Northway Community Primary School – Key Learning Overview –DESIGN & TECHNOLOGY – CYCLE 1

	TOPIC	COOKING & NUTRITION	STRUCTURES	MECHANISMS	TEXTILES
EYFS	Expressive Art and Design Personal, Social and Emotional Development	*Share their creations, explaining the process they have used. *Show independence and resilience and the face of challenge and when trying new activities. *Describe in simple terms how and why to make healthy food choices. Describe the simple sensory properties of some foods.	*Use junk modelling to build simple freestanding structures *Use paint to decorate products *Strengthen models using modrock *Share their creations, explaining the process they have used. *Use paint to decorate models. *Show independence and resilience and the face of challenge and when trying new activities		*Explore and use a range of materials and begin to be able to talk about their sensory properties *Share their creations, explaining the process they have used *Show independence and resilience and the face of challenge and when trying new activities
Y1 & Y2	Making Toys Homes Picnics	*Understand where a range of fruit and vegetables come from * To understand and use basic principles of a healthy and varied diet to prepare dishes, including the importance of 5-a-day * Follow simple recipe instructions, presented in images * Use hands to prepare a range of fruits/vegetables – squeeze, peel, scoop * Use bridge & claw grip to cut foods safely into large pieces * Start to develop an understanding of food hygiene: rinse fruit to remove dirt, wash hands and clean areas.	*Explore a range of existing freestanding structures in the school and local environment * Know how to make freestanding structures stronger, stiffer and more stable. * Generate ideas based on simple design criteria * Develop, model and communicate their ideas through talking and drawings. * Plan key steps in construction * Select and use tools, skills and techniques, explaining their choices. * Select new and reclaimed materials and to build their structures. * Use simple decorative techniques suitable for the structure they are creating for aesthetic appeal. * Evaluate their product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.	*Explore and use sliders and levers. * Understand that different mechanisms produce different types of movement. * Explore a range of existing books and everyday products that use simple sliders and levers. * Generate ideas based on simple design criteria * Develop, model and communicate their ideas through drawings and mock-ups with card and paper. * 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. * Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	
Y3 & Y4	Desk Organisers Food Miles Shakespeare Festival	*To know how to use appropriate equipment and utensils to prepare and combine food. * Develop preparation skills by cutting, chopping grating ingredients into similar sizes * To know about a range of fresh and processed ingredients appropriate	*Develop and use knowledge of how to construct strong, stiff shell structures. * Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. * Investigate and evaluate a range of existing shell structures including the	* Understand and use lever and linkage mechanisms. * Distinguish between fixed and loose pivots. * Investigate and analyse books and, where available, other products with lever and linkage mechanisms.	

		for their product, and whether they are grown, reared or caught. * To know where their food comes from and how location impacts cost and the environment * Measure quantities of ingredients * Work safely with hot food * Further develop hygiene practise by preparing and tidying cooking areas	materials, components and techniques that have been used. Use scoring, cutting out and assembling using pre-drawn nets. *Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. * Use finishing techniques suitable for the product they are creating. * Test and evaluate their own products against design criteria and the intended user and purpose.	* Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. * Use annotated sketches and prototypes to develop, model and communicate ideas. * Select from and use appropriate tools with some accuracy to cut, shape and join paper and card. * Select from and use finishing techniques suitable for the product they are creating. * Investigate and evaluate a range of products including the materials, components and techniques that are used. * Test and evaluate their own products against design criteria and the intended user and purpose. * Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.	
Y5 & Y6	Celebrating Seasonality Fairground Rides Cams	*Know how to use heat sources to prepare and cook food. * Understand about seasonality and this impact cost and sustainability * Write a step-by-step recipe, including ingredients, equipment & utensils * Explore ingredients that can be added in a basic recipe * Use a cook's knife to cut away the 'peel' from a 'hard' item * Slice and dice foods safely Cut, slice or dice ingredients into equal sized pieces *Roast different vegetables in a little oil, knowing when they are cooked * Boil vegetables knowing when they are cooked		*Understand that mechanical and electrical systems have an input, process and an output. * Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. * To understand and use electrical systems in their product * To apply their understanding of computing to program, monitor and control their products. * Explore relevant products that have pulleys, gears or switches * Generate innovative ideas by carrying out research * Develop and communicate ideas through discussion, annotated drawings, exploded drawings and drawings from different views. * Formulate step-by-step plans and, if appropriate, allocate tasks within a team.	

