



## DT Landgate School Long Term Planning KS4 2020-2022

<b>Key Stage 4</b>	<p><b>Key stage 4 Intent:</b></p> <p>Our intent is for learners in D&amp;T is to build their confidence, their knowledge and their practical capability so they can solve practical problems by generating design solutions and manufacturing quality items using ingredients, components, fabrics, raw materials such as wood, metal, plastic and new and smart materials. Our aim is to provide a curriculum that provides learners with opportunities develop life skills on how to investigate a design problem, research relevant details, present design solutions as drawings/computer images/ three dimensional outcomes and work within a safe working environment. In Key Stage 4 learners should be encouraged to work more independently using tools and materials while continuing to utilise and build upon skills and linking knowledge acquired in previous Key Stages.</p>		
	<p><b>Key Stage Opportunities:</b></p> <p>Throughout Key Stage 4 learners will investigate, design, make and evaluate projects within the following areas:</p> <p>Materials Products Design and nutrition</p> <p><b>Learners are also provided learning opportunities to:</b></p> <ul style="list-style-type: none"> <li>• Work towards/ achieve Accreditation: AQA Unit Awards: Entry Level Unit and Pre – Entry Level unit awards (AQA) based on GCSE specs</li> <li>• Develop and apply an awareness of health and safety</li> <li>• Become increasingly confident in taking risks and exploring different tools and materials</li> <li>• Develop skills, knowledge and understanding of food handling, preparation and storage including food safety and hygiene</li> </ul>		
	<b>Year A 2020-2021</b>	<b>Year B 2021-2022</b>	
<b>FO</b>	<b>Key Focus:</b>	<b>FOOD PREPARATION AND HYGIENE</b>	<b>CATERING FOR SPECIFIC FUNCTIONS</b>

	<p><b>Key Skills and knowledge:</b></p>	<p>See accreditation units:  <b>Entry Level: Basic food hygiene (unit 108245)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>•recognise at least three causes of food poisoning</li> <li>•identify three ways food poisoning can be prevented in a food environment</li> <li>•identify four or more rules for personal hygiene in a food environment</li> <li>•wash their hands in a way appropriate for preparing to handle food</li> <li>•identify at least four rules for storing food safely</li> <li>•identify four rules for general kitchen hygiene.</li> </ul> <p><b>Pre-Entry Level: Basic skills used in food preparation (unit 72008)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• collect together equipment needed to prepare different foods</li> <li>• follow visual and verbal instructions to learn cutting, peeling, chopping, slicing, spreading, grating</li> <li>• practise and acquire skills for cutting, peeling, chopping, slicing, spreading, grating</li> </ul> <p>use these skills when preparing food for a meal</p>	<p>See accreditation units:  <b>Entry Level: Preparing food for a specified function (unit 5 10937)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• participate in a discussion about the types of functions at which food is served</li> <li>• choose one function from a given list</li> <li>• identify one food dish that will be served at the specified function</li> <li>• give one reason why the dish is suitable for the function</li> <li>• produce a list of ingredients needed to make the chosen dish</li> <li>• calculate the portion size of the dish</li> <li>• plan a simple flow chart for making the dish</li> <li>• prepare and cook the planned dish</li> <li>• work out the quantities needed to make the dish serve twelve people</li> <li>• design a menu card which includes three dishes for the specified function which would attract a target audience</li> </ul> <p><b>Pre-Entry Level: Catering for a specific function (unit 70760)</b></p> <p>Experience:</p> <ul style="list-style-type: none"> <li>• washing hands prior to preparing food</li> <li>• taking part in a group cookery session to prepare three dishes for a specific function, eg a children's birthday party or a vegetarian lunch</li> <li>• the different tastes, textures, appearance and temperature of prepared dishes</li> </ul> <p>Demonstrate the ability to:  maintain hold of a kitchen utensil when physical help is withdrawn</p>
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<b>Focus 2</b>	<b>Key Focus:</b>	<b>TEXTILES – MAKING CLOTHING</b>	<b>INVESTIGATING MATERIALS TO MAKE A PRODUCT</b>
	<b>Key Skills and knowledge:</b>	<p>See accreditation units:  <b>Entry Level – Textiles- making an item of clothing</b>            Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• discuss Investigate and research existing items of clothing.</li> <li>• attempt a 2D drawing or sketch to design their item</li> <li>• select a basic pattern for an item of clothing</li> <li>• use dressmaking pins to safely pin the pattern to the material</li> <li>• use scissors with precision to cut out the material following the pattern</li> <li>• thread a needle with appropriately coloured cotton thread</li> <li>• use simple tacking stitches to sew the pieces of fabric together</li> <li>• use running stitches to hem the pieces as required</li> <li>• sew the material together in the correct places using running and over-locking stitches</li> <li>• attach a clothing label.</li> <li>• decorate or customise item of clothing</li> </ul> <p><b>Pre-Entry Level: Textiles - making a basic clothing item with support</b>            Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• make a choice to select material or fabric</li> <li>• make a choice to select thread colour</li> <li>• mark out a pattern on fabric with support (eg using chalk and a template with support)</li> <li>• use scissors cut out a pattern for a simple</li> </ul>	<p>See accreditation units:  <b>Entry Level - Making a working mechanical model- levers, pulleys, gears and cams (unit 10983)</b>            Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• discuss and recognise the need for a mechanism</li> <li>• identify where a simple mechanical system could be used</li> <li>• design two possible models</li> <li>• choose one and give a reason for the choice</li> <li>• develop the design using sketches</li> <li>• attempt the construction of the model</li> <li>• complete the working model</li> <li>• evaluate the working model</li> <li>• suggest a possible improvement to the model</li> <li>• suggest an alternative to the mechanical system used</li> </ul> <p><b>Pre-Entry Level: Exploration of materials (unit 1) (85751)</b>            Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• begin to assemble components provided for a design and technology activity, eg placing bricks together</li> <li>• contribute to activities by coactively grasping and moving simple tools, eg a glue spreader</li> <li>• explore options within a limited range of materials, eg sorting by colour, shape and size</li> </ul> <p>Experienced:</p> <ul style="list-style-type: none"> <li>• working co-operatively with an adult</li> <li>• following instructions to work coactively with an adult undertaking at least three modules of work in this curriculum area, eg shelters, clocks, slippers and fairgrounds</li> </ul>

	garment with support <ul style="list-style-type: none"> <li>• insert dressmaking pins with support</li> <li>• use an electric sewing machine with support to sew a simple garment</li> <li>• add a decoration or a fastening with support</li> </ul>	
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	Key Focus:	GRAPHIC PRODUCTS	UPCYCLING
Focus 3	Key Skills and knowledge:	<p>See accreditation units:</p> <p><b>Entry Level - Graphic and product design: design and make food packaging</b></p> <p>Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• Research at least 4 existing types of food packaging</li> <li>• Design own logo or aesthetic design for food packaging</li> <li>• Choose material to create food packaging.</li> <li>• Attempt at least four simple 2d drawings or sketches to design packaging</li> <li>• Use basic instruments complete a neat and recognisable 3d drawing of packaging</li> <li>• Apply colour and/or shading effectively to enhance the drawings</li> <li>• Use scissors with precision to cut out the material</li> <li>• Use a joining method to assemble packaging</li> <li>• Produce a simple summary and evaluation of their work</li> </ul> <p><b>Pre-Entry Level: Graphic and product design: making food packaging with support</b></p>	<p>See accreditation units:</p> <p><b>Entry Level: Upcycling furniture (unit 108435)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• research upcycling and learn about a successful eco designer</li> <li>• identify the six r's (reduce, rethink, repair, reuse, refuse, recycle)</li> <li>• redesign a piece of furniture to make new furniture</li> <li>• work safely with tools</li> <li>• evaluate the completed work</li> </ul> <p>Experienced:</p> <ul style="list-style-type: none"> <li>• using at least two skills, eg carpentry, woodturning, upholstery, metalwork, computer aided design, painting, moulding plastics, furniture repair and modification</li> <li>• using at least two different ways to fasten materials</li> <li>• recycling and reusing materials</li> <li>• visiting a junk store</li> </ul> <p><b>Pre-Entry Level – Multi-sensory DT-experience upcycling with support (105353)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• tolerate repeated physical contact with at least three different materials</li> <li>• tolerate a sensory exploration of at least three tools, ie paintbrush,</li> </ul>

