



## Guilden Sutton Church of England Primary School

*Love and Justice for All*

# *Design Technology Whole School Curriculum Progression Map*

**Our Christian Values: WISDOM, JUSTICE, COMPASSION, LOVE, FORGIVENESS, FRIENDSHIP**

| Year Group       | Autumn 1  | Autumn 2   | Spring 1  | Spring 2   | Summer 1   | Summer 2 |
|------------------|---|--|---|--|--|----------|
| <b>Reception</b> | <ul style="list-style-type: none"> <li>Develop fine motor skills through finger gym activities using tweezers and tongs to place beads, pom-poms and gems.</li> <li>Threading with wool, string and ribbon using card shapes and beads.</li> <li>Produce Supertato and alien paintings and 3D models of rockets, spacecraft, aliens and planets.</li> <li>Mould clay to create diva lamps and hedgehogs.</li> </ul> |  | <ul style="list-style-type: none"> <li>Sewing valentine hearts using needles and wool.</li> <li>Using scissors to cut out penguins, lanterns, Easter eggs.</li> <li>Creating Chinese lanterns and Hung Bao Lucky Money Bags.</li> <li>Explore floating and sinking through making boats from different materials for the boy and the penguin to return to the Antarctic.</li> <li>Building Great Wall of China and pagodas with blocks and construction resources.</li> </ul> |  | <ul style="list-style-type: none"> <li>Make shakers, drums and instruments to accompany African music. Match tempo to animal's movements.</li> <li>Create dioramas for under the sea.</li> <li>Plan and make bridges for the 3 Billy Goats Gruff using a variety of construction materials.</li> </ul> |          |
|                  | <p><b>Key Vocabulary</b></p> <p>Draw, chop, stick, connect, balance, join, mould, squeeze, push, pull, twist, cut</p>   |  |   |  |  |          |
| <b>1</b>         | <p><b>Puppets – Textiles</b></p> <ul style="list-style-type: none"> <li>Can I make a success criteria?</li> <li>Can I explore and evaluate a range of puppets?</li> <li>Can I explore different ways of joining materials?</li> </ul>   | <p><b>Goldilocks and the 3 bears – Structure</b></p> <ul style="list-style-type: none"> <li>Can I make a success criteria?</li> <li>Can I explore and evaluate a range of existing products?</li> <li>Can I explore the concept and features of structures and the stability of different shapes?</li> </ul> |   | <p><b>Ice pops – Food</b></p> <ul style="list-style-type: none"> <li>Can I make a success criteria?</li> <li>Can I explore and evaluate a range of existing products?</li> <li>Can I explore the different flavours and shapes used for ice pops?</li> </ul> |  |          |

