

Design and Technology Overview		
EYFS – Foundation Stage One		
Creating with Materials	Construction	
<p><b>Key Concept – Joining / Exploring Materials</b></p> <p><b>Curricular Goal:</b> Pupils can explore simple joining techniques through a range of given materials to begin to develop their ideas</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to explore different materials freely, to develop their ideas about how to use them and what to make</li> <li>To be able to develop their own ideas and then decide which materials to use to express them</li> <li>To be able to join different materials and explore different textures</li> </ul>	<p><b>Key Concept – Building</b></p> <p><b>Curricular Goal:</b> Pupils can use a range of blocks and construction materials to build a range of ‘small worlds’ imaginatively</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park</li> <li>To be able to explore different materials freely, to develop their ideas about how to use them and what to make</li> </ul>	
EYFS – Foundation Stage Two		
Creating With Materials		
<p><b>Key Concept – Joining / Exploring Materials / Safety</b></p> <p><b>Curricular Goal:</b> Pupils can use their imaginations to create a final piece, joining a variety of materials together and explain what they have made and how</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture form and function</li> <li>To be able to share their creations, explaining the process they have used</li> <li>To be able to make use of props and materials when role-playing characters in narratives and stories.</li> </ul>		
Year 1		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b></p> <p><b>Curricular Goal:</b> Pupils can design and make a book mark</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product, following a criteria</li> <li>To be able to talk about own and pre-existing products saying what is good or bad about them</li> <li>To be able to use pictures and words when planning</li> <li>To be able to cut fabric correctly and safely using a given tool</li> <li>To be able to join fabrics together using glue and a running stitch</li> </ul>	<p><b>Key Concept – Hygiene and Safety / Healthy</b></p> <p><b>Curricular Goal:</b> Pupils can combine ingredients to make a sandwich for a celebration picnic</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product, following a criteria</li> <li>To be able to talk about own and pre-existing products saying what is good or bad about them</li> <li>To be able to use pictures and words when planning</li> <li>To be able to cut, peel and grate ingredients safely and hygienically</li> <li>To know that food originates from places other than a shop.</li> </ul>	<p><b>Key Concept – Strengthening</b></p> <p><b>Curricular Goal:</b> Pupils can design and construct a maze toy with a travelling sphere</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product, following a criteria</li> <li>To be able to talk about own and pre-existing products saying what is good or bad about them</li> <li>To be able to use pictures and words when planning</li> <li>To be able to make a maze toy with a travelling sphere</li> <li>To be able to make a product stronger</li> </ul>
Year 2		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b></p> <p><b>Curricular Goal:</b> Pupils can design and make bunting for a purpose.</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product following a criteria and plan what to do next</li> <li>To be able to describe how own and pre-existing products work, evaluating what went well and what could be done differently</li> <li>To be able to plan a design using pictures, diagrams, models, mock-ups, words and ICT</li> <li>To be able to cut and join textiles together using a running stitch, over sewing or glue</li> <li>To be able to decorate using a range of items including buttons, sequins, beads and ribbons</li> </ul>	<p><b>Key Concept – Hygiene and Safety</b></p> <p><b>Curricular Goal:</b> Pupils can design and bake a biscuit beginning to explain what went well and what could be done differently</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product following a criteria and plan what to do next</li> <li>To be able to describe how own and pre-existing products work, evaluating what went well and what could be done differently</li> <li>To be able to plan a design using pictures, diagrams, models, mock-ups, words and ICT</li> <li>To be able to weigh ingredients to use in a recipe</li> <li>To be able to prepare food safely and hygienically and describe what this means</li> <li>To be able to rub butter and flour together to make a biscuit</li> <li>To be able to identify the original sources of some common foods.</li> </ul>	<p><b>Key Concept – Strengthening</b></p> <p><b>Curricular Goal:</b> Pupils can plan, design and construct a moving vehicle using wheels and axles beginning to explain what went well and what could be done differently</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to think of my own ideas for a design product for myself following a criteria and plan what to do next</li> <li>To be able to describe how own and pre-existing products work, evaluating what went well and what could be done differently</li> <li>To be able to plan a design using pictures, diagrams, models, mock-ups, words and ICT</li> <li>To be able to construct a vehicle using wheels and axles</li> <li>To be able to make a model stronger and more stable</li> </ul>
