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| **Substantive knowledge**  Our curriculum enables pupils to:   * Understand concepts, themes and genres * Acquire and apply knowledge and skill * Develop vocabulary | | | **Disciplinary knowledge**  Our curriculum supports pupils to:   * Evaluate past and present design and technology * Develop a critical understanding of its impact on daily life and the wider world * Use skills relevant to the design brief * Evaluate the effectiveness of their own and other’s work | |
| **KS2 Tier 2 -  *all children will access KS2 Tier 2 at least once; skills will be developed through different focused tasks in Cycle A and Cycle B. Different focused individuals and events will be taught in Cycles A and B.*** | | | | |
| **Key themes**  **Key vocabulary** | **Food** | **Electrical Systems** | | **Textiles** |
| **Tier 2** | Accessing Prior Learning:  **Can you name ingredients that are grown, reared, caught and processed?**  **Can you identify the different seasons in which British fruits and vegetables are grown?** | Accessing Prior Learning:  **Can you create a simple electrical circuit?** | | Accessing Prior Learning:  **Can you describe different ways to cut, shape, join and finish materials?** |
| Acquiring & Attempting Subject Knowledge:   * Understand and apply the principles of a healthy and varied diet * Select from and use a wider range of materials and components, including ingredients, according to their functional properties and aesthetic qualities * Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques * Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed * Prepare ingredients hygienically using appropriate utensils * Measure ingredients to the nearest gram accurately * Follow a recipe * Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking) | Acquiring & Attempting Subject Knowledge:  Make   * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately * Select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities * Create series and parallel circuits * Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips)   Technical knowledge   * Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors | | Acquiring & Attempting Subject Knowledge:  Make   * Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately * Select from and use a wider range of materials and components, including textiles, according to their functional properties and aesthetic qualities * Understand the need for a seam allowance * Join textiles with appropriate stitching * Select the most appropriate techniques to decorate textiles. |
|  | Across all areas of DT  Design   * Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups * Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design   Evaluate   * Investigate and analyse a range of existing products * Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work | | | |
| **Focus careers** | * Chef * Caterer * Nutritionist * Dietician | * Electrician * Quantity Surveyor * Mechanic * Bricklayer * Graphic Designer * Software Developer * Builder * Architect * Civil Engineer | | Fashion Designer |
| **Cycle A: Key events and individuals** | Delia Smith  Alan Yau | Nikola Tesla  Alexander Graham Bell | | Alexander McQueen  Stella McCartney |
| **Cycle B: Key events and individuals** | Ching He Huang  Jamie Oliver | Thomas Eddison  Hedy Lamarr | | Paul Smith  Ralph Lauren |
|  | Applying Essential Knowledge:  **Can you design, make and evaluate a savoury dish using a range of cooking techniques?** | Applying Essential Knowledge:  **Can you design, make and evaluate a steady-hand game/light-up picture/doorbell, using appropriate tools?** | | Applying Essential Knowledge:  **Can you design, make and evaluate an Anglo-Saxon/Viking banner, shield or flag, using appropriate tools and understanding the need for seam allowance?** |
| Additional Vocabulary | adapt, balance, bitter, carbohydrate, climate, collaboration, cross-contamination, exported, fats, flavour, imported, nutrients, protein, prototype, quantity, salty, seasonal, sensory, sour, sweet, unit of measurement, umami, vegan, vegetarian | AC (alternating current), DC (direct current), amperage, capacitor, circuit board, circuit diagram, electric charge, electrical engineer, electricity supply system, flow of charge, futurist, integrated circuit, inventor, receive, spread-spectrum communications, transmit, wireless communications | | balance, colour, contrast, dots, elements of design, emphasis, garment, form, harmony, image, line, movement, outline, proportion, repetition, rhythm, shape, silhouette, space typography, texture, value, |
| Impact evidence:   * Pupil knowledge * Sketch books * Class floor books * Displays * Finished pieces | | | | |