**Early Years**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **ELG Statements**  *(Endpoints children will achieve)* | **Substantive – Practical Knowledge**  *(Design, Make, Evaluate,)* | **Disciplinary Technical Knowledge** | **Concepts**  *(Resilience, Ambition)* | **Vocabulary** | **Culture**  *(How is a love of Design fostered school wide? How is DT represented across the curriculum? What enrichment opportunities for each topic are there?)* |
|  |  | Children will know how to/be able to: | Children will know how to/be able to: | Children will appreciate: | Children will recall and verbalise: |  |
| **Nursery** | Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.  Share their creations, explaining the process they have used.  Use a range of small tools, including scissors, paintbrushes and cutlery.  Use various construction materials, e.g. joining pieces, stacking vertically and horizontally,  balancing, making enclosures and creating spaces.  • Use tools for a purpose. | Use one-handed tools and equipment, including scissors, paintbrushes and **cutlery**. | Explore different materials freely, in order to develop their ideas about how to use them and what to make.  Choose the right resource to carry out their own plan.  Develop their own ideas and then decide which materials to use to express them.  Join different materials and explore different textures. | Gaining different experiences of ‘thinking through’ what they want to join or build.  Exploring different materials and their textures.  Developing their own ideas whilst exploring different materials and deciding on how to use them. | Materials  Textures  Explore  Build  Join  Tools  Plan | Planned practical activities where children can explore and develop their own ideas.  A variety of toy tools and role play situations available.  Outside learning area with a workbench and tools.  Different materials available for the children to explore in lessons.  Planned activities linked to cooking and using cutlery (small tools). |
| **Reception** | Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.  Share their creations, explaining the process they have used.  Use a range of small tools, including scissors, paintbrushes and cutlery.  Use various construction materials, e.g. joining pieces, stacking vertically and horizontally,  balancing, making enclosures and creating spaces.  • Use tools for a purpose. | Return to and build on their previous learning, refreshing ideas and developing their ability to represent them.  Use one-handed tools and equipment, including scissors, paintbrushes and **cutlery**. | Create collaboratively sharing ideas, resources and skills.  Choose the right resource to carry out their own plan.  Develop their small motor skills so that they can use a range of tools competently, safely and confidently.  Explore different materials freely, in order to develop their ideas about how to use them and what to make.  Develop their own ideas and then decide which materials to use to express them.  Join different materials and explore different textures. | Building on the different experiences they have gained.  Creating ideas and sharing resources and skills with their peers.  Exploring new materials and textures.  Exploring and using new tools.  Developing fine motor skills. | Materials  Textures  Explore  Build  Join  Tools  Plan  Share  Use safely | Planned practical activities where children can explore and develop their own ideas.  A variety of toy tools and role play situations available.  Outside learning area with a workbench and tools.  Different materials available for the children to explore in lessons.  Planned activities linked to cooking and using cutlery (small tools). |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **National Curriculum Outcomes**  *(Endpoints children will achieve)* | **Substantive – Practical Knowledge**  *(Design, Make, Evaluate,)* | **Disciplinary Technical Knowledge** | **Concepts**  *(Resilience, Ambition)* | **Vocabulary** | **Culture**  *(How is a love of Design fostered school wide? How is DT represented across the curriculum? What enrichment opportunities for each topic are there?)* |
|  |  | Children will know how to/be able to: | Children will know how to/be able to: | Children will appreciate: | Children will recall and verbalise: |  |
| **Year 1 – To plan and make Toys with movable sliders or levers.** | To design purposeful, functional, appealing products for themselves and other users based on a design criteria.  Select from and use a range of tools and equipment to perform practical tasks.  Select from and use a wide range of materials and components. | Know how to create and develop a purposeful product based on a design criteria.  Know how to make a model with ‘movable levers or sliders’ (for example, toys) and understand how the model works.  Know how to select from a range of tools and materials, including paper, cardboard and split pins.  Know how to evaluate their product by identifying what went well, what was challenging and whether it met the original design criteria. | Explore the use of different mechanisms (for example sliders, wheels and axles) in their products.  Assemble and join materials using a variety of methods.  Begin to assemble, join and combine materials and components together using a variety of temporary methods (e.g. glue or Sellotape). | Talk about ideas and examples of how the DT product is used in real life.  Build on the different experiences and skills they have gained from previous years.  Create ideas and share resources and skills with their peers.  Explore new materials, equipment and tools. | Design  Design Criteria  Product  Materials  Tools  Equipment  Make  Evaluate | Design and Technology becomes a natural, embedded element of the school curriculum linking well to half termly topics in each year group. Design and Technology will provide children with inspiring opportunities to use creativity and imagination to design, make and evaluate their own products. |
| **Year 2/3 –To plan and make Real-life Superhero cars with movable wheels and axles.** | To design purposeful, functional, appealing products for themselves and other users based on a design criteria.  Select from and use a range of tools and equipment to perform practical tasks.  Select from and use a wide range of materials and components. | Know how to create and develop a purposeful, functional product based on a design-criteria.  Know how to make a model with ‘movable wheels and axles’ and understand how the model works.  Know how to select from and use a range of tools and equipment to perform practical tasks, such as cutting and joining to allow movement and finishing.  Know how to evaluate their product by identifying what went well, what was challenging and whether it met the original design criteria. | Explore and use mechanisms (for example, movable wheels and axles), in their products.  Start to assemble, join and combine materials in order to make a product.  Join materials and components in different ways, including glue, Sellotape and masking tape.  Carry out finishing techniques that have been modelled by the teacher. | Talk about ideas and examples of how the DT product is used in real life.  Build on the different experiences and skills they have gained from previous years.  Create ideas and share resources and skills with their peers.  Explore new materials, equipment and tools. | Design  Design Criteria  Product  Materials  Tools  Equipment  Make  Evaluate  Technical Vocabulary | Design and Technology becomes a natural, embedded element of the school curriculum linking well to half termly topics in each year group. Design and Technology will provide children with inspiring opportunities to use creativity and imagination to design, make and evaluate their own products. |