Year 3		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b></p> <p><b>Curricular Goal:</b> Pupils can plan, design and make a sash for a purpose evaluating their own and pre-existing products</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to create a design that meets a range of requirements considering the equipment and tools needed when planning</li> <li>To be able to evaluate own and pre-existing products, suggesting what could be changed to improve a design, beginning to link this to a design brief</li> <li>To be to plan a design using an accurately labelled diagram, models, mock-ups and in words</li> <li>To be able to accurately measure, mark out, cut and join materials together using a running stitch, over-sewing and back stitch.</li> <li>To be able to decorate by selecting items with differing textures and properties considering their influence on the final product</li> </ul>	<p><b>Key Concept – Hygiene and Safety / Healthy</b></p> <p><b>Curricular Goal:</b> Pupils can follow a recipe to bake bread, evaluating their own and pre-existing products</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to create a design that meets a range of requirements considering the equipment and tools needed when planning</li> <li>To be able to evaluate own and pre-existing products, suggesting what could be changed to improve a design, beginning to link this to the design brief</li> <li>To be able to plan a design using an accurately labelled diagram, models, mock-ups and in words</li> <li>To be able to prepare food safely and hygienically and explain what this means</li> <li>To be able to weigh out ingredients and follow a given recipe to bake bread</li> <li>To be able to knead and shape dough to bake bread</li> </ul>	<p><b>Key Concept – Strengthening</b></p> <p><b>Curricular Goal:</b> Pupils can investigate how to strengthen a bridge by stiffening a given part, or reinforcing a part of the structure and evaluate how successful this was</p> <p><b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to create a design that meets a range of requirements considering the equipment and tools needed when planning</li> <li>To be able to evaluate their own and pre-existing products, suggesting what could be changed to improve a design, beginning to link this to the design brief</li> <li>To be to plan a design using an accurately labelled diagram, models, mock-ups and in words</li> <li>To be able to strengthen a product using a range of stiffening or reinforcing techniques</li> <li>To be able to use the ‘Cargo Bridge’ software to explore strengthening techniques</li> </ul>

Year 4		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b>  <b>Curricular Goal:</b>  Pupils can plan and design a panel for a patchwork quilt evaluating the appearance and usability of their own and pre-existing products  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate more than one idea for how to create a product</li> <li>To be able to gather information to help design a successful product by asking other’s views</li> <li>To be able to suggest improvements to develop and refine a planned idea</li> <li>To be able to produce a detailed plan with labelled diagrams, a written explanation and a step-by-step guide</li> <li>To be able to evaluate the appearance and usability of own and pre-existing products explaining how the design could be improved linking to the design brief</li> <li>To be able to accurately measure, mark out, cut and join materials together using a running stitch, over-sewing, back stitch or fastenings</li> <li>To be able to measure objects to apply using an applique</li> </ul>	<p><b>Key Concept – Hygiene and Safety</b>  <b>Curricular Goal:</b>  Pupils can bake a cake focusing on selecting ingredients to influence the flavour and presentation of the cake, evaluating the appearance of own and others  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate more than one idea for how to create a product</li> <li>To be able to gather information to help design a successful product by asking other’s views</li> <li>To be able to suggest improvements to develop and refine a planned idea</li> <li>To be able to produce a detailed plan with labelled diagrams, a written explanation and a step-by-step guide</li> <li>To be able to evaluate the appearance and usability of own and pre-existing products explaining how the design could be improved linking to the design brief</li> <li>To be able to prepare food safely and hygienically and explain what this means</li> <li>To be able to weigh out ingredients and follow a given recipe to bake a cake</li> <li>To be able to cream butter and sugar together</li> <li>To be able to select ingredients to influence the flavour and presentation of a cake</li> </ul>	<p><b>Key Concept – Technology</b>  <b>Curricular Goal:</b>  Pupils can create an alert system for an avalanche using the Crumble Kit evaluating the usability of the product  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate more than one idea for how to create a product</li> <li>To be able to gather information to help design a successful product by asking other’s views</li> <li>To be able to suggest improvements to develop and refine a planned idea</li> <li>To be able to produce a detailed plan with labelled diagrams, a written explanation and a step-by-step guide</li> <li>To be able to evaluate the appearance and usability of own and pre-existing products explaining how the design could be improved linking to the design brief</li> <li>To be able to use the Crumble Kit to create an alert system linking in scientific knowledge of lights, switches and buzzers</li> </ul>
Year 5		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b>  <b>Curricular Goal:</b>  Pupils can plan, design and make a bracelet ensuring it is fit for purpose whilst considering the aesthetic qualities and functionality.  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate a range of ideas after collating relevant user views</li> <li>To be able to produce a detailed plan with step-by-step instructions, cross sectional diagrams and prototypes</li> <li>To be able to suggest alternative plans considering the positive aspects and drawbacks of each</li> <li>To be able to consider the aesthetic qualities and functionality of my own work</li> <li>To be able to evaluate the appearance and function of own and pre-existing products against the original criteria saying whether it is fit for purpose and explaining how the design could be improved considering materials and methods used</li> <li>To be able to measure and cut materials with precision</li> <li>To be able to use and apply previous taught stitches and learn a blanket stitch</li> <li>To be able to join materials with fixed and moving joints</li> </ul>	<p><b>Key Concept – Hygiene and Safety / Healthy</b>  <b>Curricular Goal:</b>  