

| | Year 3 |
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| Aspect of DT | Textiles |
| Focus | 2D shape to 3D product |
| Investigative and Evaluative Activities (IEAs) | <ul style="list-style-type: none"> • Children investigate a range of textile products that have a selection of stitches, joins, fabrics, finishing techniques, fastenings and purposes, linked to the product they will design, make and evaluate. Think about products from the past and what changes have been made in textile production and products e.g. the invention of zips and Velcro. • Give children the opportunity to disassemble appropriate textiles products to gain an understanding of 3-D shape, patterns and seam allowances. • Use questioning to develop understanding e.g. <i>What is its purpose? Which one is most suited to its purpose? What properties/characteristics does the fabric have? Why has this fabric been chosen? How has the fabric been joined together? How effective are its fastenings? How has it been decorated? Does its decoration have a purpose? What would the 2-D pattern piece look like? What are its measurements? How might you change the product?</i> |
| Focused Tasks (FTs) | <ul style="list-style-type: none"> • Demonstrate a range of stitching techniques and allow children to practise sewing two small pieces of fabric together, demonstrating the use of, and need for, seam allowances. • Allow children to use a textile product they have taken apart to create a paper pattern using 2-D shapes. • Provide a range of fabrics – children to consider whether fabrics are suitable for the chosen purpose and user. The fabrics also can be used for demonstrating and testing out a range of decorative finishing techniques e.g. appliqué, embroidery, fabric pens/paints, printing. • Use questioning to develop understanding e.g. <i>Which joining technique makes the strongest seam? Why? Which stitch is appropriate for the purpose? Which joining techniques are suitable for the fabric and purpose? How can you stiffen your fabric? What is the purpose of the fastenings? Which one is most suited to the purpose and user? What decorative techniques have been used? What effect do they have?</i> |

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| <p>Design, Make and Evaluate Assignment (DMEA)</p> | <ul style="list-style-type: none"> • Children to create a design brief, supported by the teacher, set within a context which is authentic and meaningful, for example Can you make a pencil case to hold your pens? Discuss the intended user, purpose and appeal of their product. Create a set of design criteria. • Ask children to sketch and annotate a range of possible ideas, constantly encouraging creative thinking. Produce mock-ups and prototypes of their chosen product. • Plan the main stages of making e.g. using a flowchart or storyboard. • Children to assemble their product using their existing knowledge, skills and understanding from IEAs and FTs. Encourage children to think about the aesthetics and quality finish of their product. • Evaluate as the process is undertaken and the final product in relation to the design brief and criteria. The product should be tested by the intended user and for its purpose and others' views sought to help with identifying possible improvements. |
| <p>Additional Resources</p> | <p>DT Association – Project on a Page 3-4</p> |
| <p>Links</p> | <p>RE: Celebrations Seasonal Festivals Holidays Sustainability Containers</p> |
| <p>Vocab</p> | <p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance</p> <p>user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics,</p> |

| | Year 3 |
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| Aspect of DT | Structures |
| Focus | Shell structures using computer-aided design |
| Investigative and Evaluative Activities (IEAs) | <ul style="list-style-type: none"> • Children investigate a collection of different shell structures including packaging. Use questions to develop children’s understanding e.g. <i>What is the purpose of the shell structure – protecting, containing, presenting? What material is it made from? How has it been constructed? Are the materials recyclable or reusable? How has it been stiffened i.e. folded, corrugated, ribbed, laminated? What size/shape/colour is it? What information does it show and why? How attractive is the design?</i> • Children take a small package apart identifying and discussing parts of a net including the tabs e.g. <i>How are different faces of the package arranged? How are the tabs used to join the ‘free’ edges of the net?</i> • Evaluate existing products to determine which designs children think are the most effective. Provide opportunities for the children to judge the suitability of the shell structures for their intended users and purposes. Discuss graphics including colours/impact of style/logo/size of font e.g. <i>What do you prefer and why? What style of graphics and lettering might we want to include in our product to meet users’ preferences and its intended purpose? Which packaging might be the best for...?</i> |
| Focused Tasks (FTs) | <ul style="list-style-type: none"> • Demonstrate simple drawing software such as Microsoft Word. Ask children to explore the interface and drawing tools to practise drawing and manipulating shapes such as rectangles, squares, ellipses, trapezoids and triangles. • Ask children to use the software to open existing drawings including nets and to draw nets of their own, using gridlines and pre-shaped tools. • Let the children explore and be guided to try out different fill and font tools to become familiar with the graphic design aspects of the available software to achieve the desired appearance of their products. |

