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| **Little Bowden D&T Curriculum Framework** | | **Research Design Make Evaluate** | Our DT curriculum is carefully organised from EYFS – Year 6 into the six focus areas of learning shown below that will enable the children to develop as designers in the world of technology. Our high-quality design and technology education will engage, inspire and challenge pupils, equipping them with the knowledge and skills to successfully research, design, make and evaluate products that solve real and relevant problems. | | | | | |
|  | **1** | **2** | **3** | **4** | **5** | **6** |
| **Areas of Study** | **Focus Areas** | | | | | |
| Children research ideas. They carry out Focused, Practical Tasks (FPT) and Investigate, Disassemble, Evaluate Activities (IDEAs) which then lead into the Design – Make- Evaluate process.  This process is recorded in their ‘Ideas Books’, alongside developing art skills. | **Textiles** Teaching textiles enables children to develop fine motor skills by cutting, drawing around templates and sewing. It reinforces the skills to follow multi-step instructions and provides opportunities to experience different textiles. | **Structures** Teaching structures that are rigid and stable enable children to understand the basic principles of architecture. Children learn to measure, cut accurately and construct ever more complex structures. Maths in action is seen as they use measuring, scale models and nets to make their products. | **Mechanisms** Teaching mechanisms gives an understanding of how machines work using cams, levers, pulleys, pneumatics, gears and linkages. Assembling mechanisms enables children to see how to plan in 3D. | **Electronic Systems** Teaching electronic systems helps to build on and reinforce the knowledge gained in science, providing practical purposes. It develops understanding of how large class electronic equipment transfers into small circuits and systems. | **Food and Nutrition** Cooking and nutrition involves learning how to prepare food using the principles of nutrition and healthy eating. Practical food preparation, cooking skills and aesthetics of food are key aspects of children’s work when designing and making food products. **One ingredient from each recipe is followed from ‘Farm to Fork’** | **Key individuals and events** Knowing and being inspired by individuals and events in history in each focus area from around the world (now and in the past) and learning from their ideas, shows the developing and ever evolving nature of Design & Technology. |
|  | **EYFS** | Please refer to EYFS curriculum |  |  |  |  |  |  |
|  | **Y1** | Sliders and Levers (PoP)  Our Fabric Faces (Twk – Lesson 3)  Templates and Joining (PoP)  ) | **Spring 2** Our Fabric Faces (Twk – Lesson 3)- To understand how to join different fabrics using different techniques e.g gluing, stitching  ‘  **Summer2**  Templates and Joining (PoP) - To design, make and evaluate a product using fabric joining techniques. |  | **Autumn 2** Sliders and Levers (Pop)  To understand different mechanisms, use different types of movement e.g., simple sliders and levers. |  | **Autumn 1**  Jumping Bean Couscous Salad- **Skills-** claw knife technique, using a lemon squeezer  **Spring 1**  Mini Pitta Pockets  **Skills** – Kneading and shaping dough  **Summer 2**  Berried Treasure  **Skills –** sieving, bridge and claw knife technique |  |
| **Y2** | Skill based unit – sewing  Freestanding Structures (PoP)  Wheels and Axles (PoP) | **Autumn 2**  Skill based unit – sewing  To learn how to use oversew stitch and binka cross stitch. | **Spring 2**  Freestanding Structures (PoP) To know how to make free standing structures stronger, stiffer and more stable. | **Summer 2.**  Wheels and Axles (PoP) To design, make and evaluate a product with axles and wheels. |  | **Autumn 1**  Mini Breakfast Frittatas **Skills**- bridge and claw technique, cracking and beating eggs.  **Spring 1**  Pasta Salad with Roasted Vegetables **Skills** – Bridge and claw, beating ingredients together  **Summer 1**  Kachumbari – Kenyan salad **Skills** – Bridge and claw techniques |  |