	<p>Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• design own product logo with support</li> <li>• select material from a range of options</li> <li>• draw a template area on material to be cut with support</li> <li>• use scissor to cut out material needed with support</li> <li>• use colour or decoration to enhance material with support</li> <li>• use joining technique to assemble food packaging with support (eg using glue to join materials)</li> </ul> <p>Experienced:</p> <ul style="list-style-type: none"> <li>• investigate and deconstruct at least 4 types food packaging</li> <li>• test different materials for their suitability with support</li> </ul>	<p>hammer, screwdriver</p> <ul style="list-style-type: none"> <li>• tolerate hand over hand support to complete a small up-cycling task</li> </ul>
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	Key Focus:	SYSTEM CONTROL	APPLIANCES
Focus 4	Key Skills and knowledge:	<p>See accreditation units:  <b>Entry Level - System control - knex renewable energy</b></p> <p>Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• explore knex and building in different ways</li> <li>• research renewable energy resources</li> <li>• draw/sketch a design of a model</li> <li>• build a minimum of 2 working models (e.g.</li> </ul>	<p>See accreditation units:  <b>Entry Level: Designing and making an electric lamp (unit 110017)</b></p> <p>Demonstrate the ability to:</p> <ul style="list-style-type: none"> <li>• evaluate at least one existing lamp product</li> <li>• produce at least one 3d sketch of the intended lamp design</li> <li>• mark out the materials needed to make the lamp using the correct tools and equipment</li> <li>• use cutting tools to correctly cut out all the materials needed to make the lamp</li> </ul>

	<p>solar, wind, hydro)</p> <ul style="list-style-type: none"> <li>• evaluate the models they have made</li> <li>• comment on a peer's model</li> </ul> <p>Show knowledge of</p> <ul style="list-style-type: none"> <li>• Explaining how one model works and present to a group (e.g. Inputs and outputs)</li> </ul> <p><b>Pre-Entry Level: System control - knex renewable energy with support</b></p> <p>Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• experiment with knex pieces</li> <li>• choose renewable power source with support</li> <li>• follow instructions to build knex model with support</li> <li>• attach power source to model with support</li> <li>• observe model working</li> </ul> <p>Experienced:</p> <ul style="list-style-type: none"> <li>• investigating different renewable energy sources with support</li> <li>• test model working in different conditions with support</li> </ul>	<ul style="list-style-type: none"> <li>• apply a suitable finish to the materials</li> <li>• correctly assemble all the parts of the lamp</li> <li>• complete an evaluation of the lamp considering what went well and what could be improved</li> <li>• work safely in a workshop environment with others</li> </ul> <p><b>Pre-Entry Level: Making an electrical sensory light with support</b></p> <p>Demonstrated the ability to:</p> <ul style="list-style-type: none"> <li>• take part in a sensory session which uses at least two electrical appliances for effect</li> <li>• take part in a session where an electrical appliance is used to perform a specific task</li> <li>• take part in at least three activities that use batteries.</li> <li>• make a simple circuit, with support</li> <li>• make choices to choose materials</li> <li>• make a small sensory light with support</li> </ul> <p>Experienced:</p> <ul style="list-style-type: none"> <li>• looking at two uses of electricity in the community</li> <li>• replacing batteries in battery appliances or toys</li> <li>• the main parts of an electrical circuit, eg bulb, wire, plug, battery</li> </ul>
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