



West Heselton C of E Primary School
Design and Technology Curriculum Progression

	EYFS	KS1		KS2			
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing	<p>Nursery: Can I use words to convey what they want to make.</p> <p>Reception: Can I use words and drawings to convey what they want to design/make.</p>	<p>Can I use pictures and words to convey what they want to design/make.</p> <p>Can I select pictures to help develop ideas. Use mock-ups e.g. recycled material trial models to try out their ideas.</p>	<p>Can I propose more than one idea for their product.</p> <p>Use ICT to communicate ideas.</p> <p>Can I use drawings to record ideas as they are developed.</p> <p>Can I add notes to drawings to help explanations</p>	<p>Can I develop more than one design or adaptation of an initial design.</p> <p>Can I plan a sequence of actions to make a product.</p> <p>Can I think ahead about the order of their work.</p> <p>Can I propose realistic suggestions as to how they can achieve their design ideas.</p>	<p>Can I record the plan by drawing using annotated sketches.</p> <p>Can I use prototypes to develop and share ideas.</p> <p>Can I consider aesthetic qualities of materials chosen.</p> <p>Can I use CAD where appropriate.</p>	<p>Can I record ideas using annotated diagrams.</p> <p>Can I use models, kits and drawings to help formulate design ideas.</p> <p>Can I sketch and model alternative ideas.</p> <p>Can I decide which design idea to develop.</p>	<p>Can I plan the sequence of work.</p> <p>Can I devise step by step plans which can be read/followed by someone else.</p> <p>Can I use exploded diagrams and cross-sectional diagrams to communicate ideas.</p>
Making	<p>Nursery: Can I select materials from a limited range.</p> <p>Can I use trial and error to learn the process of making models.</p> <p>Reception: Can I select materials from a limited range.</p> <p>Can I explain what they are making. Use simple tools to support making models.</p> <p>Can I use a range of building and recycled materials to try out their ideas.</p>	<p>Can I select materials from a limited range.</p> <p>Can I explain what they are making.</p> <p>Can I name the tools they are using.</p>	<p>Can I discuss their work as it progresses.</p> <p>Can I select and name the tools needed to work the materials.</p> <p>Can I explain which materials they are using and why.</p>	<p>Can I select from a range of tools for cutting, shaping, joining and finishing.</p> <p>Can I use tools with accuracy.</p> <p>Can I select from materials according to their functional properties.</p> <p>Can I use appropriate finishing techniques.</p>	<p>Can I prepare pattern pieces as templates for their design.</p> <p>Can I select techniques for different parts of the process.</p>	<p>Can I select from, accurately and safely use a wide range of tools.</p> <p>Can I cut accurately and safely to a marked line.</p>	<p>Can I make prototypes. Use researched information to inform decisions.</p> <p>Can I produce detailed lists of ingredients / components/materials and tools. Refine their product – review and rework/improve.</p>
Evaluating	<p>Nursery: Can I identify when a product they have made is finished and talk about it.</p> <p>Reception:</p>	<p>Can I explore existing products and investigate how they have been made (including teacher-made examples).</p> <p>Can I talk about their design as they develop</p>	<p>Can I decide how existing products do/do not achieve their purpose.</p> <p>Can I discuss how closely their finished product meets their own design criteria.</p>	<p>Can I investigate similar products to the one to be made to give starting points for a design.</p> <p>Can I research needs of user.</p> <p>Can I decide which design idea to develop.</p>	<p>Can I draw/sketch existing products in order to analyse and understand how products are made.</p> <p>Can I identify the strengths and weaknesses of their design ideas in</p>	<p>Can research and evaluate existing products.</p> <p>Can I consider user and purpose.</p> <p>Can I consider and explain how the finished product could be</p>	<p>Can I identify the strengths and weaknesses of their design ideas.</p> <p>Can I report using correct technical vocabulary.</p> <p>Can I discuss how well the finished product meets the design criteria having</p>