**Key Stage 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **National Curriculum Outcomes**  *(Endpoints children will achieve)* | **Substantive – Practical Knowledge**  *(Design, Make, Evaluate,)* | **Disciplinary Technical Knowledge** | **Concepts**  *(Resilience, Ambition)* | **Vocabulary** | **Culture**  *(How is a love of Design fostered school wide? How is DT represented across the curriculum? What enrichment opportunities for each topic are there?)* |
|  |  | Children will know how to/be able to: | Children will know how to/be able to: | Children will appreciate: | Children will recall and verbalise: |  |
| **Years 3/ 4 – To plan and make Egyptian collars using textiles and simple stitching.** | Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.  Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams, prototypes and computer-aided designs.  Select from and use a wider range of tools and equipment to perform practical tasks.  Select from and use a wider range of materials and components.  Understand how key events and individuals in DT have helped shape the world. | Know how to create and develop a design-criteria for a purposeful product. This may include annotated sketches, prototypes and computer-aided designs.  Select and use a range of materials and components, including textiles, according to their functional properties and aesthetic qualities.  Sew, weave or knit using different stitches.  Know how to evaluate their own product using the design criteria and consider the views of others to improve their work. | Select and use a range of materials and components, including textiles, according to their functional properties and aesthetic qualities.  Mark, measure and cut accurately a range of materials using appropriate tools, equipment and techniques.  Start to join and combine materials and components accurately in temporary and permanent ways.  Sew, weave or knit using simple stitches. | Talk about ideas and examples of how the DT product is used in real life.  Build on the different experiences and skills they have gained from previous years.  Create ideas and share resources and skills with their peers.  Explore new materials, equipment and tools. | Design  Design Criteria  Prototypes  Product  Materials  Construction materials  Textiles  Tools  Equipment  Make  Cutting  Joining  Finishing  Evaluate  Technical Vocabulary | Design and Technology becomes a natural, embedded element of the school curriculum linking well to half termly topics in each year group. Design and Technology will provide children with inspiring opportunities to use creativity and imagination to design, make and evaluate their own products. |
| **Year 5 – To plan and make the Greek dish–Tzatziki** | Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.  Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams, prototypes and computer-aided designs.  Select from and use a wider range of tools and equipment to perform practical tasks.  Select from and use a wider range of materials and components.  Understand how key events and individuals in DT have helped shape the world.  Understand and apply the principles of a healthy and varied diet.  Prepare and cook a variety of predominately 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. | Know how to create and develop a design-criteria for a purposeful product. This may include annotated sketches, prototypes and computer-aided designs.  Know how to select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing), accurately.  Use simple utensils and equipment to e.g. weigh, peel, cut, slice, squeeze, grate and chop safely.  Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.  Know how to evaluate ideas and finished products against the design criteria, including intended user and purpose. Know the impact or purpose of their design and technology product in relation to everyday life. | Prepare and cook a predominately savoury dish.  Select appropriate materials, tools and technique (e.g. cutting, shaping, joining and finishing) accurately and safely.  Apply the principles of a healthy and varied diet. | Talk about ideas and examples of how the DT product is used in real life.  Build on the different experiences and skills they have gained from previous years.  Create ideas and share resources and skills with their peers.  Explore new materials, equipment and tools. | Design  Design Criteria  Prototypes  Product  Ingredients  Seasonality  Savoury dishes  Reared, caught, processed  Components  Tools  Equipment  Make  Cutting  Evaluate  Technical Vocabulary | Design and Technology becomes a natural, embedded element of the school curriculum linking well to half termly topics in each year group. Design and Technology will provide children with inspiring opportunities to use creativity and imagination to design, make and evaluate their own products. |
| **Year 6 – To plan and make a card using electrical circuits. This could include a light, buzzer or switch. Link the board game to the theme of World War 1.** | Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.  Generate, develop, model and communicate their ideas through discussion, annotated sketches, diagrams, prototypes and computer-aided designs.  Select from and use a wider range of tools and equipment to perform practical tasks.  Select from and use a wider range of materials and components.  Evaluate their ideas and products against their design criteria.  Understand how key events and individuals in DT have helped shape the world. | Know how to create and develop a design-criteria for a purposeful product. This may include annotated sketches, prototypes and computer-aided designs.  Know and select from a wider range of materials and components,  selecting them according to their functional properties and aesthetic qualities.  Understand and use electrical systems in the product, (for example, series circuits, incorporating switches, bulbs, buzzers and motors.)  Know how to evaluate ideas and finished products against the design criteria, including intended user and purpose. Know the impact or purpose of their design and technology product in relation to everyday life. | Confidently select appropriate tools, materials, components and techniques and use them efficiently.  Make modifications go along and explain their reasons.  Use and understand electrical systems in their products (for example, series circuits, incorporating switches, bulbs, buzzers and motors). | How to create and  Talk about ideas and examples of how the DT product is used in real life.  Build on the different experiences and skills they have gained from previous years.  Create ideas and share resources and skills with their peers.  Explore new materials, equipment and tools. | Design  Design Criteria  Prototypes  Product  Materials  Components  Tools  Equipment  Joining  Finishing  Evaluate | Design and Technology becomes a natural, embedded element of the school curriculum linking well to half termly topics in each year group. Design and Technology will provide children with inspiring opportunities to use creativity and imagination to design, make and evaluate their own products. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |