



Halton Community Combined School

Skills Progression Map

Curriculum Area: DT

	Characteristics of effective Learning	Early Learning Goals
EYFS	- I can explore different materials freely in order to develop my ideas, how to use them and what to make. - I can develop my own ideas and decide which materials to use to express them. - I can join different materials and explore different textures. - I can express a point of view when discussing a DT project. - I can explore, use and refine a variety of effects. - I can refine my ideas and build on them. - I can create collaboratively sharing ideas, resources and skills. - I can articulate my ideas and thoughts. - I can work out problems, organise thinking/ activities, explain how things work and why they might happen.	- I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. - I can share creations, explaining the process I have used. - I can try new activities, show independence, resilience and perseverance when faced with DT challenges. - I can offer my own ideas and use recently introduced vocabulary. - I can offer explanations for why things might happen. - I can use a range of small tools- scissors, paintbrushes etc.
DT Projects	Preschool	Reception
Our Early Years follows the 'In the moment' planning approach- planning is in response to children's interests and needs. Coverage will be included retrospectively.	- Joining and fixing, cutting skills, weaving skills 3-D modelling- recyclable materials - Construct using different materials i.e. making nests for owls using leaves and twigs - Construct using different types of bricks, connecting objects - Water toys- pipes and boat construction - Playdough - Woodwork	- Joining and fixing, cutting skills, weaving skills 3-D modelling- recyclable materials (rockets, aliens) - Bird feeders - Paper chains - Shadow puppets - Hedgehog bread rolls - Jam tarts

<u>Skills Focus</u>	Year One	Year Two	Year 3	Year 4	Year 5	Year 6
Generating ideas -designing	- I can design appealing products for a particular user based on simple design criteria - I can generate initial ideas and design criteria through my own experiences - I can develop and communicate these ideas through my own experiences - I can develop and communicate these ideas through talk and drawings and mock ups where relevant.	- I can generate ideas based on simple design criteria and my own experiences, explaining what I could make. - I can develop, model and communicate my ideas through talking, mock ups and drawings.	- I can generate realistic ideas through discussion and design criteria for an appealing functional product fit for purpose. - I can use annotated sketches, prototypes and pattern pieces; communication technology, such as web-based recipes to develop ideas.	- I can generate realistic ideas through discussion and design criteria for an appealing functional product that are fit for purpose, aimed at particular groups or individuals. - I can use annotated sketches and appropriate information and communication technology, such as web-based recipes to develop and communicate ideas. - I can generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams.	- I can generate innovative ideas through research including surveys, interviews, questionnaires and discussion with peers to develop a design brief and criteria for a design specification. - I can design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. - I can develop and communicate ideas through discussion, annotate drawings, and where appropriate computer aided design.	- I can use research using surveys, interviews, questionnaires and web-based resources to develop a design specification for a range of functional products. - I can develop a simple design specification to guide the development of my ideas and products taking account of constraints; time, resources and cost. - I can generate and develop innovate ideas and share and clarify ideas through discussion. - I can communicate ideas through annotated sketches, pictorial representations of electrical circuits or circuit diagrams.
Making	- I can select and use simple utensils, tools and equipment to perform a job e.g. peel, cut, slice, squeeze, grate, chop safely. - I can mark out, cut, join, shape and finish	- I can plan by suggesting what to do next. - I can select and use tools equipment, skills and techniques to perform practical tasks explaining their choices.	- I can plan the main stages of making. - I can select and use a range of appropriate utensils, tools and equipment with some accuracy.	- I can order the main stages of making. - I can select and use appropriate tools to measure, mark out, cut, score, shape and combine with some accuracy.	- I can produce detailed lists of equipment and fabrics relevant to their tasks. - I can write a step by step plan, including a list of resources required.	- I can formulate a step by step plan to guide marking, listing tools, equipment, materials and components. - I can competently select from and use appropriate tools to accurately measure,

	using paper and card. I can select from a range of ingredients and materials according to their characteristics to create a chosen product.	I can use simple finishing techniques suitable for their product.		- I can explain their choice of materials according to functional properties and aesthetic qualities. - I can select from and use materials and components, including ingredients construction and electrical components according to their function and properties.	I can select from and use a range of appropriate utensils, tools and equipment accurately to measure and combine ingredients, materials and resources.	mark, cut and assemble materials, and securely connect electrical components to produce reliable, functional products. I can use suitable finishing and decorative techniques for my product.
Evaluating	- I can taste, explore and evaluate a range of products. - I can evaluate ideas throughout and evaluate finished products against design criteria.	- I can explore a range of existing products related to my design criteria. - I can evaluate my product by discussing how well it works in relation to the purpose, the use and whether it meets the original design criteria.	- I can investigate a range of 3D textile products, ingredients and lever and linkage products relevant to the product. - I can test my product against the original design criteria. - I can evaluate the ongoing work and the final product with reference to the design criteria and the views of others.	- I can investigate and evaluate a range of products including the ingredients, materials, components and techniques used. - I can test and evaluate my own products against design criteria and purpose. - I can evaluate my ideas and products against my design criteria and identify the strengths and areas for improvement.	- I can investigate and analyse products linked to my final product. - I can compare the final product to the original design specification and record the evaluations. - I can test the products and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose. - I can consider the views of others to improve their work.	- I can continually evaluate and modify the working features of the product to match the initial design specification. - I can critically evaluate my products against their design specification, intended user and purpose, identifying strengths and areas for development and carrying out appropriate tests. - Test the system to demonstrate its effectiveness for purpose.
Vocabulary	planning, investigating, design, evaluate, make, user, purpose, ideas, product	investigating, planning, design, make, evaluate, user, purpose, ideas,	purpose, design, model, evaluate, annotated sketch, investigate, label, drawing, function,	evaluating, design brief, design criteria, innovative, prototype, user, purpose, function,	design decisions, functionality, innovative, authentic, design specification, design	Innovative, design specification, design brief, prototype, annotated sketch,