	<p>Can I say what they like and do not like about items they have made.</p> <p>Can I talk about what went well and what they would do differently next time to make it even better.</p>	<p>and identify good and bad points.</p> <p>Can I say what they like and do not like about items they have made and say why.</p>		<p>Can I consider how the finished product could be improved.</p> <p>Can I discuss how well the finished product meets the user's design criteria.</p> <p>Can I investigate key events in design and technology.</p>	<p>relation to purpose/user.</p> <p>Can I consider and explain how the finished product could be improved.</p> <p>Can I investigate key individuals in design and technology.</p>	<p>improved related to design criteria.</p> <p>Can I investigate key events and individuals in design and technology.</p>	<p>tested on/ discussed outcomes with the user.</p> <p>Can I understand how key people have influenced design in a variety of contexts.</p>
Technical Knowledge	<p>Nursery: Can I investigate using a range of materials and their uses in making different models.</p> <p>Reception: Can I investigate how to make a simple structure more stable and stiffen some materials.</p>	<p>Can I show how to stiffen some materials.</p> <p>Do I know how to make a simple structure more stable.</p> <p>Do I know some different ways of making things move in a 2-D plane.</p> <p>Can I attach wheels to a chassis using an axle.</p>	<p>Can I start to use technical vocabulary.</p> <p>Can I cut out shapes which have been created by drawing round a template.</p> <p>Can I join materials in a variety of ways.</p> <p>Can I decorate using a variety of techniques.</p>	<p>Can I use appropriate technical vocabulary for materials and their properties.</p> <p>Can I strengthen frames with diagonal struts.</p> <p>Can I use electrical systems such as switches bulbs and buzzers.</p> <p>Can I use linkages to make movement larger or more varied.</p>	<p>Do I understand seam allowance.</p> <p>Can I prototype a product.</p> <p>Can I incorporate a circuit into a model.</p> <p>Can I use electrical systems such as switches bulbs and buzzers.</p> <p>Can I use linkages to make movement larger or more varied.</p>	<p>Can I use mechanical systems such as cams gears and pulleys.</p> <p>Do I understand pattern layout with textiles.</p> <p>Can I sew on buttons and make loops.</p> <p>Can I cut strip wood, dowel</p>	<p>Can I use mechanical systems such as cams, gears and pulleys</p> <p>Use the correct vocabulary appropriate to the project.</p> <p>Can I join materials using appropriate methods.</p> <p>Can I create 3D textile products using pattern pieces</p> <p>Can I cut strip wood, dowel, square section wood accurately to 1mm.</p>
Cooking and Nutrition	<p>Nursery: Can I talk about differences between foods.</p> <p>Can I combine different ingredients, then cooling or heating (cooking) them.</p> <p>Do I know to wash hands before preparing food.</p> <p>Reception: Do I notice changes to food as they are prepared, combined, heated or cooled.</p> <p>Do I know to wash hands and clean work surfaces.</p>	<p>Can I group familiar food products e.g. fruit and vegetables.</p> <p>Do I know that fruit grows on trees and bushes.</p> <p>Do I know how to safely cut and chop food. Do I know about the need for a variety of foods in a diet.</p> <p>Do I know to wash hands, wash fruits and clean work surfaces before working.</p>	<p>Can I cut, peel, grate and chop a range of ingredients.</p> <p>Can I work safely and hygienically and understand why this is necessary.</p> <p>Do I know about the Eatwell Plate. Can I understand where food comes from.</p> <p>Do I know differences between fruit and vegetables.</p> <p>Do I know to wash hands, vegetables and clean work surfaces before and after working.</p>	<p>Can I understand the principles of a healthy and varied diet?</p> <p>Can I describe how food ingredients come together?</p> <p>Do I understand seasonality and know where some ingredients are grown, reared, caught and processed?</p>	<p>Can I follow instructions/recipes.</p> <p>Can I create recipes that are 'healthy'. Begin to understand the food groups on the Eatwell Plate.</p> <p>Do I know to wash hands, tie hair back and clean work surfaces before and after working.</p> <p>Cooking methods: roasting, baking</p>	<p>Can I understand and can apply the principles of a healthy, varied diet?</p> <p>Can I show that I am safe and hygienic in handling and preparing food?</p> <p>Can I prepare and cook a variety of predominantly savoury dishes?</p> <p>Can I understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed?</p>	<p>Do I understand and apply the principles of a healthy and varied diet.</p> <p>Do I know where and how ingredients are reared and caught, grown and processed.</p> <p>Do I understand seasonality.</p> <p>Can I choose ingredients to support healthy eating choices when designing their food products.</p> <p>Cooking methods: steam, boil, stew, braise</p>

	Do I know we can get food from plants and animals.						
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Vocabulary	Textiles						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Join, sew, stick	Pattern, mark out, decorate, running stitch, needle, fabric	Template, quality, suitable, features, dye, over stitch, design, fray, mock-up, seam	Fastening, compartment, zip, finishing technique, function, prototype, back stitch, felted, woven, knitted, bonded	Aesthetics, seam allowance, pinning, embroidery, back stitch, blanket stitch, cross stitch	Specification, tacking, working drawing, clasp, pinking shears, design criteria, hem, reinforce, stem stitch, satin stitch, tie dye	Applique, annotate, evaluate, innovation, functionality, renewable, authentic, chain stitch
Electrical Systems							

