



# Queensgate Foundation Primary School

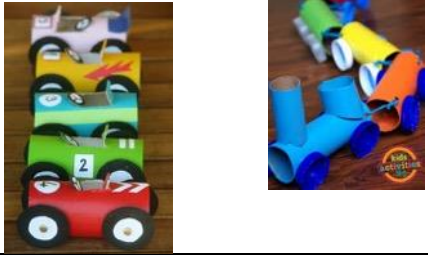
## DT Long Term Plan 2024-25

### Our Vision

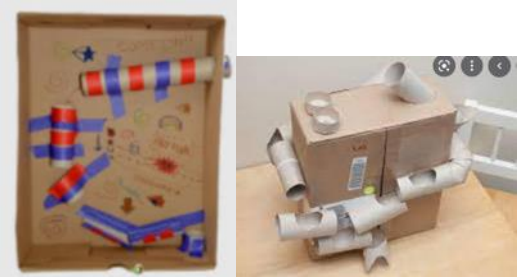
Our vision for Design and Technology at Queensgate is that children are given opportunity to be practical, imaginative and inspired. With D.T becoming increasingly relevant in the technological world we aim for children to feel confident in their ability to take risks, be enterprising and innovative. Children are able to draw on varied disciplines such as maths, science, computing and art in order to create real and relevant solutions to problems. Children will also be instilled with crucial principals of nutrition as well as skills of cooking. This vision is embedded throughout our D.T curriculum.

D.T at Queensgate enables children to develop the knowledge and skills they need to gain creative, practical and technical expertise. D.T supports our children in becoming capable and enterprising citizens that will be able to confidently complete tasks and face challenges in the wider world. Design and Technology also enables children to critique, evaluate and test their ideas allowing them to become resilient and conscientious in their approach to designing and making.

## EYFS

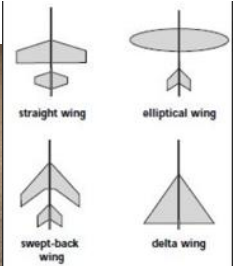
|     | Theme                         | SKILLS COVERED                                                         | Overview                                                                                                                                                                                         | NOTES |
|-----|-------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT | <b><u>Harvest</u></b>         | Design<br>Make<br>Evaluate<br>Technical knowledge – food and nutrition | Children to design their own bread looking at pictures of a variety of bread and then make their own.<br><br> |       |
| SPR | <b><u>Amazing Animals</u></b> | Design<br>Make<br>Evaluate                                             | Children to design their own junk modelling animal with a moving part and then make it.<br><br>               |       |
| SUM | <b><u>Ticket to Ride</u></b>  | Design<br>Make<br>Evaluate                                             | Children to make their own transport vehicle.<br><br>                                                       |       |

## Year 1

|       | Theme                              | Skills Covered                                                                                                                                                                                             | Overview                                                                                                                                                                                                                               | Notes |
|-------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT 2 | <b><u>Victorian Toys</u></b>       | <b>Materials and Structures:</b><br>Generating ideas<br>Designing<br>Planning<br>Selecting tools<br>Researching products<br>Cutting<br>Shaping<br>Joining<br>Explaining choices<br>Suggesting Improvements | Children are to design and make a marble run toy for a Victorian toy.<br>                                                                           |       |
| SPR 1 | <b><u>Fruit and Vegetables</u></b> | <b>Cookery:</b><br>Cutting<br>Peeling<br>Grating<br>Health and Safety<br>Cleaning                                                                                                                          | Children will prepare and sample fruits and vegetables. They will describe the tastes and textures as well as finding out where they come from.<br> |       |

|       |                           |                                                                                                                                              |                                                                   |  |
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| SUM B | <u><b>Lighthouses</b></u> | <b>Mechanisms:</b><br>Designing<br>Planning<br>Joining materials<br>Measuring<br>Identify differences in material<br>Suggesting Improvements | Children are to design and make a lighthouse with a movable part. |  |
|-------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--|

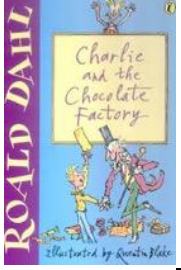
## Year 2

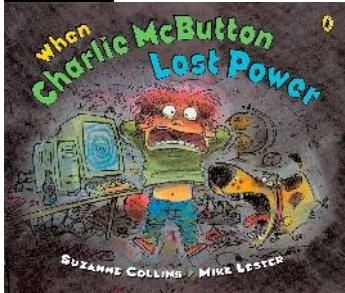
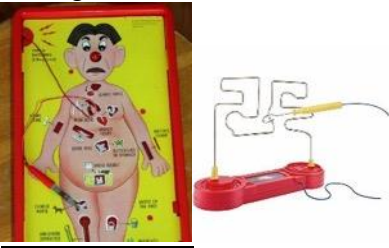
|       | Theme                         | SKILLS COVERED                                                                                                                                         | Other relevant Artists/ links/resources                                                                                                                                                                                                                                | NOTES |
|-------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT 2 | <b><u>Gliders</u></b>         | <b>Materials and Structures:</b><br>Generating ideas<br>Planning<br>Designing<br>Joining<br>Selecting Materials<br>Measuring<br>Suggesting Improvement | Children will be designing and making their own functioning glider model.<br><br>                |       |
| SPR 1 | <b><u>Fire Engines</u></b>    | <b>Mechanisms:</b><br>Generating ideas<br>Planning<br>Designing<br>Using wheels and axles<br>Suggesting Improvements                                   | Children will design and make their own fire engine with wheels that allow it to move.<br><br>  |       |
| SUM 2 | <b><u>Moving Pictures</u></b> | <b>Mechanisms:</b><br>Generating ideas<br>Planning<br>Designing<br>Using sliders and Levers<br>Suggesting Improvements                                 | Children will use levers and sliders to create moving castle pictures in line with their castle topic.                                                                                                                                                                 |       |

## Year 3

|       | Theme                                        | SKILLS COVERED                                                                                                                                    | Other relevant Artists/ links/resources                                                                                                                                                                                                                              | NOTES |
|-------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT 2 | <b><u>Pinch Pots</u></b>                     | <b>Mechanisms and Structures:</b><br>Researching<br>Designing<br>Making strong structures<br>Choosing appropriate materials<br>Joining<br>Cutting | Children will create stone age pinch pots for cave men and women in line with their stone age history topic.<br><br>                                                              |       |
| SPR 1 | <b><u>Making Muscles</u></b>                 | <b>Mechanisms:</b><br>Researching<br>Designing<br>Using Linkages to create movement<br>Selecting appropriate materials                            | Children will create loving arm and hand muscles for people that need replacement limbs.<br><br>                                                                                 |       |
| SPR 1 | <b><u>Healthy Eating: Romanian Boats</u></b> | <b>Nutrition:</b><br>Hygiene<br>Selecting ingredients<br>Varied Diet<br>Food Production<br>Cutting<br>Peeling<br>Grating<br>5 a day               | Children will learn about having a varied, healthy diet and where it comes from. They will learn about this in relation to the ingredients in their<br><br><br><br>salad boats. |       |

## Year 4

|       | Theme                                                                                                                                                                                                                                                                                                            | SKILLS COVERED                                                                                                                                                                                                                 | Overview                                                                                                                                                                                                     | NOTES |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT 1 | <b>Charlie and the Chocolate Factory</b><br><br><br>Quentin Blake<br><a href="https://www.quentinblake.com/">https://www.quentinblake.com/</a> | <b>Cookery:</b><br>Food preparation<br>Hygiene/safety<br><br><b>Materials/Structures:</b><br>Designing<br>Planning<br>Assembly<br>Beginning to use computers for design<br><br>Evaluating product for changes and improvements | Children to use chocolate bars as inspiration to design and make their own chocolates and chocolate bar wrappers.<br><br> |       |
| SPR 1 | <b>Habitats</b><br>                                                                                                                                                                                                            | <b>Materials/ Structures:</b><br>Designing<br>Planning<br>Assembly<br>Making things strong<br>Selecting materials<br>Joining Materials<br><br>Evaluating product for changes and improvements                                  | Children use their knowledge of Habitats learnt in science to design and make their own animal feeder.<br><br>           |       |

