

*Design technology– Year 1– Medium Term Plan
Autumn 2, Unit 1: Mechanisms: Wheels and Axles*

<i>Lesson</i>	<i>Learning Objective</i>	<i>Success Criteria</i>	<i>National Curriculum Links</i>	<i>Vocabulary</i>	<i>Resources</i>
<i>One: How do wheels move?</i>	<i>To understand how wheels move.</i>	<ul style="list-style-type: none"> - <i>I can identify what mechanism makes a toy or vehicle roll forwards</i> - <i>I can recall that in order for a wheel to move it must be attached to an axle.</i> - <i>I can draw and label a diagram of an axle, wheel and axle holder.</i> 	<p><i>Evaluate</i></p> <p><i>Explore and evaluate a range of existing products.</i></p> <p><i>Technical Knowledge.</i></p> <ul style="list-style-type: none"> - <i>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i> 	<ul style="list-style-type: none"> - <i>Axle</i> - <i>Axle holder</i> 	<ul style="list-style-type: none"> - <i>Items that have wheels, such as bicycles, tricycles, trundle wheels, toy cars, skateboards and trolleys (arranged around the classroom – see Attention grabber).</i> - <i>Equipment for the children to experiment with (per small group):</i> - <i>selection of straws;</i> - <i>paper;</i> - <i>glue or masking tape;</i> - <i>scissors.</i>
<i>Two: Fixing broken wheels</i>	<i>To identify what stops wheels from turning.</i>	<p><i>I can recall that a wheel needs an axle in order to move.</i></p> <p><i>I can fix a design so that the wheel can move.</i></p> <p><i>I can use appropriate vocabulary to describe which parts are moving or not.</i></p>	<p><i>Evaluate</i></p> <ul style="list-style-type: none"> - <i>Explore and evaluate a range of existing products.</i> <p><i>Technical knowledge</i></p> <ul style="list-style-type: none"> - <i>Pupils should be taught to:</i> - <i>Explore and use mechanisms in their product.</i> 	<ul style="list-style-type: none"> - <i>axle</i> - <i>axle holder</i> - <i>equipment</i> - <i>mechanism</i> - <i>wheel</i> 	<p><i>Presentation: Quizmaster.</i></p> <p><i>Link: Sid the science kid - How wheels work on VideoLink</i></p>
<i>Three: Designing a vehicle</i>	<i>To design a moving vehicle.</i>	<p><i>I can recall what makes a wheel and an axle work.</i></p> <p><i>I can design a moving vehicle.</i></p> <p><i>I can label my design using appropriate vocabulary.</i></p>	<ul style="list-style-type: none"> - <i>Design</i> - <i>Pupils should be taught to:</i> - <i>Design purposeful, functional, appealing products for themselves and other users based on design criteria.</i> - <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and technology.</i> 	<ul style="list-style-type: none"> - <i>axle</i> - <i>axle holder</i> - <i>equipment</i> - <i>mechanism</i> - <i>wheel</i> 	<ul style="list-style-type: none"> - <i>Presentation: Gimme five and Vehicles.</i> - <i>Audio: Soundtrack: Mission Impossible.</i> - <i>Ruler.</i> - <i>Materials for making vehicles:</i> - <i>body: cardboard tubes, cardboard boxes or yoghurt pots;</i> - <i>axle: straws or dowel (cut to size);</i> - <i>wheels: wooden wheels, card discs or plastic cotton reels.</i>

<p>Four: Wacky Races</p>	<p>To build a moving vehicle.</p>	<ul style="list-style-type: none"> - I can make a wheel and axle mechanism. - I can evaluate my design to make it even better. - 	<p>Design Pupils should be taught to:</p> <ul style="list-style-type: none"> • Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. <p>Make Pupils should be taught to:</p> <ul style="list-style-type: none"> • Select from and use a range of tools and equipment to perform practical tasks. <p>Evaluate Pupils should be taught to:</p> <ul style="list-style-type: none"> • Evaluate their ideas and products against design criteria. <p>-</p>	<ul style="list-style-type: none"> - axle - axle holder - equipment - mechanism - wheel 	<p>Design</p> <ul style="list-style-type: none"> - Pupils should be taught to: - Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. - Make - Pupils should be taught to: - Select from and use a range of tools and equipment to perform practical tasks. - Evaluate - Pupils should be taught to: - Evaluate their ideas and products against design criteria.
<p>Assessment:</p> <ul style="list-style-type: none"> - End of unit quiz: name the parts, what is a car chassis, how do wheels spin, what does fix mean, what does accurate mean. 					

