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| **CURRUCULLUM PROGRESSION GRID: DT** | | | | |
| **LOWER KEY STAGE 2** | | | | |
| **Design** | **Make** | **Evaluate** | **Technical knowledge** | **Cooking and nutrition** |
| **NC Link:**  -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. | **NC Link:**  -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, textiles and ingredients, according to their functional properties and aesthetic qualities. | **NC Link:**  -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;  -Understand how key events and individuals in design and technology have helped shape the world. | **NC Link:**  -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures;  -Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages];  -Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors];  -Apply their understanding of computing to program, monitor and control their products. | **NC Link:**  -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;  -Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. |
| **Theme links**  Cycle A- Autumn 1  Ironman  Cycle B- Summer 1  Enterprise | **Theme links**  Cycle A- Autumn 1  Ironman  Cycle B- Summer 1  Enterprise | **Theme links**  Cycle A- Autumn 1  Ironman  Cycle B- Summer 1  Enterprise | **Theme links**  Cycle B- Summer 1  Enterprise | **Theme links**  Cycle A- Spring 1  Greeks  Cycle B – Spring 2  Spain |
| **Builds on KS1**  **-**Pupils can use their knowledge of existing products and their own experience to help generate their ideas;  -design products that have a purpose and are aimed at an intended user;  -explain how their products will look and work through talking and simple annotated drawings;  -design models using simple computing software; -plan and test ideas using templates and mock-ups; -understand and follow simple design criteria;  -work in a range of relevant contexts, for example imaginary, story-based, home, school and the wider environment. | **Builds on KS1**  **Planning**  -Pupils can with support, follow a simple plan or recipe;  -begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer;  -select from a range of materials, textiles and components according to their characteristics;  **Practical skills and techniques**  -learn to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures;  -use a range of materials and components, including textiles and food ingredients;  -with help, measure and mark out;  -cut, shape and score materials with some accuracy;  -assemble, join and combine materials, components or ingredients;  -demonstrate how to cut, shape and join fabric to make a simple product;  -manipulate fabrics in simple ways to create the desired effect;  -use a basic running stich;  -cut, peel and grate ingredients, including measuring and weighing ingredients using measuring cups;  -begin to use simple finishing techniques to improve the appearance of their product, such as adding simple decorations. | **Builds on KS1**  -Pupils can explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations;  -explain positives and things to improve for existing products;  -explore what materials products are made from;  -talk about their design ideas and what they are making;  -as they work, start to identify strengths and possible changes they might make to refine their existing design;  -evaluate their products and ideas against their simple design criteria;  -start to understand that the iterative process sometimes involves repeating different stages of the process. | **Builds on KS1**  - Pupils can build simple structures, exploring how they can be made stronger, stiffer and more stable;  -talk about and start to understand the simple working characteristics of materials and components;  -explore and create products using mechanisms, such as levers, sliders and wheels. | **Builds on KS1**  -Pupils can explain where in the world different foods originate from;  -understand that all food comes from plants or animals;  -understand that food has to be farmed, grown elsewhere (e.g. home) or caught;  -name and sort foods into the five groups in the Eatwell Guide;  -understand that everyone should eat at least five portions of fruit and vegetables every day and start to explain why;  -use what they know about the Eatwell Guide to design and prepare dishes. |