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| SUM 1 | <p><b>Electricity</b></p>  | <p><b>Electrical Systems:</b><br/>Using a number of components to make a circuit</p> <p><b>Mechanisms:</b><br/>Use appropriate tools<br/>Make alterations if a product is not fit for purpose<br/>Trying new ideas<br/>Creating linkages</p> | <p>Children are to use their knowledge of circuits gained in science to design and make functional electrical board games.</p>  |  |
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## Year 5

|          | Theme                                           | SKILLS COVERED                                                                                                                                                                                                                                                                                                                                                                                                  | Other relevant Artists/ links/resources                                                                                                                                                                                                                                                                                                                                                                                                         | NOTES |
|----------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| AUT 1    | <b>Hansel and Gretel: Pop-up Book</b>           | <ul style="list-style-type: none"> <li>• create own design criteria</li> <li>• have a range of ideas</li> <li>• produce a logical, realistic plan and explain it to others.</li> <li>• make design decisions considering time and resources.</li> <li>• clearly explain how parts of product will work.</li> <li>• model and refine design ideas by making prototypes and using pattern pieces</li> </ul>       | <p>Investigate and learn about the work of Lothar Meggendorfer (1847-1925)</p> <div style="display: flex; justify-content: space-around;">   </div>                                                                                                                       |       |
| Spring 1 | <b>Invaders and Settlers – The Anglo-Saxons</b> | <p>The Bayeux Tapestry: Design and draw a scene. Create scene using tapestry skills.</p> <ul style="list-style-type: none"> <li>• create own design criteria</li> <li>• have a range of ideas</li> <li>• produce a logical, realistic plan and explain it to others.</li> <li>• use cross-sectional planning and annotated sketches</li> <li>• make design decisions considering time and resources.</li> </ul> | <p><a href="https://www.historyforkids.net/bayeux-tapestry.html">https://www.historyforkids.net/bayeux-tapestry.html</a></p> <p><a href="https://www.english-heritage.org.uk/learn/histories/1066-and-the-norman-conquest/the-kids-tapestry/">https://www.english-heritage.org.uk/learn/histories/1066-and-the-norman-conquest/the-kids-tapestry/</a></p>  |       |

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| <p>Summer<br/>2</p> | <p><b>Explorers: Earth and Space- Design a Mars Rover</b></p> | <ul style="list-style-type: none"> <li>• use internet and questionnaires for research and design ideas</li> <li>• take a user's view into account when designing</li> <li>• begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose</li> <li>• create own design criteria</li> <li>• have a range of ideas</li> <li>• produce a logical, realistic plan and explain it to others.</li> <li>• use cross-sectional planning and annotated sketches</li> <li>• clearly explain how parts of product will work.</li> </ul> | <div data-bbox="1196 220 1657 614" data-label="Image"> </div> <p><a href="https://spaceplace.nasa.gov/">https://spaceplace.nasa.gov/</a></p> <p><a href="https://www.funkidslive.com/learn/deep-space-high/destination-mars/designing-mars-rover/">https://www.funkidslive.com/learn/deep-space-high/destination-mars/designing-mars-rover/</a></p> |  |
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Year 6

|       | Theme | SKILLS COVERED | Other relevant Artists/ links/resources | NOTES |
|-------|-------|----------------|-----------------------------------------|-------|
| AUT 1 |       |                |                                         |       |
| AUT 2 |       |                |                                         |       |
| SUM 2 |       |                |                                         |       |

[https://www.data.org.uk/media/3226/are-you-really-teaching-dtv2\\_x264.mp4](https://www.data.org.uk/media/3226/are-you-really-teaching-dtv2_x264.mp4)