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		switch, battery holder, crocodile clip	User, fault, toggle switch, insulator, conductor	Series circuit, connection, push-to-make switch, push-to-break switch, innovative, appealing, control box, input device, output device, system	Parallel circuit, light emitting diode, monitor, flowchart, design specification, reed switch, tilt switch	Light dependent resistor, interface control, micro switch, latching switch

Mechanisms

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Wheels & Axles:</u> Car, wheel, pull, push</p>	<p><u>Wheels & Axles:</u> Axle, fixed, free, design, make, cutting, joining, hacksaw, vice, dowel, body, cab, shaping</p> <p><u>Slider & Leavers:</u> Mechanism, lever, slider, slot, pivot, guide/bridge, masking tape, fastener, pull, push, down, straight, work, design, evaluate, purpose.</p>	<p><u>Leavers & linkages:</u> Loose pivot, fixed pivot, system, input, process</p> <p><u>Pneumatics:</u> components, fixing, attaching, tubing, syringe, plunger, split pin, paper fastener, pneumatic system</p>	<p><u>Leavers & Linkages:</u> output, linear, rotary, reciprocating,</p> <p><u>Pneumatics:</u> input movement, process, output movement, control, compression, pressure, inflate, deflate, pump, seal, air-tight</p>	<p><u>Leavers & Linkages:</u> innovative, appealing, linkage, oscillating</p> <p><u>Pneumatics:</u> linear, rotary, oscillating, reciprocating</p>	<p><u>Pulleys and Gears:</u> Pulley, gear, driver, follower, rotation, motor, belt, spindle, motor, circuit, switch, ratio.</p> <p><u>Cams:</u> cam, snail cam, off-centre cam, peg cam, pear shaped cam, follower, axle, shaft, crank, handle, housing, framework</p>	<p><u>Pulleys and Gears:</u> Transmit, annotated drawings, exploded diagrams, functionality.</p> <p><u>Cams:</u> rotation, rotary motion, oscillating motion, reciprocating motion, annotated sketches, exploded diagrams mechanical system, input movement, process, output movement</p>

Structures

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Freestanding Structures:</u> Cut, fold, join</p>	<p><u>Freestanding Structures:</u> Cut, fold, join, fix, weak, strong, structure, base, underneath, thicker, thinner, corner, point, straight, curved, rectangle, cube, cuboid, cylinder</p>	<p><u>Shell Structures</u> Shell, structure, net, marking out, material, joining, three dimensional, stiff</p> <p><u>Shell Structures, including computer aided design:</u> shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex</p>	<p><u>Shell Structures</u> Assemble, prism, vertex, breadth, capacity, scoring.</p> <p><u>Shell Structures, including computer aided design:</u> edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble</p>	<p><u>Shell Structures</u> marking out, scoring, shaping, tabs, adhesives.</p> <p><u>Shell Structures, including computer aided design:</u> joining, assemble, accuracy, material, strong, reduce, reuse, recycle, corrugating, ribbing, laminating</p>	<p><u>Frame Structures:</u> Reinforce, triangulation, stability, temporary, permanent.</p>	<p><u>Frame Structures:</u> prototype, innovation, functional, design brief.</p>

Food

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p><u>Preparing Fruit & Vegetables:</u> Cut, taste, fruit, vegetable</p>	<p><u>Preparing Fruit & Vegetables:</u> Fruit, vegetables, soft, juicy, crunchy, sticky, smooth, sharp, crisp, sour hard, flesh, skin, seed pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, tasting, arranging</p>	<p><u>Healthy & Varied Diet:</u> name of products, names of equipment, utensils, techniques and ingredients, texture, taste, sweet, sour, hot, spicy, appearance, chop, core, grate</p>	<p><u>Healthy & Varied Diet:</u> Texture, taste, appearance, preference, greasy, moist, fresh, savoury,</p>	<p><u>Healthy & Varied Diet:</u> hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested</p>	<p><u>Celebrating Culture & Seasonality:</u> Ingredients, yeast, dough, wholemeal, unleavened, baking soda, spice, herbs, carbohydrate, sugar, fat, protein, vitamins, nutrients, gluten, allergy, intolerance, savoury, seasonality, pour, mix, kneed, whisk, beat, combine, fold, rubbing in</p>	<p><u>Celebrating Culture & Seasonality:</u> Ingredients, yeast, dough, wholemeal, unleavened, baking soda, spice, herbs, carbohydrate, sugar, fat, protein, vitamins, nutrients, gluten, allergy, intolerance, savoury, seasonality, pour, mix, kneed, whisk, beat, combine, fold, rubbing in</p>