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|   | <ul style="list-style-type: none"> <li>• Can I design and label two different puppets based on my research?</li> <li>• Can I make my design?</li> <li>• Can I evaluate my design?</li> </ul> <p><b>Designer: Vivienne Westwood</b></p>  | <ul style="list-style-type: none"> <li>• Can I design and label two different chairs based on my research?</li> <li>• Can I make my design?</li> <li>• Can I evaluate my design?</li> </ul> <p><b>Designer: Ron Arad</b></p>  | <ul style="list-style-type: none"> <li>• Can I design and label two different ice pops based on my research?</li> <li>• Can I make my design?</li> <li>• Can I evaluate my design?</li> </ul> <p><b>Chef: Mary Berry</b></p>  |
| <p><b><u>Key Vocabulary</u></b></p> <p>Design, evaluate, attach, structure, apply, decoration, mould, stable, stiff, strong, weak, textiles, finger puppet, running stitch,</p>                           |   |   |   |
| <b>2</b>  | <p><b>A healthy snack for Paddington (fruit skewers) - Food</b></p> <ul style="list-style-type: none"> <li>• Can I research other fruit skewers and suggest what I like and dislike about them?</li> <li>• Can I design a fruit skewer that follows a repeating pattern?</li> <li>• Can I prepare a clean area to make my fruit skewer?</li> <li>• Can I cut fruit to the size I require safely using a knife?</li> <li>• Can I construct a fruit skewer following a pattern?</li> <li>• Can I evaluate my finished fruit skewer using the design criteria?</li> </ul> <p><b>Chef: Jamie Oliver</b></p> | <p><b>Design and make a building for the future – Structure</b></p> <ul style="list-style-type: none"> <li>• Can I research how to use boxes and masking tape to create a freestanding structure?</li> <li>• Can I suggest the features I like and dislike about futuristic architecture?</li> <li>• Can I design a structure inspired by my research?</li> <li>• Can I design a structure that can support itself without falling over?</li> <li>• Can I use junk modelling material to create my design?</li> <li>• Can I join materials using masking tape?</li> <li>• Can I evaluate my finished structure using the design criteria?</li> </ul> <p><b>Designer: Zaha Hadid</b></p> | <p><b>Chester/British Value bunting - Textiles</b></p> <ul style="list-style-type: none"> <li>• Can I research different ways to join two materials?</li> <li>• Can I create a Chester collage?</li> <li>• Can I design a piece of bunting inspired by my research?</li> <li>• Can I design a piece of bunting that includes the joining of other materials?</li> <li>• Can I create one of my designs?</li> <li>• Can I join materials using stapling, gluing, safety pins and sewing?</li> <li>• Can I evaluate my finished bunting using the design criteria?</li> </ul> <p><b>Designer: Jasper Conran</b></p> |
| <p><b><u>Key Vocabulary</u></b></p> <p>Design, evaluate, material, construct, prepare, hygienically, structure, joining, technique, skewer, repeating pattern, desired, architecture, fabric, bunting</p> |   |   |   |
| <b>3</b>  | <p><b>Stone Age Spears – Structure</b></p> <ul style="list-style-type: none"> <li>• Can I use historical information and research to design a SA spear?</li> </ul>  | <p><b>Dragon model – Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Can I research reptile patterns and skill for my model?</li> </ul>   | <p><b>Ancient Egyptian Bread – Food</b></p> <ul style="list-style-type: none"> <li>• Can I conduct research to decide on flavours for my bread?</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>• Can I use sketches, diagrams and labels to present my designs?</li> <li>• Can I use different methods of construction to build and attach parts of my model?</li> <li>• Can I select appropriate materials to construct my spear?</li> <li>• Can I test my designs to see if I need to change anything?</li> <li>• Can I evaluate my spear and think of ways to improve it?</li> </ul> <p><b>Designer: Isambard Kingdom Brunel</b></p>   | <ul style="list-style-type: none"> <li>• Can I use sketches, diagrams and labels to present my designs?</li> <li>• Can I use different methods and techniques to attach parts of my model?</li> <li>• Can I select appropriate materials to construct and decorate my model?</li> <li>• Can I create a prototype for my dragon wings?</li> <li>• Can I evaluate my dragon model against the design criteria and think of ways to improve it?</li> </ul> <p><b>Designer: Henry Ford</b></p>  | <ul style="list-style-type: none"> <li>• Can I use sketches, diagrams and labels to present my design?</li> <li>• Can I develop a recipe for my bread?</li> <li>• Can I use techniques to mould and shape my bread?</li> <li>• Can I evaluate my bread and think of ways to improve it?</li> </ul> <p><b>Chef: Paul Hollywood</b></p>   |
| <p><b>Key Vocabulary</b></p> <p>Design, evaluate, research, prototype, material, construct, structure, joining, technique, recipe, spear, Stone Age, size, realistic, sturdy, strength, quantities, flavours, knead, rise,</p> |   |   |   |
| 4  | <p><b>3D Nets to create homes – Structure</b></p> <ul style="list-style-type: none"> <li>• Can I identify different types of nets and state what 3D shapes they make?</li> <li>• Can I understand how boxes are made up, designing nets that will make 3D shapes?</li> <li>• Can I design and develop a product to meet a design brief?</li> <li>• Can I select appropriate materials to use to make my box whilst also selecting other materials to make the product attractive in appearance?</li> <li>• Can I evaluate my ideas against the design criteria and consider improvements to my work?</li> <li>• Can I select and use a range of tools to aid me in cutting, sticking and creating my home?</li> </ul> <p><b>Designer: Norman Foster</b></p> | <p><b>Moving Models – Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Can I develop an understanding of simple pneumatic systems?</li> <li>• Can I work as part of a team to design and make a model monster with at least one moving part controlled by a pneumatic system?</li> <li>• Can I select from and consider the use of a range of materials according to their functional properties?</li> <li>• Can I regularly collaborate with my peers and consider the views of others to improve my work?</li> </ul> <p><b>Designer: James Dyson</b></p> | <p><b>Money containers – Textiles</b></p> <ul style="list-style-type: none"> <li>• Can I demonstrate sufficient understanding and skills in working with textiles to design and make a money container?</li> <li>• Can I complete different designs and identify the different stages of making my money container?</li> <li>• Can I evaluate existing products and test my design to help me select my final design?</li> <li>• Can I make a money container that is functional, fit for purpose and meets their design criteria?</li> <li>• Can I evaluate my final product and can suggest improvements for next time?</li> </ul> <p><b>Designer: Paul Smith</b></p> |
| <p><b>Key Vocabulary</b></p>   |   |   |   |

