

Year: 1 / 2 Subject: D.T PoS: Wheels and axles		Title: Marvellous Machines			Term - Autumn 2	Curriculum - A
Prior Knowledge - Assembled vehicles with moving wheels using construction kits. - Explored moving vehicles through play. - Gained some experience of designing, making and evaluating products for a specified user and purpose. - Developed some cutting, joining and finishing skills with card.			Key Vocabulary Vehicle, wheel, axle, chassis, axle holder, body, cab.		Outcome Designing, making and evaluating a small-wheeled trolley/car that will carry to a character in a story.	
Future Learning Children in year 2 will continue to build their understanding of cutting, shaping and joining during their unit on structures in year B. In year 3/4 children will continue to look and build upon their understanding of the design, making and evaluating process through all of their units. They will look at different ways of making items that move through using pneumatics, levers and pulleys. They will also continue their understanding of cutting, shaping, joining and finishing in these units as well as their structures unit.			Stimulus Emergency vehicle/ service department visitor First hand experiences (enrichment) Practical activities		World of Work Engineer, mechanic, car designer	
National Curriculum PoS			Key Knowledge		Possible evidence	
<u>Design</u> - To design purposeful, functional, appealing products for themselves and other users based on design criteria - To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology			<u>Technical knowledge and understanding</u> - Explore and use wheels, axles and axle holders. - Distinguish between fixed and freely moving axles. - Know and use technical vocabulary relevant to the project.		- Ask children to generate, develop and communicate their ideas as appropriate e.g. through talk and drawing. Talk about, evaluate and share ideas with other children/adults. - Make their wheel and axle product using their design ideas and criteria as an ongoing guide. - Ask children to evaluate their finished product, communicating how it works and how it matches their design criteria, including any changes they made. https://youtu.be/-iL3-eTwWBw	
<u>Make</u> - To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] - To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics			Application of Key Skills		Possible evidence	
<u>Evaluate</u> - To explore and evaluate a range of existing products - To evaluate their ideas and products against design criteria			<u>Designing</u> - Generate initial ideas and simple design criteria through talking and using own experiences. - Develop and communicate ideas through drawings and mock-ups. <u>Making</u> - Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing. - Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics. <u>Evaluating</u> - Explore and evaluate a range of products with wheels and axles. - Evaluate their ideas throughout and their products against original criteria.		- Explore and evaluate a range of wheeled products such as toys and everyday objects. Through questioning, direct children's observations. - Draw an example of a wheeled product, stating the user and purpose, and labelling the main parts e.g. body, chassis, wheels, axles and axle holders. - Walk around the school building and grounds, recording how wheels and axles are used in daily life. - Read a story or non-fiction book that includes a wheeled product. Use this to introduce relevant vocabulary and to emphasise user and purpose. - Using construction kits with wheels and axles, ask children to make a product that moves. - Demonstrate to children how wheels and axles may be assembled as either fixed axles or free axles. - Show different ways of making axle holders and stress the importance of making sure the axles run freely within the holders.	
<u>Technical knowledge</u> - To build structures, exploring how they can be made stronger, stiffer and more stable - To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.						

Year: 1/2 Subject: D. T PoS: Mechanisms		Topic Title: Super Sliders!	 Term - Spring 1 Curriculum - A
Prior Knowledge - Early experiences of working with paper and card to make simple flaps and hinges. - Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.		Key Vocabulary slider, lever, pivot, slot, bridge/guide, pull, push, up, down, straight, curve, forwards, backwards.	Outcome Designing, making and evaluating a moving storyboard to retell a fairy tale to the class
Future Learning Children will continue their understanding of D.T in every unit as they run through the design, make and evaluate process. In year 3/4, the children will continue to develop their understanding of mechanisms through their unit on levers and sliders in which they will create a moving poster about the environment. In this unit the children will also progress onto pivot points when using levers.		Stimulus Fairy-tale stories and slider books. First hand experiences (enrichment)	World of Work Designer, illustrator, engineer.
National Curriculum PoS <u>Design</u> - To design purposeful, functional, appealing products for themselves and other users based on design criteria. - To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. <u>Make</u> - To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. - To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. <u>Evaluate</u> - To explore and evaluate a range of existing products. - To evaluate their ideas and products against design criteria. <u>Technical knowledge</u> - To build structures, exploring how they can be made stronger, stiffer and more stable. To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Technical knowledge and understanding		Possible evidence
	Evaluating - Explore a range of existing books and everyday products that use simple sliders and levers. Technical knowledge and understanding - Explore and use sliders and levers. - Understand that different mechanisms produce different types of movement. - Know and use technical vocabulary relevant to the project.		- Discuss with the children what they will be designing, making and evaluating e.g. Who will your product be for? What will be its purpose? How do you want it to move? Will you use a lever or a slider? - Generate simple design criteria with the children e.g. the mechanism should work smoothly, it should make the right type of movement. - Encourage the children to develop their ideas through talking, drawing and making mock-ups of their ideas with paper and card. - Discuss the finishing techniques the children might use e.g. using digital text and graphics, paint, felt tipped pens or collage. - As a whole class, talk about the order in which the mechanisms will be made.
	Application of Key Skills		Possible evidence
	Designing - Generate ideas based on simple design criteria and their own experiences, explaining what they could make. - Develop, model and communicate their ideas through drawings and mock-ups with card and paper. Making - Plan by suggesting what to do next. - Select and use tools, explaining their choices, to cut, shape and join paper and card. - Use simple finishing techniques suitable for the product they are creating. Evaluating - Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.		- Demonstrate simple levers and sliders to the children using prepared teaching aids. It is helpful if these are also used in context e.g. the slider is used to show a snail appearing from behind a stone, the lever is used to show a butterfly flying to a flower. - Use questions to develop children's understanding e.g. How does the slider move? How does the lever move? Which part of the mechanism is the pivot? What does the movement of the slider and lever remind you of? - Following teacher demonstration of the correct use of tools and materials, children should develop their knowledge and skills by replicating the slider and lever teaching aids. Encourage children to add pictures to their mechanisms. - Children to design and make their own levers and slider fairy-tale story board using the skills they have learnt. - Ask children to evaluate their developing ideas and final products against the original design criteria.

