# Buttsbury Primary School
# DT Progression Document

| EYFS | Skills Progression | Early Learning Goals (Expressive Arts and Design) |
|---|---|---|
| | • Create collaboratively, sharing ideas, resources and skills.<br>• Use various construction materials to join and build structures.<br>• Develop fine motor skills when drawing, cutting and sticking.<br>• Experiment with colour and materials when designing and making.<br>• Safely use and explore a variety of tools, materials and techniques.<br>• Begin to select tools appropriately.<br>• Share their creations, explaining the process they have used.<br>• Build on previous learning to refine ideas.<br>• Make use of props and materials when role playing characters. | • Creating with Materials<br>• Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function.<br>• Share their creations, explaining the process they have used.<br>• Make use of props and materials when role playing characters in narratives and stories. |

| EYFS Brain Busters (Core Knowledge) | Autumn term | Spring term | Summer term |
|---|---|---|---|
| | BB – In Design and Technology we make things. | BB – We can join materials in different ways. | BB – We use recycled materials for junk modelling. |
| | BB – Construction means to build something | | |
| | BB – Evaluate means you check finished work | | |

| EYFS Vocabulary | Vocabulary used throughout |
|---|---|
| | make<br>cut<br>stick<br>tools<br>mix<br>add<br>template<br>cut<br>accuracy<br>fabric<br>tissue paper<br>materials |

| Year 1 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | To follow simple design criteria to design a product.<br><br>To develop their design ideas through discussion.<br><br>To use simple drawings in the design process.<br><br>To say whether their products are for themselves or other users. | To follow their design when making their product.<br><br>To use tools safely with support. | To explore and identify features of an existing product.<br><br>To say what they like and dislike about an existing product.<br><br>To evaluate their final product against the design criteria.<br><br>To say what they like and dislike about their final product. | To develop use of the running stitch<br><br>To develop use of sliders | To measure ingredients (under adult supervision)<br><br>To combine ingredients through mixing<br><br>To use cutters to create shapes<br><br>To follow hygiene procedures when working with food. |

| Year 1 Brain Busters (Core Knowledge) | Food - Christmas biscuits | Mechanisms - Moving Easter cards | Textiles - Bookmarks |
|---|---|---|---|
| | BB1 – When following a recipe, you need to measure ingredients | BB1 – Mechanisms work together to make something move. | BB1 – Design means to plan what my product will look like. |
| | BB2 – We need to wash our hands before we prepare food. | BB2 – A slider can move up and down or side to side. | BB2 – A running stitch goes over and under. |
| | BB3 – We have to mix ingredients together | BB3 – A design is a plan. | BB3 – A running stitch can be used for decoration |

| Year 1 Vocabulary | Food - Christmas biscuits | Mechanisms - Moving Easter cards | Textiles - Bookmarks |
|---|---|---|---|
| | ingredients<br>mixing bowl<br>whisk<br>knead<br>rolling pin<br>bake<br>oven<br>decorate<br>dough | slider<br>lever<br>push<br>pull<br>up<br>down | over<br>under<br>running stitch<br>material<br>fabric<br>needle |

| Year 2 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | To explain why we design.<br><br>To develop a design based on a products criterion.<br><br>To reflect on their research to inform their design.<br><br>To use drawings and labels in the design process.<br><br>. | To explain what they are making and why.<br><br>To be able to choose appropriate tools and materials.<br><br>To describe which tools to use and why.<br><br>To use tools safely. | To explore and evaluate a range of existing products.<br><br>To evaluate products based on personal choices.<br><br>To make comparisons between existing products.<br><br>To evaluate their ideas throughout the learning process.<br><br>To evaluate their final product against the design criteria.<br><br>To consider what they would change if they made their product again. | Use pivots to enable movement in a product<br><br>Develop tighter stitches when sewing | To explain why we follow hygiene procedures when working with food.<br><br>Use a knife to spread<br><br>Start to recognise healthy and unhealthy foods<br><br>Start to recognise different food groups |

| Year 2 Brain Busters (Core Knowledge) | Food - Healthy wraps | Textiles - Hand puppets | Mechanisms - Moving monsters |
|---|---|---|---|
| | BB1 – Healthy food is good for your body. | BB1 – Puppets are used to tell stories. | BB1 – A lever is something that turns on a pivot. |
| | BB2 – We need to eat a balanced diet | BB2 – A running stitch can be used to join material together | BB2 – linkage is a system of levers that are connected by pivots. |
| | BB3 – We can use knives to spread fillings | BB3 – Pull the thread all the way through to make a tighter stitch | BB3 – We can create pivots using split pins |