*Design technology– Year 1– Medium Term Plan
Spring 2, Unit 2: Textiles: Puppets*

<i>Lesson</i>	<i>Learning Objective</i>	<i>Success Criteria</i>	<i>National Curriculum Links</i>	<i>Vocabulary</i>	<i>Resources</i>
<i>One: Joining Fabrics</i>	<i>To join fabrics together using different methods.</i>	<ul style="list-style-type: none"> - <i>I can remember that different techniques may be used to join fabrics for different purposes.</i> - <i>I can join fabric by pinning, stapling or glueing.</i> 	<p><i>Make</i></p> <ul style="list-style-type: none"> - <i>Select from and use a wider range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</i> <p><i>Evaluate</i></p> <ul style="list-style-type: none"> - <i>Pupils should be taught a range of existing products.</i> 	<ul style="list-style-type: none"> - <i>Design</i> - <i>Equipment</i> - <i>Glue</i> - <i>Hand puppet</i> - <i>Safety pin</i> - <i>Technique</i> 	<ul style="list-style-type: none"> - <i>Little Red Riding Hood storybook (optional – see Attention grabber).</i> - <i>Glove, mitten and hand puppet examples (see Attention grabber).</i> - <i>Fabric scraps (six per child across the three tables – see Teacher knowledge).</i> - <i>Safety pins (five per child – see Teacher knowledge).</i> - <i>Staplers and staples (approximately five – see Teacher knowledge).</i> - <i>Fabric glue or PVA (PVA will work on some fabrics like felt – see Teacher guidance).</i> - <i>Glue pots and spreaders (approximately five – see Teacher knowledge).</i> - <i>Pegs, clips or weights (approximately 15 – see Teacher knowledge).</i> - <i>Three tables – one for each fabric joining technique (see Teacher knowledge).</i> - <i>Link: Assessment – Design and technology Y1: Puppets (optional – see Attention grabber).</i> - <i>Link: Little Red Riding Hood - Gigglebox on VideoLink (optional – see Attention grabber) – this link is an external website and we do not have control over its content – please check before showing it to the children.</i>
<i>Two: Designing my puppet</i>	<i>To use a template to create my design.</i>	<ul style="list-style-type: none"> - <i>I can design a puppet using a template.</i> - <i>I can use a template to cut out my puppet.</i> 	<p><i>Design</i></p> <ul style="list-style-type: none"> - <i>Design purposeful, functional, appealing products for themselves or other users based on design criteria.</i> - <i>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.</i> <p><i>Make</i></p> <ul style="list-style-type: none"> - <i>Select from and use a range of tools and equipment to perform practical tasks (for example,</i> 	<ul style="list-style-type: none"> - <i>Decorate</i> - <i>Design</i> - <i>Fabric</i> - <i>Inspiration</i> - <i>Model</i> - <i>Stencil</i> - <i>Template</i> 	<ul style="list-style-type: none"> - <i>Presentation: Agree or disagree.</i> - <i>The list of main characters and their appearance (see Lesson 1: Joining fabrics).</i> - <i>Safety pins (three each, see Main event).</i> - <i>Coloured pencils (a selection per table).</i> - <i>Felt or other fabric – if you do not have fabric scissors, felt will be easier to cut than other fabrics (enough for two A5 templates each – see Main event).</i> - <i>Scissors (to cut paper – one each).</i> - <i>Fabric scissors (if available – one each, see Main event).</i>

			<p>cutting, shaping, joining and finishing).</p> <ul style="list-style-type: none"> - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. 		
<p>Three: Making and joining my puppet</p>	<p>To join two fabrics together accurately.</p>	<ul style="list-style-type: none"> - I can join fabrics together. - I can align two pieces of fabric. - I can use a template. - I can fit my hand into my puppet. 	<p>Design</p> <ul style="list-style-type: none"> - Design purposeful, functional, appealing products for themselves or other users based on design criteria. <p>Make</p> <ul style="list-style-type: none"> - Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. 	<ul style="list-style-type: none"> - Equipment - Fabric - Glue - Safety pin - Technique 	<ul style="list-style-type: none"> - Presentation: Gimme five! - Safety pins (enough for the children choosing this technique – see Teacher knowledge). - Staplers and staples (enough for one between two children choosing this technique – see Teacher knowledge). - Fabric glue or PVA (PVA will work on some fabrics like felt). - Glue pots and spreaders (enough for one between two children choosing this technique – see Teacher knowledge). - Chalk or pens to mark the fabric (optional – see Teacher knowledge). - Pegs, clips or weights (enough for each child choosing the glueing technique – see Teacher knowledge). - Three tables – one for each fabric joining technique (see Teacher knowledge). - The children’s puppet design sheets (see Lesson 2: Designing my puppet).
<p>Four: Decorating my puppet</p>	<p>To embellish my design using joining methods.</p>	<ul style="list-style-type: none"> - I can use joining methods to decorate my puppet. - I can still put my hand into the puppet after it is decorated. - I can evaluate my own and others’ work. 	<p>Design</p> <ul style="list-style-type: none"> - Design purposeful, functional, appealing products for themselves or other users based on design criteria. <p>Make</p> <ul style="list-style-type: none"> - Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing). <p>Evaluate</p> <ul style="list-style-type: none"> - Evaluate their ideas and products against design criteria. 	<ul style="list-style-type: none"> - Decorate - Design criteria - Equipmnt - Inspiration - Model - Technique 	<ul style="list-style-type: none"> - Presentation: Brain dump. - Your demonstration model puppet (optional – see Main event). - Things for the children to decorate their puppets or requested items (see Lesson 3: Making and joining my puppet), such as wool for hair, buttons for eyes, bits of fabric for noses and mouths, ribbons for clothes, etc. (a selection for the children to choose from, see Main event). - Safety pins (enough for the children choosing this technique, see Teacher knowledge). - Staplers and staples (one between two choosing this technique, see Teacher knowledge). - Fabric glue or PVA (PVA will work on some fabrics like felt).

