Curriculum Narratives: Design Technology (North Elmham)

<table>
<tr><th>DT</th><th>Aut 1</th><th>Aut 2</th><th>Spr 1</th><th>Spr 2</th><th>Sum 1</th><th>Summer 2</th></tr>
<tr><td rowspan="2">Sheep Class
(Year R and 1)

2023-24</td><td colspan="6">In addition to the units shown below, <u>reception</u> children will also access design technology skills through continuous provision each week. For example fine motor skills including threading, dough modelling and cutting

Children will return to and build on their previous learning, explore different materials freely, 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. They will refine ideas and develop their ability to represent them. They will create collaboratively, sharing ideas, resources and skills.</td></tr>
<tr><td colspan="2"><u>Mechanisms</u>
Make a card animal toy

Explore how a pivot and a slider mechanism work. Design and make own animal toy incorporating two simple mechanisms. (slider and pivot)
  </td><td colspan="2"><u>Textiles</u>
Make a fabric keyring for bookbag

Explore different fabrics. Sew and join fabrics using running stitch and use stitching to attach a ring for a key.
  </td><td colspan="2"><u>Cooking and Nutrition</u>
Design and make a cous-cous or quinoa salad

Use a basic principle of a healthy and varied diet to prepare dishes.

Taste and evaluate food - ie tomatoes, spring onions, cous-cous, quinoa and a range of dressings. Also test a mixed cous-cous salad. Design and make a healthy cous-cous or quinoa salad.
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<tr><td>Whales Class
(Year 2, 3 and 4)

2023-24</td><td><u>Cooking and Nutrition</u>
Design and make a healthy sandwich

Discuss healthy foods, use the food pyramid to explain. Design, make and evaluate a healthy sandwich for a class picnic.

VOCAB:
Design, Sandwich, Evaluate, Smell, Taste, Texture</td><td><u>Mechanisms</u>
Pneumatic systems:
Make a pneumatic toy

Investigate syringe and tube models and other pneumatic systems. Design and build a model toy/ monster which operates using a pneumatic system.

Vocab: Pneumatic, inflatable, pressure, force,</td><td><u>Textiles</u>
Design and make a celtic money holder
Build on sewing skills to create a drawstring bag, suitable for holding coins.

VOCAB: Sewing, functionality, running stitch, fabric, needles, pins, thread, draw string, seam allowance, reverse.</td></tr>
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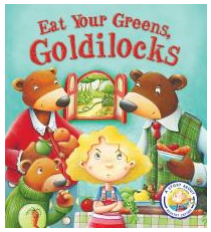
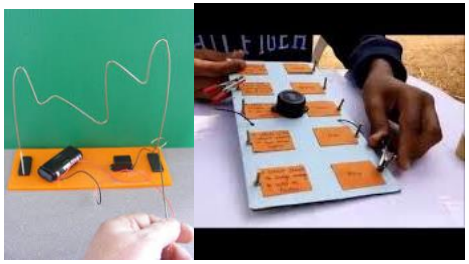
		syringe.	
Lions Class (Year 5 and 6) **2023-24**	**Mechanisms** **Design and make a toy using a CAM mechanism** Children will understand the use of a CAM mechanism and explore how CAMs work before designing a mechanical toy using a working CAM mechanism. Children will make and evaluate a mechanical toy using a working CAM mechanism. **VOCAB:** Mechanical, cam (round, egg, ellipse, eccentric, hexagonal, snail, pear), friction drive, follower, slider, handle, phase, 10mm wood, 5mm dowel, strengthen, support, clamp, bench hook, hacksaw, drill, drill bit, tubing, audience. 	**Cooking and Nutrition** **Design and make Iraqi style breads.** Investigate current Iraqi bread and compare to other breads from around the world. Look at the ingredients and where they are grown. Design own bread with a choice of shape and some variable ingredients. Make, taste and evaluate bread. **VOCAB:** Halaal, Wheat, Yeast, Khubz Tannour, Samoon, Carbohydrate 	**Electrical systems** **Design and make a toy or game which incorporates an electrical system.** To use their science knowledge of electrical circuits and components to create a game/ toy containing an electrical system. In groups research and select electrical games/ toys/ themes currently available and conduct market research across class. Make and evaluate (using testing by children from other classes to inform their evaluation) **VOCAB:** Series circuit, wire, Switch, battery, buzzer, bulb, motor.Market research 