| Year 2 Vocabulary | Food - Healthy wraps | Textiles - Hand puppets | Mechanisms - Moving monsters |
|---|---|---|---|
| | taste<br>healthy<br>unhealthy<br>hygiene<br>spread<br>wrap | material<br>sewing<br>needle<br>thread<br>knot<br>stitch | pivot<br>linkage<br>lever<br>split pin<br>push<br>pull |

| Year 3 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | Create designs using annotated sketches.<br><br>Generate simple prototypes to evaluate and practise skills. | Make suitable choices from a wider range of tools and familiar materials.<br><br>Safely measure, mark out, cut, assemble and join with some accuracy. | Investigate and analyse existing products and those he/she has made, considering a wide range of factors.<br><br>Consider the strengths and weaknesses of designs and prototypes and how they relate to each other and prior knowledge.<br><br>Cultural links of the dream catcher. | Use a range of existing skills and media that are familiar to the children.<br><br>Begin to develop methods of joining, weaving and plaiting.<br><br>Select appropriate fruits and discuss flavour combinations. | Understand that food has to be grown, farmed or caught in Europe and the wider world.<br><br>Use a variety of ingredients to prepare and combine ingredients safely. |

| Year 3 Brain Busters (Core Knowledge) | Dream Catchers | Stone Age Jewellery | Smoothies |
|---|---|---|---|
| | BB1: Dreamcatchers originate from Native America. | BB1: Stone Age Jewellery would be made from shells, bones and animal teeth. | BB1: A smoothie is a blended drink containing fruit. |
| | BB2: The webs catch bad dreams. | BB2: They would use animal sinew (tendons) instead of string. | BB2: Some store bought smoothies contain a lot of sugar. |
| | BB3: The holes let the good dreams through, which travel down to the baby from the feathers. | BB3: They use tools to twist and plait. | BB3: Some smoothies contain milks or grains to change the texture and taste. |
| | BB4: The string on the dreamcatcher acts as a ladder for the dream to travel up or down. | BB4: The Stone Age people were resourceful and nothing went to waste. | BB4: Citrus fruits are sour, others are sweet |
| | BB5: They are made from yarn. | BB5: They wore jewellery to show their importance. | BB5: You need a blender to create the right smoothie consistency. |

| Year 3 Vocabulary | Dream Catchers | Stone Age Jewellery | Smoothies |
|---|---|---|---|
| | charm<br>indigenous<br>string/yarn<br>woven<br>feathers<br>net or web<br>ribbon<br>prototype<br>beads | clay<br>join<br>twist<br>plait | blender<br>consumer<br>smoothie<br>fruit<br>juice<br>target audience<br>carton |

| Year 4 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | Create designs using cross-sectional diagrams.<br><br>Introduce step by step plans for food production.<br><br>Develop more complex prototypes and use successes as a base for final product. | Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience.<br><br>Use techniques which require more accuracy to cut, shape, join and finish his/her work eg. Applying buttons/ zips for aesthetically and functional purpose. | Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them.<br><br>Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended purpose.<br><br>Gerald Ford and the mass production of the model T | Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas<br><br>Understand and use electrical systems and gearing in products.<br><br>Read and follow recipes which involve several processes, skills and techniques.<br><br>Explore a range of stitch types and their use (e.g. Running, over, back) | Talk about the different food groups and name food from each group.<br><br>Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active. |

| Year 4 Brain Busters (Core Knowledge) | Buggies | Bread | Money Containers |
|---|---|---|---|
| | BB1: A chassis is the frame of a buggy. | BB1: Bread was first discovered in the Stone age. | BB1: A seam is where two pieces of fabric are joined together. |
| | BB2: Weight and strength are properties of a material. | BB2: Yeast is added to make bread rise. | BB2: Running stitch is a popular style of stitch. |
| | BB3: Wood is a good material to build a buggy. | BB3: Bread can be sweet or savoury. | BB3: Backstitch creates a solid line of stitching. |
| | BB4: A design specification lists criteria that a successful product must meet. | BB4: Kneading is when we squeeze the dough together. | BB4: A prototype is an early sample. |
| | BB5: A prototype is an example model. | BB5: Proving is when the dough is allowed to rise before baking. | BB5: Product evaluation assesses suitability. |

| Year 4 Vocabulary | Buggies | Bread | Money Containers |
|---|---|---|---|
| | friction<br>axle<br>gears<br>motor<br>chassis<br>cross-section<br>material properties | bread<br>recipe<br>flour<br>kneading<br>temperature<br>rise<br>prove | overstitch<br>container<br>sew<br>back stitch<br>purse<br>running stitch |

