|  | **EYFS** | **KS1** | | **KS2** | | | |
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|  | **Three and Four-Year-Olds**  **Reception Early Learning Goals** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| **Autumn 1**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Introduction to DT**  **Project: Skill Building Activities** | **Topic: Architecture 1**  **Project: Houses** | **Topic: Structure**  **Project: Pencil Pots** | **Topic: Textiles**  **Project: Bean Bag/Juggling Ball** | **Topic: Cooking**  **Project: Pasta Salad** | **Topic: Architecture**  **Project: Bridges** |
|  | As an introduction to Design and Technology, the children will be developing their basic skills in cutting and shaping with guidance. They will do this through various activities and will evaluate their work and skills at different stages during this topic with support and through discussion with peers and adults. | This term the children will be working with tools that they have selected to manipulate materials such as clay to create houses. They will need to consider the use of prototypes and how they will create a design using a given design criteria and consider the strengths and weaknesses of their final product. | The children will have the opportunity to design and make a pencil pot for a target audience. They will create annotated sketches and use their knowledge of nets to cut, score, fold and join their pencil pots with increasing accuracy. Finally, the children will consider the success of their product and whether it is suitable for their target audience. | With increasing confidence in their sewing skills, children will begin to explore alternative types of stitches to join fabrics together and create beanbags or juggling balls. The children will have the opportunity to embellish their creations with beads, buttons etc. They will evaluate their work and consider whether it is fit to be used. | The children will design a recipe to show how to make a dish. They will have the opportunity to work in a wider context and follow a recipe and make a pasta salad.while developing the appropriate kitchen skills. They will evaluate their dish and consider how to improve their dish. They will demonstrate how to cook safely and hygienically. | With confidence the children will design annotated cross-sectional designs for a bridge. They will choose from various materials to ensure that they can build a sturdy and stiff bridge which can hold some form of weight. They will continuously test the durability of their product before evaluating the strengths and weaknesses of their design. |
| **Autumn 2**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Mechanisms**  **Project: Moving Pictures** | **Topic: Structure**  **Project: Sledges** | **Topic: Textiles**  **Project: Key Rings** | **Topic: Cooking**  **Project: Sandwiches** | **Topic: Architecture**  **Project: Wooden Towers** | **Topic: Mechanisms**  **Project: Fair Ground** |
|  | With support, the children using annotated drawings to design and make moving pictures that include a sliding mechanism. The children will have the opportunity to follow a simple set of instruction to make their moving pictures while considering what equipment they will need and how it will be used safely. They will begin to evaluate their work through discussions. | The children will have the opportunity to investigate products which already exist and then consider which materials would make the best sledge through testing for waterproofness and durability etc. They will make nets using their cutting and joining skills with some accuracy. The children will evaluate their work and consider what improvement can be made. | This term the children will be able to design a keyring with a purpose. They will cut and join fabrics together using a basic running stitch. They will have the opportunity to add decorations to their product to improve the appearance. Children will be able to evaluate their work by making simple comparisons to their design and products which already exist. | The children will design a recipe with an ingredients list. They will have the opportunity to work in a wider context and make sandwicheswhile developing the appropriate kitchen skills. They will evaluate their dish and identify what they would do differently next time to improve what they have made. | With increasing confidence, the children will design annotated cross-sectional designs for a tower. They will choose from various materials to ensure that they can build a sturdy and stiff tower which can stand upright. They will continuously test the durability of their product before evaluating the strengths and weaknesses of their design. | The children will create annotated cross-sectional drawings to design and make a Ferris wheel. The children will have the opportunity to work with wooden dowels and lolly sticks to build their spinning mechanisms which continuously testing the durability and stability of their products. They will evaluate their work through discussions and written evaluations. |
| **Spring 1**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Illusions**  **Project: Optical Illusions** | **Topic: Textiles**  **Project: Puppets** | **Topic: Cooking**  **Project: Pitta Pizza** | **Topic: Architecture**  **Project: Dolls Houses** | **Topic: Mechanisms**  **Project: CAM Toy** | **Topic: Circuits**  **Project: TBC** |
|  | This term the children with be investigating optical illusions. They will begin to generate ideas for their final products. With close support, the children will mark and cut out their spinner with some accuracy. The children will have the opportunity to discuss and reflect on their final product and begin to identify strengths of their work. | This term the children will be able to design a puppet with a purpose. They will cut and join fabrics together using a basic running stitch. They will have the opportunity to add simple decorations to their product to improve the appearance and design. Children will be able to evaluate their work by making simple comparisons to their design and products which already exist. | The children will design simple recipe instructions, with a simple ingredients list. They will have the opportunity to work in a wider context and make a pitta pizzawhile developing the appropriate kitchen skills. They will evaluate their and identify what they would do differently next time to improve what they have made and reflect on the taste. | This term the children will be working with a range of materials to design and make a dolls house. They will need to consider the layout of the house and the construction of the roof to ensure that it is stiff and durable. Children will be able to decorate their houses using various materials. They will consider the strengths and weaknesses of their final product. | The children will create annotated cross-sectional drawings to design and make a CAMS toy with more than 1 mechanism. The children will have the opportunity to work with wooden dowels to build their mechanisms. They will evaluate their work through discussions and written evaluations and test their final product to ensure it works and would be a suitable toy. |  |