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Selects appropriate resources and	Explore and investigate existing	Generate ideas by drawing on their	Generate ideas for an item, considering	Generate ideas, considering the	Generate ideas through	Communicate their ideas through

	adapts work where necessary.	products. • Draw on their own experience to help generate ideas • Suggest ideas and explain what they are going to do • Talk about their design as they develop and identify good and bad points • Note changes made during the making process as annotation to plans/drawings.	own and other people's experiences • Develop their design ideas through discussion, observation , drawing and modelling • Identify a purpose for what they intend to design and make • Identify simple design criteria • Make simple drawings and label parts	its purpose and the user/s • Identify a purpose and establish criteria for a successful product. • Plan the order of their work before starting • Explore, develop and communicate design proposals by modelling ideas • Make drawings with labels when designing	purposes for which they are designing • Make labelled drawings from different views showing specific features • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail • Evaluate products and identify criteria that can be used for their own designs	brainstorming and identify a purpose for their product • Draw up a specification for their design • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail • Use results of investigations, information sources, including ICT when developing design ideas	detailed labelled drawings • Develop a design specification • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways • Plan the order of their work, choosing appropriate materials, tools and techniques
Make	-Selects tools and techniques needed to shape, assemble and join materials they are using. -Constructs with a purpose in mind, using a variety of resources. -Uses simple tools and techniques competently and appropriately.	Make their design using appropriate techniques • With help measure, mark out, cut and shape a range of materials. • Use tools eg scissors and a hole punch safely • Assemble, join and combine materials and components together. • Select and use appropriate fruit and vegetables, processes and tools • Use basic food handling, hygienic practices and	Begin to select tools and materials; use vocab' to name and describe them • Measure, cut and score with some accuracy • Use hand tools safely and appropriately • Assemble, join and combine materials in order to make a product • Cut, shape and join fabric to make a simple garment. Use basic sewing techniques • Follow safe	• Select tools and techniques for making their product • Measure, mark out, cut, score and assemble components with more accuracy • Work safely and accurately with a range of simple tools • Think about their ideas as they make progress and be willing to change things if this helps them improve their work. Measure, tape or pin, cut and join	Select appropriate tools and techniques for making their product • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques • Join and combine materials and components accurately in temporary and permanent ways • Sew using a range of different stitches • Measure, tape or pin, cut and join	Select appropriate materials, tools and techniques • Measure and mark out accurately • Use skills in using different tools and equipment safely and accurately • Weigh and measure accurately (time, dry ingredients, liquids) • Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens • Cut and join with	Select appropriate tools, materials, components and techniques • Assemble components make working models • Use tools safely and accurately • Construct products using permanent joining techniques • Make modifications as they go along • Pin, sew and stitch materials together create a product • Achieve a quality product

		personal hygiene • Use simple finishing techniques to improve the appearance of their product.	procedures for food safety and hygiene • Choose and use appropriate finishing techniques	fabric with some accuracy • Demonstrate hygienic food preparation and storage • Use finishing techniques strengthen and improve the appearance of their product using ICT	fabric with some accuracy. • Use simple graphical communication techniques	accuracy to ensure a good-quality finish to the product	
Evaluate	Adapts work where necessary	• Evaluate their product by discussing how well it works in relation to the purpose and attempting to say why. • Evaluate their product by asking questions about what they have made and how they have gone about it.	Evaluate against their design criteria • Evaluate their products as they are developed, identifying strengths and possible changes they might make • Talk about their ideas, saying what they like and dislike about them	• Evaluate their product against original design criteria e.g. how well it meets its intended purpose • Disassemble and evaluate familiar products	Evaluate their work both during and at the end of the assignment • Evaluate their products carrying out appropriate tests	Evaluate a product against the original design specification • Evaluate it personally and seek evaluation from others	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests • Record their evaluations using drawings with labels • Evaluate and suggest ways that their product could be improved