| Year 5 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | Create designs using exploded diagrams. Produce step by step plans to guide manufacturing/ food production.<br><br>Demonstrating application of knowledge for materials, tools, techniques and flavour combinations.<br><br>Create and use more technically developed prototypes within own work. | Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.<br><br>Make careful and precise measurements so that joins, holes and openings are in exactly the right place. | Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product.<br><br>Use his/her knowledge of requirements/ abilities/ materials related to the period to further explain the effectiveness of existing products and products he/she have made.<br><br>The roles of people in professional kitchen. | Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable<br><br>Understand how mechanical systems such as levers, gearing or pulleys create movement.<br><br>Select appropriate ingredients and use a wide range of techniques to combine them. | Understand seasonality and the advantages of eating seasonal and locally produced food.<br><br>Understand the main food groups and the different nutrients that are important for health.<br><br>Use information on food labels to inform choices |

| Year 5 Brain Busters (Core Knowledge) | Cranes | Saxon Houses | Ratatouille |
|---|---|---|---|
| | BB1: A crane is a machine that is used to lift heavy objects. | BB1: The Anglo-Saxons made these houses from the natural materials | BB1: Ratatouille is a French vegetable dish. |
| | BB2: The boom is a large lever used to lift an object. | BB2: They used techniques such as thatching and wattle and daub. | BB2: Recipes can feature different methods to make the same dish. |
| | BB3: A counter-weight is used to balance the weight of an object. | BB3: Anglo-Saxon buildings were joined using ropes and knotting or wooden pegs. | BB3: Knives go between the bridge made by the hand. |
| | BB4: Some mechanisms allow a smaller force to have a greater effect. | BB4: Thatching is the layering of materials to direct water off of a roof. | BB4: Nutritional values can be found on the backs of all food packaging. |
| | BB5: The closer an object is to the pivot, the more weight can be lifted. | BB5: Wattle and daub is a woven lattice of wooden strips (wattle) and is covered with a sticky material (daub). | BB5: Ratatouille is a traditional vegetable stew. |

| Year 5 Vocabulary | Cranes | Saxon Houses | Ratatouille |
|---|---|---|---|
| | counter weight<br>weight<br>boom<br>pivot<br>gear<br>crane<br>jib<br>pulley<br>mechanism | profile<br>weave<br>frame<br>thatch<br>knot<br>wattle and daub | roast<br>slice<br>stew<br>dice<br>bridge<br>nutrition |

| Year 6 | Design | Make | Evaluate | Technical Knowledge | Cooking and Nutrition |
|---|---|---|---|---|---|
| | Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, pattern pieces and computer-aided design.<br><br>Generate prototypes to more critically evaluate skills and processes of own and others work. | Use technical knowledge and accurate skills to problem solve during the making process.<br><br>Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately. | Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work<br><br>Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities.<br><br>CCL – Art Christopher Wren architecture. | Understand how to use more complex mechanical and electrical systems.<br><br>Use knowledge of existing stitches and repetition to create patterns.<br><br>Continue to develop safe methods of preparing and cooking food. | Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty.<br><br>Research, plan and prepare and cook a savoury dish, applying his/her knowledge of ingredients and his/her technical skills |

| Year 6 Brain Busters (Core Knowledge) | Cross Stitch | Salsa | Electronic Game |
|---|---|---|---|
| | BB1: Evidence of cross-stitch trace back to the 6th century in Egypt. | BB1: The ingredients for salsa dip originate from all over the world. | BB1: Operation and Buzz Wires are examples of electronic games. |
| | BB2: Cross-stitches use a range of stitches: full stitch/cross-stitch, half-stitch, running stitch and back-stitch to create their craft. | BB2: A product can change (ingredients, packaging, price) depending on the brand. | BB2: Electronic games have a circuit that enables lights and sounds to work. |
| | BB3: Half stitches on cloth have been dated at 3000 -5000 BC. | BB3: The main ingredients are tomatoes, onions and garlic. | BB3: A prototype is a basic model of the final product. |
| | BB4: Binka is a type of materials used, that has holes to guide the crafter | BB4: Recipes can be modified according to personal preferences. | BB4: Testers are given prototypes to ensure the product works effectively and identify modifications. |
| | BB5: Cross-stitch patterns are used to aid the cross-stitcher. | BB5: Products are marketed towards a specific target audience. | BB5: Electronic games are designed with a target audience in mind. |

| Year 6 Vocabulary | Cross Stitch | Salsa | Electronic Game |
|---|---|---|---|
| | embroidery<br>binka<br>cross-stitch<br>eye<br>half-stitch | aroma<br>appearance<br>modify<br>consistency<br>market | electronic<br>audience<br>design brief<br>cell<br>wires<br>bulb<br>buzzer |