		design, criteria, purpose, function	planning, design criteria, appealing	appealing, planning, annotated sketch, sensory evaluations	brief, research, evaluate, mock-up, prototype, appealing,	research, functional, mock-up, evaluate, functionality.
<u>Knowledge</u>	Year One	Year Two	Year 3	Year 4	Year 5	Year 6
Food	- I can understand where a range of fruit and vegetables come from e.g. farmed or grown at home. - I can understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the 'eat well plate'. - I can use technical and sensory vocabulary relevant to the project.	- I can understand where a range of fruit and vegetables come from e.g. farmed or grown at home. - I can understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the 'eat well plate'. - I can and use technical and sensory vocabulary relevant to the project.	- I can use appropriate equipment and utensils to prepare and combine food. - I can name a range of fresh and processed ingredients appropriate for my product and whether they are grown, reared or caught. - I can use relevant technical and sensory vocabulary appropriately.	- I can use appropriate equipment and utensils to prepare and combine food. - I can name a range of fresh and processed ingredients appropriate for my product and whether they are grown, reared or caught. - I can use relevant technical and sensory vocabulary appropriately.	- I can use utensils and equipment including heat sources to prepare and cook food. - I can talk about seasonality in relation to food products and the source of different food products. - I can use relevant technical and sensory vocabulary.	- I can Know use utensils and equipment including heat sources to prepare and cook food. - I can talk about seasonality in relation to food products and the source of different food products. - I can use relevant technical and sensory vocabulary.
Vocabulary	Fruit and vegetable names, equipment and utensils, sensory vocabulary (soft, juicy, crunchie, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients).	Fruit and vegetable names, equipment and utensils, sensory vocabulary (soft, juicy, crunchie, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients).	Name of products, equipment, utensils, techniques and ingredients. Texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal,	Name of products, equipment, utensils, techniques and ingredients. Texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal,	Ingredients, yeast, dough, bran, flour, wholemeal, unleavened, 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,	Ingredients, yeast, dough, bran, flour, wholemeal, unleavened, 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,

			harvested, healthy and varied diet.	harvested, healthy and varied diet.	roll out, shape, sprinkle, crumble.	roll out, shape, sprinkle, crumble.
Structures	- Know how to make freestanding structures stronger, stiffer, and more stable. - Know and use technical vocabulary relevant to the project.		- Develop and use knowledge of how to construct strong, stiff shell structures. - Develop and use knowledge of nets and cubes and cuboids/ more complex 3D shapes. - Know and use technical vocabulary relevant to the project.		- Understand how to strengthen, stiffen and reinforce 3-D frameworks. - Know and use technical vocabulary relevant to the project.	
Vocabulary	Cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder.		Shell structures, three-dimensional (3-D), shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision.		Frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent.	
Textiles	- Understand how simple 3-D textile products are made, using a template to create two identical shapes. - Understand how to join fabrics using different techniques (running stitch, over stitch, stapling, glue). - Explore different finishing techniques. - Know and use technical vocabulary relevant to the project.			- Know how to strengthen, stiffen, and reinforce existing fabrics. - Understand how to securely join two pieces of fabric together. - Understand the need for patterns and seam allowances.	- Produce a 3-D textile project from a combination of accurately made pattern pieces, fabric shapes and different fabrics. - Understand how fabrics can be strengthened, stiffened and reinforced where appropriate. - Know and use technical vocabulary relevant to the project.	
Vocabulary	Joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish.		Fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam allowance, needles, thread.		Seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, names of textiles, fastenings used, pins, needles, thread.	
Mechanisms /mechanical systems	- Explore and use wheels, axle holders. - Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project.	- Explore and use sliders and levers. - Understand that different mechanisms produce different types of movements. - Know and use technical vocabulary relevant to the project.	- Understand and use lever and linkage mechanisms. - Distinguish between fixed and loose pivots. - Know and use technical vocabulary relevant to the project.		- 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.	

					Know and use technical vocabulary relevant to the project.	
Vocabulary	Vehicle, wheel, axle, axle holder, chassis, body, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials	Slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards	Mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output, linear, rotary, oscillating, reciprocating.		Pulley, drive, belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output.	
Electrical systems				- Understand and use electrical systems in their products linked to science coverage. - Apply understanding of computing to program and control their products. - Know and use technical vocabulary relevant to the project.		- Understand and use electrical systems in their products linked to science coverage. - Apply their understanding of computing to program, monitor and control their products. - Know and use technical vocabulary relevant to the project.
Vocabulary				Series circuit, fault, connection, toggle, switch-push/open/ close, battery/holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input, device, output device.		Light dependent resistor (LER), light emitting diode (LED), USB cable, wire, control, program, input/ output device, series circuit, parallel circuit, types of switches (reed, toggle).