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| Year Group | Textiles | Cooking | Building |
| Year 1 | **Key question:** How can we make our classroom beautiful?  **Idea/concept:** Create bunting for the classroom (tearing, cutting, folding, curling, sewing - Binca)  **NC links:**   * Design appealing products for others and themselves based on design criteria. * Select and use a range of materials, tools and equipment to perform practical tasks. | **Key question:** How exciting can sandwiches be?  **Idea/concept:** Sensational Sandwiches! Create healthy sandwiches.  **NC links:**   * Explore and evaluate a range of existing products. * Design purposeful products based on criteria. * Use the basic principles of a healthy and varied diet. * Select from and use a wide range of ingredients. | **Key question:** Can we make a toy move?  **Idea/concept:** Make a moveable toy.  Link to history - How have toys changed over time?  **NC links:**   * Explore and evaluate a range of existing products. * Explore how they can use mechanisms (levers, sliders, wheels, axles) in their products. * Evaluate their ideas and products against design criteria. |
| Year 2 | **Key question:** Why are poppies important?  Link to history - Remembrance Day.  **Idea/concept:** Poppy brooches.  **NC links:**   * Design purposeful products for themselves and others based on design criteria. * Evaluate their ideas and products against design criteria. | **Key question:** What ingredients can we use to make dips?  **Idea/concept:** Delicious dips! Design a recipe and use it to make their own dip.  **NC links:**   * Explore and evaluate a range of existing products. * Understand where food comes from. * Design appealing products based on design criteria. * Select from a range of tools and equipment to perform practical tasks - cutting, chopping, mixing etc. | **Key question:** Why do ships need to be waterproof?  Link to history - The Titanic.  **Idea/concept:** Waterproof models of The Titanic.  **NC links:**   * Generate, develop, model and communicate their ideas through talking, drawing, templates, models and ICT. * Select from and use a wide range of materials according to their characteristics (ie. Waterproof, strong) * Build structures, exploring how they can be made stronger, stiffer and more stable. |
| Year 3 | **Key question:** How can we use stitching to make a pattern?  **Idea/concept:** Cross stitch book marks (Make a gift).  **NC links:**   * Use research and develop design criteria to inform the design of functional, appealing products that are fit for purpose and aimed at particular individuals. * Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work, | **Key question:** What makes Bara Brith fantastic?  **Idea/concept:** Welsh Bara Brith and packaging using ICT.  Links to geography - Wonderful Wales.  **NC links:**   * Investigate and analyse a range of existing products. * Use research and develop design criteria to inform the design of functional, appealing products. * Prepare and cook a variety of dishes using a range of cooking techniques. | **Key question:** Did the Egyptian pyramids have secret chambers and traps?  **Idea/concept:** 3D Egyptian pyramid and sarcophagus with chambers and levers.  Links to history - Ancient Eqyptians.  **NC links:**   * Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional diagrams, prototypes and computer-aided design. * Understand and use mechanical systems in their products eg. pulleys/levers/linkages). |
| Year 4 | **Key question:** Do pillows have to be rectangular?  **Idea/concept:** Create a pillow for a particular individual.  **NC links:**   * Use research to develop design criteria to inform the design of products that are fit for purpose. * Develop ideas through annotated sketches, pattern pieces and computer aided design. * Select from and use a wide range of materials, tools and equipment needed to perform practical tasks. * Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | **Key question:** What do we eat that comes from Greece?  **Idea/concept:** Design a Greek banquet.  Links to history and geography - Greece.  **NC links:**   * Investigate and analyse a range of existing products that originate from Greece. * Know where and how a variety of ingredients are grown. * Understand and apply the principles of a healthy and varied diet. * Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | **Key question:** How did the Romans build their chariots?  **Idea/concept:** Design and make a Roman chariot.  Links to history - Ancient Rome.  **NC links:**   * Use research to develop design criteria to inform the design of products. * Understand how key events in design and technology have helped shape the world. * Select from and use a wide range of tools and equipment to perform practical tasks accurately. * Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. |
| Year 5 | **Key question:** Who created the first teddy bear? (Richard Steiff)  **Idea/concept:** Stuffed toys - Victorian teddy bears.  **NC links:**   * Understand how key individuals in design and technology have helped shape the world. * Use research to inform the design of innovative, functional and appealing products that are fit for purpose. * Generate, develop, model and communicate their ideas through discussion, annotated sketches, pattern pieces and computer aided design. * Select from and use a wider range of materials and components, including construction materials and textiles according to their functional properties and aesthetic qualities. * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. * Evaluate their ideas and products against design criteria and consider the views of others to improve their work. | **Key question:** Which recipe makes the best bread?  **Idea/concept:** Great British bread off.  **NC links:**   * Understand seasonality and know where and how a variety of ingredients are grown and processed. * Investigate and analyse a range of existing products. * Select from and use a wider range of materials and components, including ingredients, according to their properties and aesthetic qualities. * Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. * Evaluate their ideas and products and consider the views of others to improve their work. | **Key question:** How effective was Viking transport to England?  **Idea/concept:** Viking longboat model with levers/mechanisms.  Links to history - The Vikings.  **NC links:**   * Research, generate, develop, model and communicate ideas through use of ICT, discussion, annotated sketches, cross-sectional and exploded diagrams and prototypes. * Select from and use a wider range of materials and components for constructions according to their properties. * Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]. * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. * Test and evaluate their ideas and products and consider the views of others to improve their work. |
| Year 6 | **Key question:** Can we turn old clothes into treasure?  **Idea/concept:** Make do and mend patchwork bag.  Links to history - WW2.  **NC links:**   * Use research to inform the design of innovative, functional and appealing products that are fit for purpose. * Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes, pattern pieces and computer aided design. * Select from and use a wider range of materials and components, including textiles according to their functional properties and aesthetic qualities. * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. * Evaluate their ideas and products against design criteria and consider the views of others to improve their work. | **Key question:** Which food is Mexico famous for?  **Idea/concept:** Design and create a Mexican banquet.  Links to geography - Mexico  **NC links:**   * Investigate and analyse a range of existing products that originate from Mexico. * Research, design and develop a product (banquet and accompanying menu) using computer aided design. * Know where and how a variety of ingredients are grown, reared, caught and processed. * Understand and apply the principles of a healthy and varied diet. * Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | **Key question:** Can we use a simple circuit to create a torch?  **Idea/concept:** Create a torch for Oaklands.  Links to science - electricity and circuits.  **NC links:**   * Investigate and analyse a range of existing products. * Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams and computer-aided design. * Understand and use electrical systems in their products. * Select from and use a wider range of materials and components, including textiles according to their functional properties and aesthetic qualities. * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. * Evaluate their ideas and products against design criteria and consider the views of others to improve their work. |
| **Year 6 stand alone unit.** | **NC link:** Apply their understanding of computing to program, monitor and control their products.  Support from Hi-Impact. | | |