Year: 1/2 Subject: D.T		Topic Question/Title: Yummy, Yummy in my tummy!	Term - Summer 2	Curriculum - A 
Prior Knowledge - Children in year 2, will have completed a unit in year B, about making a healthy fruit snack. - Experience of common fruit and vegetables, undertaking sensory activities i.e. appearance taste and smell. - Experience of cutting soft fruit and vegetables using appropriate utensils.		Key Vocabulary chopping boards, knives, peelers, graters, skewers, juicers, spoons, jugs, plates, bowls, aprons, plastic table covers, hand washing and washing-up facilities	Outcome Design, make and evaluate a soup for lunch.	
Future Learning In year 3/4 , children will look in more detail at heathy eating. They will look at the different food groups, what foods they should eat. They will explore making healthy sandwiches and learning more food preparation skills. The skills they will learn are cutting, grating and spreading. They will carry out sensory evaluations of a variety of ingredients and products, record the evaluations using e.g. tables and simple graphs and select from a range of ingredients to make appropriate food products, thinking about sensory characteristics.		Stimulus Soup tasting	World of Work Nutritionist, dietitian, entrepreneur	
National Curriculum PoS <u>Design</u> - To design purposeful, functional, appealing products for themselves and other users based on design criteria - To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <u>Make</u> - To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] <u>Evaluate</u> - To explore and evaluate a range of existing products - To evaluate their ideas and products against design criteria <u>Cooking and nutrition</u> - To use the basic principles of a healthy and varied diet to prepare dishes - To understand where food comes from.	Key Knowledge		Possible evidence	
	<u>Technical knowledge and understanding</u> - Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. - Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of The eatwell plate. - Know and use technical and sensory vocabulary relevant to the project.		- Provide opportunities for children to handle, smell and taste fruit and vegetables in order to describe them through talking and drawing. - Discuss healthy eating advice, including eating more fruit and vegetables; using The eatwell plate model talk about the importance of fruit and vegetables in our balanced diet - Discuss with the children the possible products that they might want to design, make and evaluate and who the products will be for.	
	Application of Key Skills		Possible evidence	
	<u>Designing</u> - Design appealing products for a particular user based on simple design criteria. - Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. - Communicate these ideas through talk and drawings. <u>Making</u> - Use simple utensils and equipment to e.g. peel, cut, slice, squeeze, grate and chop safely. - Select from a range of fruit and vegetables according to their characteristics e.g. colour, texture and taste to create a chosen product <u>Evaluating</u> - Taste and evaluate a range of fruit and vegetables to determine the intended user’s preferences. - Evaluate ideas and finished products against design criteria, including intended user and purpose.		- Children examine a range of fruit/vegetables. Use questions to develop children’s understanding e.g. What is this called? Who has eaten this fruit/vegetable before? Where is it grown? - Discuss basic food hygiene practices when handling food including the importance of following instructions to control risk. - Demonstrate how to use simple utensils and provide opportunities for the children to practise food-processing skills such as washing, grating, peeling, slicing, squeezing e.g - Use talk and drawings when planning for a product; ask the children to develop, model and communicate their ideas e.g. What will you need? What fruit/vegetable will you need? How much will you need? How will you present the product? - Evaluate as the children work through the project and the final products against the intended purpose - and with the intended user, drawing on the design criteria previously agreed	