| **LKS2 Intent**  -Pupils can identify the design features of their products that will appeal to intended customers;  use their knowledge of a broad range of existing products to help generate their ideas;  -design innovative and appealing products that have a clear purpose and are aimed at a specific user;  -Pupils can explain how particular parts of their products work;  use annotated sketches and cross-sectional drawings to develop and communicate their ideas;  -when designing, pupils can explore different initial ideas before coming up with a final design;  -when planning, pupils start to explain their choice of materials and components including function and aesthetics;  -test ideas out through using prototypes;  -Pupils can use computer-aided design to develop and communicate their ideas  develop and follow simple design criteria;  -Pupils can work in a broader range of relevant contexts, for example entertainment, the home, school, leisure, food industry and the wider environment.  **Extended Write:**  **Write a persuasive letter explaining their design for a product**  **Biography Donald Bailey (designed bridge important in WW2** | **LKS2 Intent**  **Plan**  -Pupils can plan with growing confidence, carefully select from a range of tools and equipment, explaining their choices;  -select from a range of materials and components according to their functional properties and aesthetic qualities;  -Pupils can place the main stages of making in a systematic order;  **Practical skills and techniques**  -Pupils learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures;  -use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components;  -with growing independence, measure and mark out to the nearest cm and millimetre;  -Pupils can cut, shape and score materials degree of accuracy  -cut, shape and score materials with some degree of accuracy;  -assemble, join and combine material and components with some degree of accuracy;  demonstrate how to measure, cut, shape and join fabric with some accuracy to make a simple product;  -Pupils can join textiles with an appropriate sewing technique;  begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics.  **Extended Write:**  **Instructions of how they have made their iron man**  **Story based on their own iron man**  **Creating an advert** | **LkS2 Intent**  -Pupils can explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose;  explore what materials/ingredients products are made from and suggest reasons for this;  -Pupils consider their design criteria as they make progress and are willing to alter their plans, sometimes considering the views of others if this helps them to improve their product;  -evaluate their product against their original design criteria;  -evaluate the key events, including technological developments, and designs of individuals in design and technology that have helped shape the world.  **Extended Write:**  **Write an explanation of their product**  **Write a customer review** | **LKS2 Intent**  -Pupilsunderstand that materials have both functional properties and aesthetic qualities;  -Pupils apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products;  -Pupils understand and demonstrate how mechanical and electrical systems have an input and output process;  make and represent simple electrical circuits, such as a series and parallel, and components to create functional products;  -Pupils explain how mechanical systems such as levers and linkages create movement;  -use mechanical systems in their products.  **Extended Write:**  **Newspaper report explain how they made their product** | **LKS2 Intent**  -Pupils start to know when, where and how food is grown (such as herbs, tomatoes and strawberries) in the UK, Europe and the wider world;  -Pupils understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically;  -with support, use a heat source to cook ingredients showing awareness of the need to control the temperature of the hob and/or oven;  -Pupils use a range of techniques such as mashing, whisking, crushing, grating, cutting, kneading and baking;  -explain that a healthy diet is made up of a variety and balance of different food and drink, as represented in the Eatwell Guide and be able to apply these principles when planning and cooking dishes;  -Pupils understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body;  -prepare ingredients using appropriate cooking utensils;  measure and weigh ingredients to the nearest gram and millilitre;  -Pupils start to independently follow a recipe;  -start to understand seasonality.  **Extended Write:**  **Create a menu**  **Write a recipe**  **Review of their food**  **Letter to invite people to eat their food** |
| **Vocabulary**  Innovate  Functional  Product  Purpose  Annotate  Cross sections  Prototypes  Computer aided design  Intended user  Functional  Aesthetics  Components | **Vocabulary**  Equipment  Cutting  Shaping  Joining  Finishing  Components  Construct  Systematic order  Measure  Mark  Score  Assemble  Combine  Appearance  Hemming  Tie dye  Digital graphics | **Vocabulary**  Design criteria  Evaluate  Intended purpose  Strengths  Refine  Edit | **Vocabulary**  Strengthen  Stiffen  reinforce  Compels  Gear  Pulleys  cam  levers  linkages  series circuits  switches  bulbs  buzzers  motors  functional properties  aesthetics properties  mechanical systems  levers  linkages | **Vocabulary**  Healthy  Varied diet  Savoury  Sweet  Seasonal  Ingredients  Grown  Caught  Reared  Processed  Temperature  Mashing  Whisking  Crushing  Grating  Cutting  Kneading  Baking  Nutritious  Energy  Utensils  Gram  Millilitres |