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|  | Term 1 | Term 2 | Term 3 | Term 4 | Terms 5 & 6 |
| Year Group | Change For The Better? | What Have they taught Us? | Where Would We Be Without Water?  | Healthy Body, Healthy Minds | Our Beautiful World |
| EYFS |  | **Structures - Construction** | **Joining- gluing, weaving, taping** | **Food****Stirring and mixing** |  |
| Year 1 |  |  | **Structures**Freestanding structures **Whose Home?**The creation of a structure - knowing how to make structures stronger, stiffer and more stable | **Food****Preparing fruit and vegetables**(including cooking and nutrition requirements for KS1) ‘Designing, making and evaluating a fruit snack for a classpicnic | **Mechanisms**Sliders and levers**Moving Pictures**Design, create and evaluate ‘A Book’ - learning how to use mechanisms in our products – levers and sliders |
| Year 2 |  | **Mechanisms**Wheels and axles**Let’s look at Vehicles**Design, create and evaluate ‘A Car for the alien’ selecting from everyday materials –learning how to use mechanisms in our products; wheels and axles |  | **Food****Sandwich Snacks**Preparing fruit and vegetables(including cooking and nutrition requirements for KS1)Design, create and evaluate a ‘Healthy Lunch Box’ | **Textiles**Templates and joining techniques**Joining Fabrics**Purse/ Pouch for summer vacation |
| Key skills | * Design purposeful, functional, appealing products for ourselves or others based upon design criteria
* Generate, develop, model and communicate ideas through talking, drawing, templates, mock-ups and ICT
* Be able to select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
* Know how to use and be able to select from a range of tools and equipment to perform practical tasks
* Be able to explore and evaluate a range of existing products
* Evaluate our ideas and products against design criteria
* Be able to use the basic principles of a healthy and varied diet to prepare dishes
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| LKS2 | Term 1 | Term 2 | Term 3 | Term 4 | Terms 5 & 6 |
|  | Change For The Better? | What Have they taught Us? | Where Would We Be Without Water? | Healthy Body, Healthy Minds | Our Beautiful World |
| Year 3 | **Structures**Shell structuresDesign and construct a Roman aqueduct that really carries water – use of materials according to their functional properties  | **Structures**Shell structures(including computer-aided design) Project- Nets for packaging to sell at the Winter Fayre- See Structures – Shell Structures Planning- computed aided design |  | **Food****Dips and Dippers**Healthy and varied diet(including cooking and nutrition requirements for KS2)Using melting and cooling to prepare healthy snacks |  |
| Year 4 |  | **Textiles**2-D shape to 3-D product**Bendy Bags**Design and making of a bendy bag decoration from textiles – how do we sew buttons on? |  | **Food****Bread**Celebrating culture and seasonality(including cooking and nutrition requirements for KS2)Baking – prepare and cook a healthy savoury dish that involves baking | **Electrical Systems**Simple circuits and switches (including programming and control) A pocket torch – design and construction understanding the use of circuits, switches and bulbs in products |
| Key skills | * Develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose
* Generate, develop, model and communicate our ideas through discussion, annotated sketches, cross sectional and exploded diagrams
* Be able to select from a wide range of materials and components including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
* Know how to use and be able to select from a range of tools and equipment to perform practical tasks accurately
* Evaluate our ideas and products against our own design criteria and consider the views of others to improve our work
* Apply the principles of a healthy and varied diet understanding seasonality
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| UKS2 | Term 1 | Term 2 | Term 3 | Term 4 | Terms 5 & 6 |
|  | Change For The Better? | What Have they taught Us? | Where Would We Be Without Water? | Healthy Body, Healthy Minds | Our Beautiful World |
| Year 5 |   |  **Mechanical Systems**Pulleys or gears Researching, developing and designing a playground ride for disabled children – How can mechanical systems ie. Gears, pulleys, cams levers, linkages help us? Focus on cross sectional and exploded diagrams and use of prototypes | **Food**Healthy and varied diet(including cooking and nutrition requirements for KS2)Cooking with water – prepare and cook a savoury dish using water - boiling, steaming (soup) |  | **Textiles**Combining different fabric shapes(including computer-aided design)Research, design and construction of a textile project representing the 4 elements earth, fire, air and water – a focus upon aesthetic qualities linked to the Ancient Greek Philosophers  |
| Year 6 | **Electrical Systems****Alarming Vehicles**More complex switches and circuits (including programming, monitoring and control)Design, create and evaluate a ‘wire loop game’ – understand the use of circuits and buzzers and/or motors in products. |  |  | **Food**Celebrating culture and seasonality(including cooking and nutrition requirements for KS2)Grilling – prepare and cook a healthy savoury dish that involves grilling | **Structures**Frame structuresRainforest layers |
| Key skills | * Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose and aimed at particular groups or individuals
* Generate, develop, model and communicate our ideas through the use of prototypes, pattern pieces and computer aided design as well as discussion, annotated sketches, cross sectional and exploded diagrams
* Be able to select from a wide range of materials and components including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
* Know how to use and be able to select from a range of tools and equipment to perform practical tasks accurately
* Investigate and analyse a range of existing products
* Apply the principles of a healthy and varied diet knowing how and where a variety of ingredients are grown, reared, caught and processed
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