| **Spring 2**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Structure**  **Project: Moving Vehicles** | **Topic: Cooking**  **Project: Yoghurt Pots with Granola** | **Topic: Architecture**  **Project: Modern Houses** | **Topic: Mechanisms**  **Project: Catapult** | **Topic: Circuits**  **Project: Alarm System** | **Topic: Structure**  **Project: Tents** |
|  | The children will have the opportunity to consider what moving vehicles they see in everyday life to design and make a moving vehicle using dowels and securing wheels to their product. Children will then begin to add simple decorations to improve the appearance of their moving vehicle. They will begin to evaluate their final product against and success criteria. | The children will design simple recipe  instructions to show how to make a layered yoghurt pot with fruit of choice. They will have the opportunity to work in a wider context and make a simple dish with support, while developing the appropriate kitchen skills.  They will begin to explore and evaluate their dish through simple written evaluations. | This term the children will be working with a range of materials to design and make a modern-day house. They will need to consider the layout of the house and the construction of the roof. The children will create a design using a given design criteria and consider the strengths and weaknesses of their final product. | The children will create annotated cross-sectional drawings to design and make a catapult. The children will have the opportunity to test the durability and elasticity of materials for their spring mechanism. They will evaluate their work through discussions and written evaluations and reflections and test their catapult to see whether it works. | This term the children will be exploring circuits to make alarm systems. They will have the opportunity to make and test a circuit with a buzzer as their sounding alarm element and ensure that their system is efficient and effective. They will be able to evaluate their work through written evaluations with confidence. | The children will have the opportunity to design and make a tent that is durable. They will create annotated sketches and use their knowledge of nets to cut, score, fold and join the panels of their tents accurately. Finally, the children will consider the success of their product and whether it is durable and successfully joined using appropriate adhesive materials. |
| **Summer 1**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Cooking**  **Project: Healthy Salad** | **Topic: Architecture 2**  **Project: Bridges** | **Topic: Mechanisms**  **Project: CAMs Toy** | **Topic: Circuits**  **Project: Torches** | **Topic: Structure**  **Project: Biscuit Box** | **Topic: Textiles**  **Project: Hats** |
|  | The children will design simple recipe instructions, either in simple sentences or using pictures to show how make a salad. They will have the opportunity to work in a wider context, to make a simple dish with support while developing the appropriate kitchen skills. They will begin to explore and evaluate simple existing dishes through discussions and simple written evaluations. | This term the children will be working with tools that they have selected to build a bridge by joining materials. They will need to consider the use of prototypes and explore how they can make the bridge stronger. They will create a design using a given design criteria and consider the strengths and weaknesses of their final product. | The children will create annotated cross-sectional drawings to design and make a CAMS toy with a singular mechanism. The children will have the opportunity to work with wooden dowels to build their mechanisms. They will evaluate their work through discussions and written evaluations and test their final product to ensure it works and would be a suitable toy. | This term the children will be exploring circuits to make torches. The children will have the opportunity to make and test a circuit with a bulb as their light up element and ensure that their torch casing is suitable. They will be able to evaluate their work through discussions and written evaluations with increasing confidence. | The children will have the opportunity to design and make a biscuit tin for a target audience. They will create annotated sketches and use their knowledge of nets to cut, score, fold and join their boxes with accuracy. Finally, the children will consider the success of their product and whether it is suitable for their target audience. | With confidence in their sewing skills, children will explore alternative types of stitches to join recycled fabrics together and create hats for personal use. The children will have the opportunity to develop their skills in using fabric scissors. They will evaluate their work and consider whether it is fit to be used and whether the stitching is sturdy enough. |
| **Summer 2**  **Topics:**  **Architecture**  **Mechanisms**  **Circuits (KS2)**  **Structure**  **Textiles**  **Cooking** |  | **Topic: Textiles**  **Project: Weaving** | **Topic: Mechanisms**  **Project: Windmills** | **Topic: Circuits**  **Project: Light Up Picture** | **Topic: Structure**  **Project: Money Box** | **Topic: Textiles**  **Project: Cushion Covers** | **Topic: Cooking**  **Project: Blueberry Muffins** |
|  | This term the children have the opportunity to explore weaving. With support, they will begin to select appropriate material to create a woven place mat and enhance the appearance of their work by adding beads for decoration. Children will evaluate their work by discussing the challenges and identifying the strengths of their final woven placemat. | The children will use annotated drawings to design and make a windmill mechanism. The children will have the opportunity to follow a simple set of instruction to make their windmills choosing from a range on suitable materials while considering what equipment they will need and how it will be used safely. They will begin to evaluate their work through discussions and simple written evaluations. | This term the children will be exploring multiple ideas before choosing a final design for their light up picture project. The children will have the opportunity to make and test a circuit with a bulb as their light up element. They will be able to evaluate their work through discussions and written evaluations and reflections. | The children will have the opportunity to design and make a Money box for personal use. They will create annotated sketches and use their knowledge of nets to cut, score, fold and join their money boxes with increasing accuracy. Finally, the children will consider the success of their product and whether it is successful in comparison to their original plans. | With confidence in their sewing skills, children will explore alternative types of stitches to join recycled fabrics together and create a cushion cover. The children will have the opportunity to develop their skills in using fabric scissors. They will evaluate their work and consider whether it is fit to be used and whether the stitching is sturdy enough. | The children will design a recipe to show how to make muffins. They will have the opportunity to work in a wider context and follow a recipe and make Blueberry and Cinnamon Muffinswhile developing the appropriate kitchen skills. They will evaluate and consider how they would change the recipe to improve the  food they have made. |