					<ul style="list-style-type: none"> - Glue pots and spreaders (one between two choosing this technique – see Teacher knowledge). - Chalk, pencil or pen (one for each child choosing the glueing technique – see Teacher knowledge). - Three tables – one for each fabric joining technique (see Teacher knowledge). - Link: Assessment – Design and technology Y1: Puppets (optional – see Wrapping up). - Link: Little Red Riding Hood - Gigglebox – this is an external website and we do not have control over its content – please check before showing it to the children.
<p><i>Assessment:</i></p> <ul style="list-style-type: none"> - <i>What do we mean by joining technique?</i> - <i>What picture shows safety pins?</i> - <i>Which picture shows a stapler and staples?</i> - <i>Which picture shows glue?</i> - <i>Which method of joining fabrics needs drying time?</i> - <i>Which pinning and stapeling, be extra careful because...</i> - <i>What is a template?</i> - <i>Which answer describes fabric best?</i> - <i>Drawing a design idea first is important because...</i> - <i>To make a pouch for holding marbles, which joining technique would be best and why?</i> 					



*Design technology– Year 1– Medium Term Plan
Summer 2, Unit 3: Cooking and Nutrition: Smoothies*

<i>Lesson</i>	<i>Learning Objective</i>	<i>Success Criteria</i>	<i>National Curriculum Links</i>	<i>Vocabulary</i>	<i>Resources</i>
<i>One: Fruits</i>	<i>To identify fruits.</i>	<ul style="list-style-type: none"> - I can name fruits and vegetables. - I can identify seeds. - I can sort fruits and non-fruits. 	<i>Cooking and Nutrition</i> <ul style="list-style-type: none"> - Understand where food comes from. 	<ul style="list-style-type: none"> o Fruit o Plant o Seed 	<ul style="list-style-type: none"> - <i>Presentation: What food is this?</i> - <i>Presentation: Finding seeds.</i> - Plates of pre-cut fruits and non-fruits (one per table group – see Teacher knowledge). - Large pieces of coloured paper split into two sections labelled 'fruit' and 'not a fruit' (one per table group – see Main event). - Sticky notes (one or two each – see Main event). - Two hoops (see Wrapping up). - Link: Assessment – Design and technology Y1: Cooking and nutrition – Smoothies (optional – see Attention grabber).
<i>Two: Growing</i>	<i>To describe where fruits and vegetables grow.</i>	<ul style="list-style-type: none"> - I can name places where fruits and vegetables grow. - I can decide whether a fruit or vegetable will grow aboveground or underground. - I can make predictions about where edible parts of plants will grow. 	<i>Cooking and Nutrition</i> <ul style="list-style-type: none"> - Understand where food comes from. 	<ul style="list-style-type: none"> - Bush - Leaf - Root - Soil - Stem - Vegetable - Tree - vine 	<ul style="list-style-type: none"> - <i>Presentation: Gimme five!</i> - <i>Presentation: Where do fruits and vegetables grow?</i> - <i>Presentation: Underground or aboveground?</i> - <i>Presentation: What is the same? What is different?</i> - Scissors (one each). - Glue sticks (one each). - Fruits and vegetables for class discussion (see Attention grabber): <ul style="list-style-type: none"> o 3 potatoes (with soil on); o 3 carrots (with soil on); o 3 apples; o 1 knife; o 1 green chopping board; o 1 brown chopping board.
<i>Three:</i>	<i>To practise food preparation skills.</i>	<ul style="list-style-type: none"> - I can use a fork to hold foods I am cutting. - I can use a table knife to cut soft foods. 	<i>Make</i> <ul style="list-style-type: none"> - Select from and use a range of tools and equipment to perform practical tasks. 	<ul style="list-style-type: none"> - Chopping board - Cut - Fork 	<ul style="list-style-type: none"> - <i>Presentation: Speak like an expert.</i> - <i>Quiz: What is this equipment for?</i> - An extra class adult to supervise juicing skills table (see Main event).