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| | <ul style="list-style-type: none"> • Practise making nets out of card, joining flat faces with masking tape to create 3-D shapes. Experiment with assembling pre-drawn nets in numerous ways using scoring, cutting and assembling techniques. Allow children to construct a simple box and show how a window can be cut out and acetate sheet added. |
| Design, Make and Evaluate Assignment (DMEA) | <ul style="list-style-type: none"> • Develop a design brief with the children within a context which is authentic and meaningful, for example Can you design, make and evaluate a money box for your savings? Can you design, make and evaluate a tomb for an Egyptian Lego figure? • Discuss the uses and purposes of their shell structure e.g. <i>What does the product need to do? Who is it aimed at? How will the purpose and user affect your design decisions?</i> Agree on design criteria that can be used to guide the development and evaluation of children’s products e.g. <i>How will we know that we have designed and made successful products?</i> • Ask the children to develop a design using computer-aided design (CAD) software to create nets, addressing the needs of the user and the purpose. • Using computer-aided design (CAD) software ask the children to print out their nets to develop prototypes in order to evaluate and refine their ideas e.g. <i>What will you need to include in your design? How can you improve it? What materials will you use? How will you make sure your product works well and has the right appearance?</i> • Ask children to identify the main stages of making and the appropriate tools and skills they learnt through focused tasks. Encourage the children to work with accuracy, using their computer-aided design (CAD) skills as appropriate. • Evaluate throughout and the final products against the intended purpose and with the intended user, where safe and practical, drawing on the design criteria previously agreed. |
| Additional Resources | DT Association – Project on a Page 3-4 |
| Links | Maths: Shape and Space History: The Egyptian Civilisation Maths: Money |

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| Vocab | <p>shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity</p> <p>marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating font, lettering, text, graphics, decision, evaluating, design brief design criteria, innovative, prototype</p> |
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| | Year 3 |
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| Aspect of DT | Food |
| Focus | Healthy and Varied Diet |
| Investigative and Evaluative Activities (IEAs) | <ul style="list-style-type: none"> • Children investigate a range of food products e.g. the content of their lunchboxes over a week, a selection of foods provided for them, food from a visit to a local shop. Link to the principles of a varied and healthy diet using <i>The Eatwell plate</i> e.g. <i>What ingredients have been used? Which food groups do they belong to? What substances are used in the products e.g. nutrients, water and fibre?</i> • Carry out sensory evaluations on the contents of the food from e.g. a variety of bought food products such as a range of wraps or sandwiches. Record results, for example using a table. Use appropriate words to describe the taste/smell/texture/appearance e.g. <i>How do the sensory characteristics affect your liking for the food?</i> • Gather information about existing products available relating to your product. Visit a local supermarket and/or use the internet. |

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| | <ul style="list-style-type: none"> • Find out how a variety of ingredients used in products are grown and harvested, reared, caught and processed e.g. <i>Where and when are the ingredients grown? Where do different meats/fish/cheese/eggs come from? How and why are they processed?</i> |
| Focused Tasks (FTs) | <ul style="list-style-type: none"> • Learn to select and use a range of utensils and use a range of techniques as appropriate to prepare ingredients hygienically including the bridge and claw technique, grating, peeling, chopping, slicing, mixing, spreading, kneading and baking. • Food preparation and cooking techniques could be practised by making a food product using an existing recipe. • Discuss basic food hygiene practices when handling food including the importance of following instructions to control risk e.g. <i>What should we do before we work with food? Why is following instructions important?</i> |
| Design, Make and Evaluate Assignment (DMEA) | <ul style="list-style-type: none"> • Discuss the purpose of the products that the children will be designing, making and evaluating and who the products will be for, for example Can you design, make and evaluate a healthy packed lunch for a picnic? • Develop and agree on design criteria with the children within a context that is authentic and meaningful. This can include criteria relating to healthy eating and a varied diet e.g. <i>What do you need to consider to make it part of a balanced diet? How do we select the ingredients? How could we make it appealing to eat?</i> • Ask children to generate a range of ideas encouraging realistic responses. • Using discussion, annotated sketches and information and communication technology if appropriate, ask the children to develop and communicate their ideas. • Ask children to consider the main stages in making the food product, before preparing/cooking the product including the ingredients and utensils they will need. • Evaluate as the assignment proceeds and the final product against the intended purpose and user, reflecting on the design criteria previously agreed. Consider what others think of the product when considering how the work might be improved. |
| Additional Resources | DT Association – Projects on a Page 3-4 |
| Links | PSHE: Healthy Eating School Fair Religious/Seasonal Festivals Maths: Measurement |
| Vocab | <p>name of products, names of equipment, utensils, techniques and ingredients</p> <p>texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury</p> |

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| | <p>hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet</p> <p>planning, design criteria, purpose, user, annotated sketch, sensory evaluations</p> |
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| End Points Y3 | Assessment at end of each topic |
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| Design | <ul style="list-style-type: none"> • To identify a purpose and establish a criteria for a successful product • To explore, develop and communicate design proposals by modelling ideas. • To use a variety of mediums including discussion and research to effectively communicate ideas throughout the design process. |
| Make | <ul style="list-style-type: none"> • To select and use appropriate tools and techniques for making their product. • To measure, mark out, cut, score and assemble components with increasing accuracy • To use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including IT. |
| Evaluating & Technical Knowledge | <ul style="list-style-type: none"> • Evaluate the ongoing work and the final product with reference to the design criteria • Take into account others' view • Know and use technical vocabulary relevant to the project. |
| Cooking and Nutrition | <ul style="list-style-type: none"> • To know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in the NHS Eatwell Guide. • To learn and understand how to prepare simple dishes safely and hygienically with a heat source. |
| Enrichment Opportunities | Visit to Pizza Express or Tesco |

