**Year 4 DT Curriculum (MTP)**

**Science LTP**

**Holy Trinity C of E Primary School**

**Science LTP**



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| **Designing and Evaluating** | **Food Awareness - Healthy and varied diet** | **Mechanisms - Levers and Linkages** | **Electrical Systems - Simple programming and control** |
| D: Can make a relevant plan of their idea  D/E: Can investigate and analyse a range of existing products, discussing their features, construction, purpose and intended users  D: Can use their research to develop some of their own design criteria  D: Can produce a detailed step-by-step plan  D: Can come up with their own design criteria about their product  D: Gather information about users’ needs and wants, and develop design criteria to inform the design of products that are fit for purpose.  D: Generate, develop, model and communicate realistic ideas through discussion and annotated sketches.  E: Can explain what they like about their product and what they could change to improve it  E: Can investigate a range of existing products  E: Can evaluate their product against a design criteria | D: Can produce a detailed step-by-step plan  D: Can come up with their own design criteria about their product  M: Can use a range of tools, equipment and techniques  E: Can investigate a range of existing products  E: Can evaluate their product against a design criteria  FA: Can understand, use and explain different techniques and methods when cooking  FA: Can cook their product in the oven, ensuring it is fully cooked  FA: To know about one key chef and their contribution to healthy eating | D: Can take into account the ideas of others when designing  D: Can produce a plan and explain it to others  M: Can continue to work at their product, even though their original idea may not have worked  E: Can suggest some improvements and say what was good and what was not so good about their original designs  E: Can begin to explain how they can improve their original designs  E: Can evaluate a product thinking about both appearance and the way it work  M: Can use mechanical systems such as levers and linkages to create movement | D: Gather information about users’ needs and wants, and develop design criteria to inform the design of products that are fit for purpose.  D: Generate, develop, model and communicate realistic ideas through discussion and annotated sketches.  M: Select from and use tools and equipment to cut, shape, join and finish with some accuracy  M: Connect simple electrical components and a battery in a series circuit to achieve a functional outcome.  M: Program a standalone control box, microcontroller or interface box to enhance the way the product works.  El: Understand and use computing to program and control products containing electrical systems, such as series circuits incorporating switches, bulbs and buzzers.  El: Know and use technical vocabulary relevant to the project.  E: Investigate and analyse a range of existing battery-powered products, including pre-programmed and programmable products.  E: Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. |

**NB**

**Designing and Evaluation runs through all of the strands taught. Within lessons, consider including work on designers, chefs and inventors/inventions (e.g. George Stephenson, Nigella Lawson)**