

D & T SKILLS PROGRESSION	EY	Year 1/ 2	Year 3/4	Year 5/ 6
<p>Generate ideas Developing ideas Explaining ideas Planning Communicating design ideas</p>	<ul style="list-style-type: none"> Anticipates repeated sounds, sights and actions, e.g. when an adult demonstrates an action toy several times. Shows interest in toys with buttons, flaps and simple mechanisms and beginning to learn to operate them. Seeks to acquire basic skills in turning on and operating some ICT equipment. Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car. Knows how to operate simple equipment, e.g. turns on CD player and uses remote control. 	DEVELOPING, PLANNING AND COMMUNICATING IDEAS		
		<ul style="list-style-type: none"> Generate and talk about ideas by handling materials and components- handle/investigate/disassemble and discuss familiar products e.g. toys. Draw on their own and others ideas. Plan by suggesting what to do next, and how to progress as their ideas develop. Communicate their ideas verbally and draw finished articles. 	<ul style="list-style-type: none"> Generate, develop and explain ideas for products to meet a range of needs (recognise specific purposes or users). Disassemble and investigate everyday products to see how they fit their purpose. Plan what they are going to do. Communicate design ideas in different ways (e.g. verbally, written, in a labelled diagram). Identify how finished product will look and the 'underneath' works 	<ul style="list-style-type: none"> Generate ideas by collecting and using information, from a number of sources, including ICT based sources. Look at some mechanical products to see how they function and meet the user's needs. Take user's views into account. Clarify ideas generated, considering intended purpose. Consider safety and reliability. Plan what they have to do, suggesting a sequence of actions and alternatives if needed. Work from detailed plans. Communicate design ideas in different ways (e.g. verbally, written, in a scaled labelled diagram) as these develop, considering use and purpose.
<p>Selecting tools and techniques</p>	<ul style="list-style-type: none"> Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. Knows that information can be retrieved from computers 	WORKING WITH TOOLS, EQUIPMENT, MATERIALS AND COMPONENTS TO MAKE QUALITY PRODUCTS		
		<ul style="list-style-type: none"> Use/select tools and materials with help, e.g. sandpaper, hole punch or drill. Select from a limited range e.g. wheel axles and wood strip. 	<ul style="list-style-type: none"> Select appropriate tools and techniques. Suggest alternative ways to make their product (with help if needed). 	<ul style="list-style-type: none"> Select appropriate tools and techniques. Suggest alternative ways to make their product, by reviewing their plan if the first attempt is not successful. Use prototypes to test ideas
<p>Qualities of materials</p>	<ul style="list-style-type: none"> Completes a simple program on a computer. Uses ICT hardware to interact with age-appropriate computer software. Early Learning Goal 	<ul style="list-style-type: none"> Explore the sensory qualities of materials. 	<ul style="list-style-type: none"> Explain how to use simple materials (what they are suitable for). 	<ul style="list-style-type: none"> Explore the qualities of materials and how to use them. Select the correct tools to use with different materials.
<p>Cutting, shaping and finishing</p>		<ul style="list-style-type: none"> Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. 	<ul style="list-style-type: none"> Measure, mark and cut soft materials with help. Shape paper and card by cutting with scissors. Join materials with adhesives and tape. Saw wood with a gents saw/backsaw. Glue wood. Use hand drill or hole punch. Make an object with simple moving parts. 	<ul style="list-style-type: none"> Measure, mark, cut out and shape a range of materials, e.g. using saws and sand paper. Use tools independently with greater accuracy, control and awareness of conservation e.g. bench hooks and mitre blocks, electric components (such as bulbs and buzzers), wire strippers, staplers, bearings and axle holders, cardboard triangles etc. Assemble, join and combine components with some accuracy.
<p>Food and hygiene</p>		<ul style="list-style-type: none"> Mix and prepare simple cooked and uncooked foods involving very limited choices. Use simple equipment, e.g. spoons, cutters, bowls. 	<ul style="list-style-type: none"> Use simple recipe choices with widening choices relating to the consumer. Use simple tools, e.g. hand whisk, rolling pins etc. Measure ingredients. Be aware of different dietary requirements 	<ul style="list-style-type: none"> Weigh and measure accurately (time, dry ingredients and liquids). Apply the rules for basic food hygiene and other safe practises, e.g. hazards relating to the use of ovens. Research products, e.g. which bird feed is best? Which biscuits are the healthiest? Etc.

		EVALUATING PROCESS AND PRODUCTS		
<p>Reflect on progress Identify improvements Meeting purpose</p>		<ul style="list-style-type: none"> • Talk about their ideas, saying what they like and dislike. • Identify what they could have done differently to improve their work in the future. 	<ul style="list-style-type: none"> • Reflect on their progress identifying ways they could improve their products. • Identify where evaluation has led to improvements. 	<ul style="list-style-type: none"> • Reflect on their progress identifying ways they could improve their products. • Check their work as it develops and modify their plans. • Carry out appropriate tests before making any improvements, including testing and evaluating products and information sources.

KNOWLEDGE AND UNDERSTANDING OF MATERIALS AND COMPONENTS

<p>Mechanisms and control</p>		<ul style="list-style-type: none"> • Use wheels and axles (pushed through). • Use construction kits. • Identify how toys can be made to move (push/pull). • Make moving joints using paper fasteners, wood etc. • Use programmable toys (e.g. Roamer). • Pop-ups and sliders 	<ul style="list-style-type: none"> • Use syringes for pneumatics. • Use simple mechanisms, e.g. pneumatics, levers • Give a series of commands (Roamer). • Use of egg boxes to create repeating sequence to control lights/motors • Levers in pop up books using split pins 	<ul style="list-style-type: none"> • Use simple mechanisms, e.g. pulleys, cams, cogs. Attach to motors for electrical control • Begin to use hydraulics. • Design ICT controlled mechanisms- use computer to control programs and equipment. FLOWOL. • Use computer to operate switch and devise simple programs to control own models.
<p>Structures</p>		<ul style="list-style-type: none"> • Make box models, puppets, cards, masks etc. • Strengthen box models, and card/wood constructions. • Make joints that allow movement, e.g. axles • Use of construction kits 	<ul style="list-style-type: none"> • Use construction kits to test for strength. • Investigate how structures can fail when loaded, and stabilise structures to withstand greater loads. • Understand different structures types, shell/frame 	<ul style="list-style-type: none"> • Construct regular free standing 3D frames -bridges • Use techniques for reinforcing and strengthening structures. • Use construction kits and building instructions to identify how structures are stabilised and strengthened.
<p>Textiles</p>		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Create seams and applique by working with a widening, but limited, choice of materials and techniques e.g. running stitch, back stitch, blanket, overstitch. • Use patterns, either elf-generated or templates. • Use stitches, embellishments and fabric to enhance design. 	<ul style="list-style-type: none"> • Use different but appropriate ways to join materials, e.g. glue, pins, press studs, Velcro, various stitches, buttons etc.
<p>Electrical circuits</p>		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Explore batteries and bulbs. • Use simple switches to achieve a functional result. 	<ul style="list-style-type: none"> • Switch motors on/off and reverse the motor. • Control electrical circuits with ICT (e.g. use computer to operate switch – see above).