

Our Learning Journey: Wheels & Axles

Our enquiry question:	Conceptual Knowledge	Designers knowledge	Reflection
Can I understand how wheels move?	<p>I can identify what mechanism makes a toy or vehicle roll forwards.</p> <p>I can recall that in order for a wheel to move it must be attached to an axle.</p> <p>I can draw and label a diagram of an axle, wheel and axle holder.</p>	<p>work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry and the wider environment</p> <ul style="list-style-type: none"> state what products they are designing and making say whether their products are for themselves or other users describe what their products are for say how their products will work say how they will make their products suitable for their intended users use simple design criteria draw and label a diagram of an axle, wheel and axle holder generate ideas by drawing on their own experiences 	
Can I identify what stops wheels from turning?	<p>I can recall that a wheel needs an axle in order to move.</p> <p>I can fix a design so that the wheel can move.</p> <p>I can use appropriate vocabulary to describe which parts are moving or not.</p>	<ul style="list-style-type: none"> use knowledge of existing products to help come up with ideas develop and communicate ideas by talking and drawing model ideas by exploring materials, components and construction kits and by making templates and mockups use information and communication technology, where appropriate, to develop and communicate their ideas talk about their design ideas and what they are making make simple judgements about their products and ideas against design criteria identify what mechanism makes a toy or vehicle roll forwards know that in order for a wheel to move it must be attached to an axle about the movement of simple mechanisms such as levers, sliders, wheels and axles- understand how wheels move 	
Can I design a moving vehicle?	<p>I can recall what makes a wheel and an axle work.</p> <p>I can design a moving vehicle.</p> <p>I can label my design using appropriate vocabulary.</p>	<ul style="list-style-type: none"> how freestanding structures can be made strong identify what stops wheels from turning. what products are who products are for what products are for how products work how products are used where products might be used what materials products are made from what they like and dislike about products 	
Can I build a moving vehicle?	<p>I can make a wheel and axle mechanism. I can evaluate my design to make it even better</p>	<ul style="list-style-type: none"> plan by suggesting what to do next select from a range of tools and equipment, explaining their choices select from a range of materials and components build a moving vehicle. follow procedures for safety and hygiene use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components measure, mark out, cut and shape materials and components assemble, join and combine materials and components use finishing techniques, including those from Art and Design. suggest how their products could be improved 	
End of unit assessment	<p>What is an axle? How does the axle work?</p>		