|  |
| --- |
| AUTUMN |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Mechanisms Sliders and levers    | Mechanisms Wheels and axles   | Mechanical Systems Levers and linkagesDen Building  | Food Healthy and varied diet (including cooking and nutrition requirements for KS2)  | CAM TOYS – Sports person performing an action, using a rotating or up and down motion. | Mechanical systems Pulleys, gears or cams Spring |

|  |
| --- |
| SPRING |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Structures Freestanding structures    | Food Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)  | Food Healthy and varied diet (including cooking and nutrition requirements for KS2)  | Electrical Systems Simple circuits and switches (including programming and control)  | 3D Junk modelling – Making a Mars Rover | Electrical Systems Using more complex switches and circuits (include programming, control and monitoring) |
| SUMMER |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Food Preparing fruit and vegetables (including cooking and nutrition requirements for KS1)   | Textiles Templates and joining techniques  | Textiles 2-D shape to 3-D product  | Structures Shell structures (including computer aided design) *E.g. gift boxes/containers; desk tidy; disposable/recyclable lunchboxes; packaging;* *cool boxes; party boxes; keep safe boxes; mystery boxes*  | 3D clay sculpture of Animals. | Food Celebrating culture and seasonality (including cooking and nutrition requirements for KS2) |

|  |
| --- |
| DESIGN |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria.    | Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.  | 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.  | 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.  | Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design.  |

|  |
| --- |
| MAKE |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].    | Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.  | 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 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.  | 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. |

|  |
| --- |
| EVALUATE |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Explore and evaluate a range of existing products.    | Evaluate their ideas and products against design criteria.  | Investigate and analyse a range of existing products.  | Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria.  | 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 to shape the world. |

|  |
| --- |
| TECHNICAL KNOWLEDGE |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Build structures, exploring how they can be made stronger, stiffer and more stable.    | Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.  | 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 mechanical systems in their designs [pulley’s, Cams, axels, struts, supports, structures.].  | Apply their understanding of computing to program, monitor and control their products. |

|  |
| --- |
| FOOD TECH |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
| Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].    | Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.  | 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 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.  | 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. |