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|---|--|--|--|
|   | Design, evaluate, research, prototype, material, construct, structure, joining, technique, scale, net, tab, pneumatic pump, pneumatic system, air pressure, compress, syringe, tubing, wallet, purse, running stitch, over stitch  |  |  |
| 5 | <p><b>Viking Longboats – Structure</b></p> <ul style="list-style-type: none"> <li>• Can I research different Anglo Saxon or Viking boats, stating features that I like and dislike?</li> <li>• Can I generate and develop ideas through group discussions and labelled designs?</li> <li>• Can I design and develop a product to meet a design brief?</li> <li>• Can I select from and consider the use of a range of materials according to their functional properties?</li> <li>• Can I regularly collaborate with my peers and consider the views of others to improve my work?</li> <li>• Can I evaluate my ideas against the design criteria and consider improvements to my work?</li> </ul> <p><b>Designer: Alec Issigonis</b></p> | <p><b>Mayan Chocolate bars – Food</b></p> <ul style="list-style-type: none"> <li>• Can I make links to how the Mayans used chocolate?</li> <li>• Can I design and develop a product to meet a design brief?</li> <li>• Can I taste and select good ingredients to use in my chocolate bar?</li> <li>• Can I design an eye-catching wrapper that links to the Mayans?</li> <li>• Can I create a name and logo for my product?</li> <li>• Can I evaluate my ideas against the design criteria and consider improvements to my work?</li> </ul> <p><b>Chef: Heston Blumenthal</b></p> | <p><b>Design a Roller Coaster – Structure/Mechanism</b></p> <ul style="list-style-type: none"> <li>• Can I present my findings from my Disney and roller coaster research?</li> <li>• Can I identify different features of materials and state how they are useful?</li> <li>• Can I design and develop a product to meet a design brief?</li> <li>• Can I make a model of our roller coaster as a marble run, selecting and joining different materials?</li> <li>• Can I create a name and logo for my roller coaster?</li> <li>• Can I regularly collaborate with my peers and consider the views of others to improve my work?</li> <li>• Can I evaluate my ideas against the design criteria and consider improvements to my work?</li> </ul> <p><b>Designer: Antonio Gaudi</b></p> |
|   | <p><b><u>Key Vocabulary</u></b></p> <p>Design, evaluate, research, prototype, material, construct, structure, joining, technique, scale, model, balance, up thrust, hull, oars, sail, mast, packaging, logo, brand, cacao bean, theme, roller coaster, Disneyland</p>  |  |  |
| 6 | <p><b>3D- models related to War topic – Structure</b></p> <ul style="list-style-type: none"> <li>• Can I design and build a replica 3D model using the historical knowledge I have learnt?</li> <li>• Can I select the appropriate materials for my lifelike model?</li> <li>• Can I safely use cutting tools and cohesive devices when building my model?</li> </ul>  | <p><b>Vegetable dishes – Food</b></p> <ul style="list-style-type: none"> <li>• Can I make a vegetable soup that is nutritious and tasty?</li> <li>• Can I design and develop a product to meet a design brief?</li> <li>• Can I select the appropriate equipment and use this carefully?</li> </ul>  | <p><b>Electricity game – Electronics</b></p> <ul style="list-style-type: none"> <li>• Can I research current electrical games?</li> <li>• Can I make links to science circuits learning?</li> <li>• Can I make an electronic circuit to use in my game?</li> </ul>   |

- Can I explain why I used the materials that I have chosen?
- Can I think about the scale of the different features when planning my design?



**Designer: Sir Jonathan Ive**

- Can I explain why I used the vegetables that I have chosen?
- Can I evaluate my ideas against the design criteria and consider improvements to my work?

**Chef: Nadiya Hussain**

- Can I design and develop a product to meet a design brief?
- Can I evaluate my design against the design criteria?

**Designer: Caroline Haslett**

**Key Vocabulary**

Design, evaluate, research, prototype, material, construct, structure, joining, technique, scale, model, scale, size, nutritious, recipe, vegetarian, electronic, circuit, logo, theme, brand, current, battery, buzzer, switch, voltage, conductor