| **Y3** | How strong is your ribcage? & Shell structure (PoP)  2D-3D product (PoP)  Levers and Linkages (PoP) | **Autumn 2**  **Design, make and evaluate an over the shoulder pouch for a stone age hunter gatherer to collect food.** | **Spring 2**  **To design, make and evaluate a 3D shape which will protect a tea cake from being squashed., using their knowledge of how to construct strong, stiff shell structures.**  **(Science- linked to the ribcage)** | **Summer 2**  **To design, make and evaluate a pop -up page to illustrate part of the story, ‘Cakes in Space’ which includes a lever or linkage.** |  | **Autumn 1**  Fruit and Muesli Breakfast Pots Skills- Using scales, cups and spoons to measure, claw knife technique and squeezing a lemon  **Spring 1**  Leek and Potato Soup Skills- bridge and claw technique, peeling, using a jug to measure.  **Summer 1**  Butternut and Thyme Scones Skills- scooping, rubbing fat into flour, making a dough, beating an egg. |  |
| **Y4** | Canals and Rivers Trust Explorers) - Bridges  Switches (PoP) Light up bookmarks  Pneumatics (PoP) |  | **Autumn 2**  Design, make and evaluate a bridge.  - Focused practical task  Investigating different types of bridges including beam, arch and cantilever. Investigating thickness of material and shapes to help stiffen and strengthen bridge structure.  -Use FPT knowledge to design a bridge which allow a canal boat to travel underneath it and support the weight of a car going over it. Group challenge. | **Summer 2**  Design make and evaluate a Jack in a box  -focused practical task- assemble the systems using syringes, tubing, balloons and plastic bottles and using pneumatics kit  - select one method to design and make their own Jack in a box using a ready- made net e.g., tea bag box. Consider how pneumatic construction is secured for stability. | **Spring 2**  Design and make a light up bookmark  -Focused practical task – Handmade switches• make a variety of switches by using simple classroom materials e.g., card, corrugated plastic, aluminium foil, paper fasteners and paper clips. Make switches that operate in different ways.  Design and make a light up bookmark using a cell battery cell battery and copper tape with a switch. | **Autumn 1**  Ratatouille –Skills  Bridge and claw technique, crushing garlic, tearing herbs.  **Spring 1**  Spicy Chickpea Pot – Skills- bridge and claw knife techniques, peeling ginger, measuring with spoons.  **Summer 1**.  Chocolate and Courgette Muffins – skills- grating, creaming fat and sugar, folding in flour. | Isambard Kingdom Brunel  The invention of the battery |
| **Y5** | Frame Structures (PoP)  Combining Fabric Shapes (PoP)  Cams (PoP) & Automate Animals (Twk) | **Autumn 2** To learn backstitch technique. | **Spring 2**  To design, make and evaluate a Viking structure using knowledge of how to strengthen, stiffen and reinforce 3-D frameworks. (Pop)  Looking at the houses/ long halls- build a structure for a longboat | **Summer 2**  To design, make and evaluate a cam product which produces movement. (Pop)  Visit Mad World Museum – Stratford Upon on Avon |  | **Autumn 1**  Beetroot, Apple and Onion Chutney- Skills use scales, measuring spoons, jugs. Grating and bridge and claw knife skills.  **Spring 1**  Carrot and Coriander Soup – Skills – bridge and claw knife technique, scissors to snip herbs, jug for measuring.  **Summer 1**  Tuna and Broccoli Pasta Bake – Skills – Bridge and claw knife technique, draining through a colander, grating. | Archimedes  Invention of the wheel |
| **Yr6** | More Complex Switches (PoP)  Pulleys and Gears (PoP)  Enterprise Project-( summer term- children work in groups and choose their own focus area | . |  | **Autumn 2**  Pulleys or Gears (PoP)  To design, make and evaluate a product which uses their knowledge of how gears and pulleys can be used to speed up, slow down or change the direction of movement.  **Summer 2**  **Enterprise project**. Children choose their own focus area (in groups) to reinforce previously learnt knowledge and skills. | **Spring 2**  More Complex Switches (PoP)  To design, make and evaluate a product which uses an electrical system which responds to changes in the environment. | **Autumn 1**  Tomato and Basil Bread – Skills- Make, shape and prove the dough, prepare tomato and basil filling.  **Spring 1**  Berry Breakfast Pancakes – Skills – whisking, cracking and beating an egg, using a jug to measure.  **Summer 1**  Spicy Potato Wedges and Onion Bhajis- Skills- scrub potatoes, cut into wedges, measure spices. | Thomas Edison  Michael Faraday |
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Projects on a Page – (PoP)

Twinkl Plan It (Twk)