|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key Stage 1 – National Curriculum Design and Technology content** | **Kapow Strands** | **Kapow Topics** | | |
| **Year 1** | Windmills | Wheels and Axles | Fruit and Vegetable Smoothies |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria. | Design | Yes | Yes |  |
| Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, information and communication technology. | Design | Yes | Yes | Yes |
| Select from and use a range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing. | Make | Yes | Yes | Yes |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make | Yes | Yes | Yes |
| Explore and evaluate a range of existing products. | Evaluate | Yes | Yes |  |
| Evaluate their ideas and products against design criteria. | Evaluate | Yes | Yes | Yes |
| Build structures, exploring how they can be made stronger, stiffer and more stable. | Technical  Knowledge | Yes |  |  |
| Explore and use mechanisms, for example, levers, sliders, wheels and axles, in their products. | Technical Knoweldge | Yes | Yes |  |
| Use basic principles of a healthy and varied diet to prepare dishes. | DME |  |  |  |
| Understand where food comes from. | DME |  |  | Yes |
| **Year 2** | **Kapow Strands** | Pouches | Ferris Wheels | A Balanced Diet |
| Design purposeful, functional, appealing products for themselves and other users based on design criteria. | Design | Yes | Yes | Yes |
| Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, information and communication technology. | Design | Yes | Yes |  |
| Select from and use a range of tools and equipment to perform practical tasks, for example, cutting, shaping, joining and finishing. | Make | Yes | Yes |  |
| Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make | Yes | Yes |  |
| Explore and evaluate a range of existing products. | Evaluate | Yes | Yes | Yes |
| Evaluate their ideas and products against design criteria. | Evaluate | Yes | Yes | Yes |
| Build structures, exploring how they can be made stronger, stiffer and more stable. | Technical  Knowledge |  | Yes |  |
| Explore and use mechanisms, for example, levers, sliders, wheels and axles, in their products. | Technical Knoweldge |  | Yes |  |
| Use basic principles of a healthy and varied diet to prepare dishes. | DME |  |  | Yes |
| Understand where food comes from. | DME |  |  | Yes |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key Stage 2 – National Curriculum Design and Technology content** | **Kapow Strands** | **Kapow Topics** | | |
| **Year 3** |  | Eating Seasonally | Castles | Pneumatic Toys |
| 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. | Design |  | Yes | Yes |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. | Design |  | Yes | Yes |
| Select from and use a wider range of tools and equipment to perform practical tasks, for example. Cutting, shaping, joining and finishing accurately. | Make |  | Yes | Yes |
| Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make |  | Yes | Yes |
| Investigate and analyse a range of existing products. | Evaluate |  | Yes | Yes |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate |  | Yes | Yes |
| Understand how key events and individuals in Design and Technology have helped to shape the World. | Evaluate |  |  | Yes |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical Knoweldge |  | Yes |  |
| Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages. | Technical Knoweldge |  |  | Yes |
| Understand and use electrical systems in their products, for example, series circuits incorporating switches, bulbs, buzzers and motors. | Technical Knoweldge |  |  |  |
| Apply their understanding of computing to program, monitor and control their products. | Technical Knoweldge |  |  |  |
| Understand and apply principles of a healthy and varied diet. | DME | Yes |  |  |
| Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | DME | Yes |  |  |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | DME | Yes |  |  |
| **Year 4** | **Kapow Topics** | Adapting a recipe | Fastenings | Torches |
| 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. | Design | Yes | Yes | Yes |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. | Design | Yes | Yes | Yes |
| Select from and use a wider range of tools and equipment to perform practical tasks, for example. Cutting, shaping, joining and finishing accurately. | Make | Yes | Yes | Yes |
| Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. | Make | Yes | Yes | Yes |
| Investigate and analyse a range of existing products. | Evaluate | Yes | Yes | Yes |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | Yes | Yes | Yes |
| Understand how key events and individuals in Design and Technology have helped to shape the World. | Evaluate |  |  | Yes |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical Knoweldge |  |  |  |
| Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages. | Technical Knoweldge |  |  |  |
| Understand and use electrical systems in their products, for example, series circuits incorporating switches, bulbs, buzzers and motors. | Technical Knoweldge |  |  | Yes |
| Apply their understanding of computing to program, monitor and control their products. | Technical Knoweldge |  |  |  |
| Understand and apply principles of a healthy and varied diet. | DME |  |  |  |
| Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | DME | Yes |  |  |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | DME |  |  |  |
| **Year 5** | **Kapow Strands** | What could be healthier? | Stuffed Toys | Bridges |
| 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. | Design | Yes | Yes | Yes |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. | Design | Yes | Yes | Yes |
| Select from and use a wider range of tools and equipment to perform practical tasks, for example. Cutting, shaping, joining and finishing accurately. | Make | Yes | Yes | Yes |
| 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.* | Make | Yes | Yes | Yes |
| Investigate and analyse a range of existing products. | Evaluate | Yes | Yes | Yes |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | Yes | Yes | Yes |
| Understand how key events and individuals in Design and Technology have helped to shape the World. | Evaluate | Yes |  |  |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical Knoweldge |  |  | Yes |
| Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages. | Technical Knoweldge |  |  |  |
| Understand and use electrical systems in their products, for example, series circuits incorporating switches, bulbs, buzzers and motors. | Technical Knoweldge |  |  |  |
| Apply their understanding of computing to program, monitor and control their products. | Technical Knoweldge | Yes |  |  |
| Understand and apply principles of a healthy and varied diet. | DME | Yes |  |  |
| Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | DME | Yes |  |  |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | DME | Yes |  |  |
| **Year 6** |  | Come Dine with Me | Automata Toys | Steady Hand Game |
| 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. | Design | Yes | Yes | Yes |
| Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer aided design. | Design | Yes | Yes | Yes |
| Select from and use a wider range of tools and equipment to perform practical tasks, for example. Cutting, shaping, joining and finishing accurately. | Make | Yes | Yes | Yes |
| 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.* | Make | Yes |  | Yes |
| Investigate and analyse a range of existing products. | Evaluate |  | Yes | Yes |
| Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. | Evaluate | Yes | Yes | Yes |
| Understand how key events and individuals in Design and Technology have helped to shape the World. | Evaluate |  | Yes | Yes |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | Technical Knoweldge |  |  |  |
| Understand and use mechanical systems in their products, for example, gears, pulleys, cams, levers and linkages. | Technical Knoweldge |  | Yes |  |
| Understand and use electrical systems in their products, for example, series circuits incorporating switches, bulbs, buzzers and motors. | Technical Knoweldge |  |  | Yes |
| Apply their understanding of computing to program, monitor and control their products. | Technical Knoweldge |  |  |  |
| Understand and apply principles of a healthy and varied diet. | DME | Yes |  |  |
| Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. | DME | Yes |  |  |
| Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. | DME | Yes |  |  |