

DESIGN TECHOLOGY

PROGRESSION DOCUMENT

Highfield Community Primary School

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	Design Technology Progression	
Three and Four Year-Olds	Personal, Social, Emotional Development	• Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.
	Physical Development	• Use large-muscle movements to wave flags and streamers, • paint and make marks. • Choose the right resources to carry out their own plan. • Use one-handed tools and equipment, for example, making snips in paper with scissors.
	Understanding the World	• Explore how things work.
	Expressive Art and Design	• Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Develop their own ideas and then decide which materials to use to express them. • Create closed shapes with continuous lines, and begin to use these shapes to represent objects.
Reception	Physical Development	• Progress towards a more fluent style of moving, with • developing control and grace. • Develop their small motor skills so that they can use a range of tools competently, safely and confidently. • Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
	Expressive Art and Design	• Explore, use and refine a variety of artistic effects to express • their ideas and feelings. • Return to and build on their previous learning, refining ideas • and developing their ability to represent them. • Create collaboratively, sharing ideas, resources and skills.

ELG	Physical Development	• Use a range of small tools, including scissors, paintbrushes and cutlery.
	Expressive Art and Design	• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Share their creations, explaining the process they have used.

Class	Autumn	Spring	Summer
Beech	Food – fruit salad	Textiles – puppets	Mechanics – Moving picture book
Maple	Food – Stir fry	Construction – Royal carriage	Materials – Waterproof jacket
Pine	Mechanics – Roman chariot	Construction – Waterproof structure	Food – Empanadas
Cherry	Textiles – Clothing for a stone age man	Materials – Viking Longships	Food – Feteer Meshaltet
Sycamore	Textiles – Tudor purse	Construction - Anderson shelters	Food – Spring rolls
Willow	Mechanics – Moving vehicles	Food – Pita breads	Construction - Traditional game

Design					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Design products that have a clear purpose and an intended user.	Use software to design. Design products that have a clear purpose and an intended user. Make products, refining the design as work progresses.	Design with purpose by identifying opportunities to design. Make products by working efficiently (such as by carefully selecting materials).	Use software to design and represent product designs. Make products by working efficiently (such as by carefully selecting materials). Refine work and techniques as work progresses, continually evaluating the product design.	Evaluate the design of products so as to suggest improvements to the user experience. Make products through stages of prototypes, making continual refinements. Create innovative designs that improve upon existing products.	Design with the user in mind, motivated by the service a product will offer (rather than simply for profit). Ensure products have a high quality finish, using art skills where appropriate. Use prototypes, cross-sectional diagrams and computer aided designs to represent designs. Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.

Cooking and Nutrition					
Year 1 (Disciplinary)	**Year 2 (Disciplinary)**	**Year 3 (Disciplinary)**	**Year 4 (Disciplinary)**	**Year 5 (Disciplinary)**	**Year 6 (Disciplinary)**
Fruit Salad Cut, peel or grate ingredients safely and hygienically. Assemble ingredients	**Stir fry** Cut, peel or grate ingredients safely and hygienically. Measure or weigh using measuring cups or electric scales. Assemble or cook ingredients.	**Empanadas** Prepare ingredients hygienically using appropriate utensils. Measure ingredients Assemble or cook ingredients (controlling the temperature of the oven or hob if cooking).	Feteer meshaltet Prepare ingredients hygienically using appropriate utensils. Measure ingredients to the nearest gram and millilitre accurately. Follow a recipe. Assemble or cook ingredients (controlling the temperature of the oven or hob if cooking).	**Spring rolls** Understand the importance of the correct storage and handling of ingredients. Measure accurately Demonstrate a range of baking and cooking techniques . Create and refine recipes including ingredients, methods, cooking time and temperature.	**Pitta breads** Understand the importance of the correct storage and handling of ingredients (using knowledge of microorganisms). Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. Demonstrate a range of baking and cooking techniques . Create and refine recipes including ingredients, methods, cooking time and temperature.
Year 1 (Substantive)	***Year 2 (Substantive)***	***Year 3 (Substantive)***	**Year 4 (Substantive)**	***Year 5 (Substantive)***	***Year 6 (Substantive)***
To know that all food comes from plants and animals.	*To know where in the world some foods originate from.*	*To know that a healthy diet is made up of a variety and balance of different food and drink,*	*To know about seasonality and know where and how a variety of ingredients*	*To know about seasonality, how this may affect the food availability*	*To know food that is grown (such as pears, wheat and potatoes), reared (such as poultry*