				* Select from and use a range of tools and equipment to make products that that are accurately assembled and well finished. Work within the constraints of time, resources and cost. * Compare the final product to the original design specification. * Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.	

Northway Community Primary School – Key Learning Overview –DESIGN & TECHNOLOGY – CYCLE 2

	TOPIC	COOKING & NUTRITION	STRUCTURES	MECHANISMS	TEXTILES
EYFS	Expressive Art and Design Personal, Social and Emotional Development	*Share their creations, explaining the process they have used. *Show independence and resilience and the face of challenge and when trying new activities. *Describe in simple terms how and why to make healthy food choices. Describe the simple sensory properties of some foods.	*Use junk modelling to build simple freestanding structures *Use paint to decorate products *Strengthen models using modrock *Share their creations, explaining the process they have used. *Use paint to decorate models. *Show independence and resilience and the face of challenge and when trying new activities		*Explore and use a range of materials and begin to be able to talk about their sensory properties *Share their creations, explaining the process they have used *Show independence and resilience and the face of challenge and when trying new activities
Y1 & Y2	Puppets Packet lunches Vehicles	*Taste and evaluate a range of products to generate design criteria and communicate these ideas through drawings. *Follow recipe instructions and make changes based on preference. *Measure foods using cups and measuring spoons *Drain away liquid from foods chop foods into evenly sized chunks *Use an upright grater. *Arrange food on a dish by hand. *Help to wash up items and tidy area *Evaluate ideas and finished products against design criteria.		*Generate initial ideas and simple design criteria through talking and using own experiences; e.g. it should be able to fit a small teddy, it should be able to move independently for 0.5m when pushed by user *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. *Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	*Use appropriate language to describe colours, media, equipment and textures *Generate, develop, model and communicate ideas as appropriate through talking, drawing and templates to design a functional and appealing product for a chosen user and purpose *Use a running stitch. Explain how to thread a needle and have a go. *Gain confidence in stitching two pieces of fabric. *Use glue to appliqué shapes to product in order to create a character/face *Evaluate their ideas throughout
Y3 & Y4	Worry Monsters Pneumatics Healthy alternatives	*Taste and evaluate a range of existing products based on flavour and nutritional value *Weigh accurately using weighing scales *Slice and dice foods safely into equal sized pieces/portions *Sauté vegetables *Wash fruit and vegetables. *Clean area and wash up. *Chop, grate, deseed and arrange food		*Generate realistic and appropriate ideas and their own design criteria through discussion, focusing on the needs of the user. *Select from and use appropriate tools with some accuracy to cut and join materials and components. *Select from and use finishing techniques to ensure the product is aesthetically pleasing. *Evaluate their ideas and products against their own design criteria and suggest next steps.	*Produce annotated sketches, prototypes, final product sketches and pattern pieces. *Plan the main stages of making. *Begin to move from a basic running stitch (KS1) to a back stitch. *Thread a needle *Stitch two pieces of fabric together, considering seam allowance and ensuring stitch is hidden. *Test and evaluate their product against the original design criteria.

		*Carry out sensory evaluations of own and existing products, suggesting next steps.			
Y5 & Y6	Bridges Cases and holders Farm to Fork	*Understand the farm to fork journey for minced beef and how they can make ethically conscious choices when purchasing meat products *Use a heat sauce to cook meat *Peel, slice and dice safely. *Boil different vegetables knowing when they are cooked *Explore ingredients that can be added in a basic recipe such as seeds, garlic, vegetables. Consider texture, taste, appearance and smell. *Thoroughly wash and scrub cooking equipment and surfaces. *Evaluate the final product with reference back to affordability and seasonality	*Generate, develop and model innovative ideas, through discussion, prototypes and annotated sketches *Formulate a clear plan, including a step-by-step list of what needs to be done and lists of resources to be used. *Select from and use appropriate tools to accurately measure, mark out, cut, shape and join construction materials *Critically evaluate their products against their design specification and suggest improvements		*Design purposeful, functional, appealing products for the intended user. *Develop, model and communicate ideas through talking, drawing, templates. *Develop their stitching skills, progressing from a basic running and back stitch. *Stitch two pieces of fabric together, considering seam allowance and ensuring stitch is hidden. *Use a range of decoration techniques. *Test and evaluate products with intended user.