Cutting and juicing		<ul style="list-style-type: none"> - I can use a juicer to get juice from fruits. - I can work safely and follow instructions. 	<p><i>Cooking and Nutrition</i></p> <ul style="list-style-type: none"> - Understand where food comes from. 	<ul style="list-style-type: none"> - Juice - Juicer - Table knife 	<ul style="list-style-type: none"> - Equipment to practise cutting skills (see Main event): <ul style="list-style-type: none"> o 5 table knives; o 5 forks; o 5 green chopping boards; o foods to cut, such as strawberries, tinned pineapple chunks, banana and avocado flesh. - Equipment to practise juicing skills (see Main event): <ul style="list-style-type: none"> o manual juicer; o foods to juice, such as oranges, lemons and limes (cut in half). - 2 large bowls (one for each skills table). - Modelling dough (one handful each – see Main event). - Plastic knives (one each – see Main event).
Four: Testing ingredients	To select ingredients for recipe.	<ul style="list-style-type: none"> - I can choose fruits and vegetables to taste. - I can suggest fruits to put together based on taste. - I can describe a food's taste. - I can decide on three ingredients to create a recipe. 	<p><i>Make</i></p> <ul style="list-style-type: none"> - Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. <p><i>Cooking and Nutrition</i></p> <ul style="list-style-type: none"> - Understand where food comes from. 	<ul style="list-style-type: none"> - Flavour - Select - Taste 	<ul style="list-style-type: none"> - <i>Presentation: Range of answers.</i> - <i>Presentation: Design brief.</i> - <i>Presentation: Food reactions.</i> - The head of the parents' association (optional – see Attention grabber). - Example shop-bought smoothies (a small sample per child – see Attention grabber). - Plates of mixed pre-cut fruit samples (at least one sample of each fruit per child): <ul style="list-style-type: none"> o avocado; o strawberries; o banana; o tinned pineapple. - Small samples of freshly squeezed juice on a supervised tasting table (one sample of each juice per child): <ul style="list-style-type: none"> o orange juice; o lemon juice; o lime juice. - A device to take photographs (one for teacher). - Cocktail sticks or forks (one each). - Scissors (one each). - Glue sticks (one each).
Five: Making smoothies	To apply food preparation skills to a recipe.	<ul style="list-style-type: none"> - I can gather the ingredients for a simple recipe. - I can cut and juice fruits as part of a recipe. - I can use my sense to compare my smoothie with my partners. 	<p><i>Cooking and Nutrition</i></p> <ul style="list-style-type: none"> - Use the principles of a healthy and varied diet to prepare dishes. 	<ul style="list-style-type: none"> - Blend - Blender - Cut - Ingredients - Juice - Recipe 	<ul style="list-style-type: none"> - <i>Presentation: Explain the answer.</i> - <i>Presentation: Design brief.</i> - <i>Presentation: Visual reminders.</i> - An electric blender (see Attention grabber). - Water (see Teacher knowledge). - Equipment to prepare smoothies (one for each child in a small group – see Main event): <ul style="list-style-type: none"> o table knife; o fork; o green chopping board; o bowl; o manual juicer. - Fruits to cut and juice:

					<ul style="list-style-type: none"> ○ strawberries; ○ tinned pineapple chunks; ○ banana; ○ avocado flesh; ○ oranges (cut in half); ○ lemons (cut in half); ○ limes (cut in half). <ul style="list-style-type: none"> - Smoothie cups with a lid (one each – see Main event). - Printed photos of each child’s food reactions from Lesson 4: Testing ingredients. - Straws (two for each child – see Wrapping up). - A device to take photographs (one for the teacher).
Six: Evaluating	To evaluate against the design brief.	<ul style="list-style-type: none"> - I can colour a template to create a carton design. - I can choose my favourite recipe. - I can talk to the class about the design brief. 	<p>Evaluate</p> <ul style="list-style-type: none"> - Evaluate their ideas and products against design criteria. <p>Cooking and Nutrition</p> <ul style="list-style-type: none"> - Use the principles of a healthy and varied diet to prepare dishes. 	<ul style="list-style-type: none"> - Compare - Evaluate 	<ul style="list-style-type: none"> - Presentation: 3, 2, 1. - Presentation: Smoothie packaging designs. - Presentation: Design brief. - The head of the parents’ association (optional – see Wrapping up). - Link: Assessment – Design and technology Y1: Cooking and nutrition: Smoothies (optional – see Wrapping up).
<p>Assessment:</p> <ul style="list-style-type: none"> - Which food is not a fruit? - I would use a juicer for... - Where do apples grow? - Which of these words does not describe taste? - Explain how to make a fruit smoothie... 					