To explain where in the world some foods originate from. *To know that food has to be farmed, grown elsewhere (e.g. home) or caught*	*To know that everyone should eat at least 5 portions of fruits and vegetables a day.* *To know the five different groups on the Eatwell Guide.* *To know how to use kitchen equipment safely.* *To know that we need to wash ours hand before preparing food.*	*as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes.* *To know that some foods only grow in certain seasons.*	*are grown, reared, caught and processed.* *To know that to be active and healthy, nutritious food and drink are needed to provide energy for the body.*	*To know that food is processed into ingredients that can be eaten or used in cooking* *To know a range of cooking techniques - grilling, frying and boiling.*	*and cattle) and caught (such as fish) in the UK, Europe and the wider world.* *To know that foods contain different substances, such as protein, that are needed for health.* *To know a range of cooking techniques - grilling, griddling, frying and boiling.*
Year 1 Vocabulary	**Year 2 Vocabulary**	**Year 3 Vocabulary**	**Year 4 Vocabulary**	**Year 5 Vocabulary**	**Year 6 Vocabulary**
fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients,	*fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, frying, cooking, pan, oil, chop, grate, slice, dice*	*Names of fruits and vegetables* *name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, pastry, filling, baking, cooking,*	*Names of fruits and vegetables* *name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen,*	*Names of fruits and vegetables* *Ingredients, Vegetables, spring rolls, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, fry, grate, slice, dice,*	*ingredients, yeast, dough , flour, wholemeal, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat,*

			tinned, processed, seasonal, harvested healthy/varied diet		*roll out, shape, sprinkle, pita breads, bread,*

Textiles (Make)					
Year 1 (Disciplinary)	***Year 2* (Disciplinary)**	***Year 3* (Disciplinary)**	**Year 4 (Disciplinary)**	***Year 5* (Disciplinary)**	***Year 6* (Disciplinary)**
<u>Puppets</u> Shape textiles using templates. Select the most appropriate techniques to decorate textiles**.**	N/A	N/A	**<u>Clothing for a stone age person</u>** Create objects (such as a cushion) that employ a seam allowance. Join textiles with back stitch Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as soft decoration for comfort on a cushion.	**<u>Tudor purse</u>** Create objects (such as a cushion) that employ a seam allowance. Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). Use the qualities of materials to create suitable visual and	*N/A*
Year 1 (Substantive)	***Year 2 (Substantive)***	***Year 3 (Substantive)***	**Year 4 (Substantive)**	***Year 5 (Substantive)***	***Year 6 (Substantive)***
To know how to join two materials together.	N/A	*N/A*	*To know what seam allowance is.* *To know how to create a seam allowance.* *To know how to create a back stitch*.	*To know how to create seam allowance.* *To know what a back stitch and running stitch looks like.*	*N/A*

				To know how to create a back stitch and running stitch. *To know how to join two materials together.*	
Year 1 Vocabulary	**Year 2 Vocabulary**	**Year 3 Vocabulary**	**Year 4 Vocabulary**	**Year 5 Vocabulary**	**Year 6 Vocabulary**
Materials Joining Gluing cutting	N/A	N/A	Seam allowance Back stitch Joining Materials Textiles	Seam allowance Back stitch Joining Textiles	N/A

Construction (Make)					
Year 1 (Disciplinary)	**Year 2 (Disciplinary)**	**Year 3 (Disciplinary)**	**Year 4 (Disciplinary)**	**Year 5 (Disciplinary)**	**Year 6 (Disciplinary)**
N/A	**<u>Royal Carriage</u>** Use materials to practise drilling, screwing, nailing and gluing materials to make and strengthen products.	**<u>Waterproof structure</u>** Cut materials accurately and safely by selecting appropriate tools. Measure and mark out to the nearest millimetre. Apply appropriate and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Select appropriate joining techniques. Use suitable techniques to construct products or repair items. Strengthen materials using suitable techniques.	N/A	**<u>Anderson shelters</u>** Develop a range of practical skills to create products (such as cutting and gluing)	**<u>Traditional board game</u>** Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).