Pupils can make a sausage roll observing the correct food hygiene processes and assess any improvements in practice that could have been made  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate a range of ideas after collating relevant user views</li> <li>To be able to produce a detailed plan with step-by-step instructions, cross sectional diagrams and prototypes</li> <li>To be able to suggest alternative plans considering the positive aspects and drawbacks of each</li> <li>To be able to use a range of tools and equipment precisely</li> <li>To be able to consider the aesthetic qualities and functionality of my own work when making</li> <li>To be able to evaluate the appearance and function of own and pre-existing products against the original criteria saying whether it is fit for purpose explaining how the design could be improved considering materials and methods used</li> <li>To be able to handle and cook raw meat in accordance with food hygiene guidance</li> <li>To be able to make pastry and combine with a suitable filling to make rolls</li> </ul>	<p><b>Key Concept – Technology</b>  <b>Curricular Goal:</b>  Pupils can construct a vehicle with safety features using the Crumble Kit whilst considering its functionality and assessing whether it is fit for purpose  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to generate a range of ideas after collating relevant user views</li> <li>To be able to produce a detailed plan with step-by-step instructions, cross sectional diagrams and prototypes</li> <li>To be able to suggest alternative plans considering the positive aspects and drawbacks of each</li> <li>To be able to use a range of tools and equipment precisely</li> <li>To be able to consider the aesthetic qualities and functionality of my own work</li> <li>To be able to evaluate the appearance and function of own and pre-existing products against the original criteria saying whether it is fit for purpose explaining how the design could be improved considering materials and methods used</li> <li>To be able to use the Crumble Kit to construct a vehicle with safety features linking in scientific knowledge of motors</li> <li>To be able to evaluate the effectiveness of a design (via blogging)</li> </ul>
Year 6		
Textiles	Food Technology	Construction
<p><b>Key Concept – Joining</b>  <b>Curricular Goal:</b>  Pupils can work within a budget to produce a cushion for commercial use - justifying their choices based upon sustainability, functionality and costing  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to use market research to inform and produce a detailed design plan with cross-sectional diagrams and computer generated designs, working within constraints and refining and justifying plans as necessary</li> <li>To be able to use a range of tools and equipment with precision and skill</li> <li>To be able to continually assess the aesthetic qualities and functionality of the product during the making phase, refining details as necessary</li> <li>To be able to evaluate the appearance and test the function of own and pre-existing products against the original criteria saying whether it is fit for purpose, explaining how the design could be improved considering materials, methods, sustainability and the production cost</li> <li>To be able to cut materials with precision and skill to refine the finish</li> <li>To be able to use patterns and seam allowances when joining fabrics to make quality products</li> <li>To be able to work within a budget to make a commercial product</li> </ul>	<p><b>Key Concept – Hygiene and Safety / Healthy</b>  <b>Curricular Goal:</b>  Pupils can work within a budget to safely produce a two-course meal for guests justifying their choices based upon sustainability, costing and aesthetic qualities.  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to use market research to inform and produce a detailed design plan with cross-sectional diagrams and computer generated designs, working within constraints and refining and justifying plans as necessary</li> <li>To be able to use a range of tools and equipment with precision and skill</li> <li>To be able to continually assess the aesthetic qualities and functionality of the product during the making phase, refining details as necessary</li> <li>To be able to evaluate the appearance and test the function of own and pre-existing products against the original criteria saying whether it is fit for purpose, explaining how the design could be improved considering materials, methods, sustainability and the production cost</li> <li>To be able to explain how food ingredients should be stored and give reasons</li> <li>To be able to work within a budget to create a two course meal</li> <li>To be able to understand the difference between a sweet and a savoury dish</li> </ul>	<p><b>Key Concept – Strengthening / Technology</b>  <b>Curricular Goal:</b>  Pupils can construct a WWII moving vehicle considering the strength of the product and enhancing with an electrical system using the Crumble Kit justifying their choices based upon its functionality  <b>Learning Objectives:</b></p> <ul style="list-style-type: none"> <li>To be able to use market research to inform and produce a detailed design plan with cross-sectional diagrams and computer generated designs, working within constraints refining and justifying plans as necessary</li> <li>To be able to use a range of tools and equipment with precision and skill</li> <li>To be able to continually assess the aesthetic qualities and functionality of the product during the making phase, refining details as necessary</li> <li>To be able to evaluate the appearance and test the function of own and pre-existing products against the original criteria saying whether it is fit for purpose, explaining how the design could be improved considering materials, methods, sustainability and the production cost</li> <li>To be able to use the Crumble Kit to construct a moving model that fulfils a design criteria that can be enhanced with electrical systems</li> <li>To be able to improve the product by strengthening, stiffening and reinforcing</li> </ul>