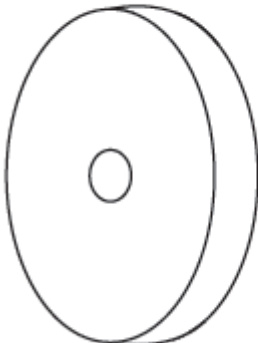
ELG

They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.



What will I learn in this unit? (KS1)

To generate ideas and simple design criteria.
To develop and communicate ideas through drawings and mock-ups.
To select a range of tools and equipment and materials to perform practical tasks.
To explore wheels and axles and evaluate their ideas and products against original criteria.

	Wheel	Axle		
		Axle holder		
				