Year 1 (Substantive)	***Year 2 (Substantive)***	***Year 3 (Substantive)***	**Year 4 (Substantive)**	***Year 5 (Substantive)***	***Year 6 (Substantive)***
N/A	*To know which tools to select.* To know how to strengthen a product. To know the best way to join materials/structures together.	*To know the best way to join two materials together.*	N/A	*To know what methods are best to stick different materials together.* *To know which materials will hold a weight.*	*To know the best method to join wood together.*
Year 1 Vocabulary	**Year 2 Vocabulary**	**Year 3 Vocabulary**	**Year 4 Vocabulary**	**Year 5 Vocabulary**	**Year 6 Vocabulary**
N/A	Gluing Cutting Material Sticking Strong	*Material* *Tools* *Millimetre* *Strength* *Apply*		*Strength* *Material* *Strong* *Sturdy* *Construct*	*Drilling* *Dowling* *Joining* *Tools* *Materials* *Screwing* *Nailing*

Materials (Make)					
Year 1 (Skills)	**Year 2 (Skills)**	**Year 3 (Disciplinary)**	**Year 4 (Disciplinary)**	**Year 5 (Disciplinary)**	**Year 6 (Disciplinary)**
N/A	**<u>Waterproof jacket</u>** Cut materials safely using tools provided. Measure and mark out to the nearest centimetre. Demonstrate a range of cutting and shaping techniques. Demonstrate a range of joining techniques.	N/A	**<u>Viking Long ships</u>** Cut materials accurately and safely by selecting appropriate tools. Measure and mark out to the nearest millimetre. Apply appropriate and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Select appropriate joining techniques.	**<u>Anderson Shelters</u>** Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).	N/A
Year 1 (Substantive)	***Year 2 (Substantive)***	***Year 3 (Substantive)***	**Year 4 (Substantive)**	***Year 5 (Substantive)***	***Year 6 (Substantive)***
	To know which materials are waterproof.		*To know how to read a millimetre.*	*To know which materials are waterproof.*	

	To know which materials are not waterproof. *To know which tools to use to cut materials.*		*To know the best way to join certain materials together.*	*To know which materials will withhold wind and rain.* *To know how to join materials together.*	
Year 1 Vocabulary	**Year 2 Vocabulary**	**Year 3 Vocabulary**	**Year 4 Vocabulary**	**Year 5 Vocabulary**	**Year 6 Vocabulary**
N/A	*Material* *Cutting* *Waterproof*		*Millimetre* *Joining* *Cutting* *Sticking* *Slot* *Cut out* *Material* *Waterproof*	*Waterproof* *Materials* *Fabric* *Precise* *Corrugated* *Iron* *Metal* *Shelter*	

Mechanics					
Year 1 (Skills)	***Year 2 (Skills)***	***Year 3 (Disciplinary)***	**Year 4 (Disciplinary)**	***Year 5 (Disciplinary)***	***Year 6 (Disciplinary)***
<u>Moving picture book</u> Create products using levers, wheels and winding mechanisms.		**<u>Roman chariot</u>** Use scientific knowledge of the transference of forces to choose appropriate mechanism for a product (such as levers, winding mechanisms, pulleys and gears).	N/A	N/A	**<u>Moving vehicles</u>** Convert rotary motion to linear using cams. Use innovative combination of electronics and mechanics in product designs.
Year 1 (Substantive)	***Year 2 (Substantive)***	***Year 3 (Substantive)***	**Year 4 (Substantive)**	***Year 5 (Substantive)***	***Year 6 (Substantive)***
To know what parts of the book can move. *To know how parts of the book move.*		*To know about the push and pull force.* *To know what a pulley is used for.* *To know what a lever is used for.*			*To know how cams create movements.* *To know that electrical systems have an input, process and output.*
Year 1 Vocabulary	**Year 2 Vocabulary**	**Year 3 Vocabulary**	**Year 4 Vocabulary**	**Year 5 Vocabulary**	**Year 6 Vocabulary**
Moving, picture, book, story, traditional tale, lever, slider, pivot, wheel, push, pull, direction, up, down, left, right, evaluate, product.		*Pulley* *Gears* *Push* *Pull* *Force* *Mechanisms* *Chariot*			*Cams* *motion* *Motors* *Push* *Pull* *Force* *Vehicle* *Electrical* *Lever* *Pulley*

Evaluate					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Explore objects and designs to identify likes and dislikes of the designs.	Explore objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Explore how products have been created.	Improve upon existing designs, giving reasons for choices.	Disassemble products to understand how they work. Improve upon existing designs, giving reasons for choices. Identify some of the great designers in all areas of study to generate ideas for design.	Create innovative designs that improve upon existing products.	Evaluate the design of products so as to suggest improvements to the user experience. Create innovative designs that improve upon existing products. Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.