

## Quadring Primary School Design and Technology Bi-Annual Overview

Specific designers to be focused on this term. Specific books to be focused on this term.

Specific Educational trips/visits in school this term. Specific projects to take place this term.

| KUW                                 | Autumn Term 1                                                                                                                                                                                                                                                         | Autumn Term 2                                                                                                                                                                                                                                                                                                                                                                                          | Spring Term 3                                                                                                                                                                                                                                                                    | Spring Term 4                                                                                                                                                                                                                                                                                                              | Summer Term 5                                                                                                                                                                                                                                              | Summer Term 6                                                                                                                                                                                                                                       |
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| <u>Orchard (EYFS)</u><br><br>Year A | Once Upon a Time & Settling in<br><br>Three pigs' houses – 1, 2<br>Shape houses (2D shape) – 1, 2<br>Jack's ladder to the clouds STEM – 1, 2<br>Role-playing traditional tales – 3, 4<br>The Gingerbread Man (purplemash ICT) – 1, 2<br>Self-portraits (paint) – 1, 2 | All About Me & Celebrations<br><br>"Funnybones" Halloween skeleton crafts – 1, 2<br>Christmas crafts – 1, 2<br>Nativity – 3<br>Diwali sand art – 1, 2<br>Mendhi hand patterns – 1, 2<br>Dipal's Divali: Diva lamp modelling – 1, 2<br>Poppy pin wheel flower making & Poppy drawings (i-pad) – church visit – 1, 2<br>Natural object face creations (Maths) – 1, 2<br>Seasons tree calendars – 1, 2, 6 | What is out there?<br><br>First name paper rockets – 1, 2<br>Recycled rocket craft – 1, 2<br>2D shape rocket pictures – 1, 2<br>Aliens love underpants wax crayon science designs – 1, 2<br>Whatever Next story role-play & bear props – 3, 4<br>Burns Night Paper Tartan – 1, 2 | Growing and Changing<br><br>Family Portraits – 6<br>Easter crafts – 1, 2<br>Natural picture collages – 1, 2<br>Nature area visit – leaf rubbings/conker printing – 1, 2<br>St David's Day Daffodil craft – 1, 2<br>St Patrick's Day Tissue paper shamrocks – 1, 2<br>"My Mum": Mother's Day Flower bouquet printing – 1, 2 | On the farm with Peter Rabbit<br><br>Animal finger puppets – 1, 2<br>Beatrix Potter story role-play – 3, 4<br>Farm animal finger puppets – 1, 2, 3, 4<br>Favourite animal drawings – 6<br>"The Tale of Jeremy Fisher" Frog life cycle hand printing – 1, 2 | Our Beautiful World<br><br>Under the sea crafts – 1, 2<br>Animal habitats – 1, 2<br>Under the sea crafts – 1, 2<br>"The Sand Dragon"; Sand sculptures – 1, 2<br>Animal habitats – nature reserve visit – 1, 2<br>Different habitats building – 1, 2 |
| <u>Orchard (EYFS)</u><br><br>Year B | Fairy tales & Settling in<br><br>Fairy tale character collages – 1, 2<br>Shape houses (2D shape) – 1, 2<br>Jack's ladder to the clouds STEM – 1, 2                                                                                                                    | People Who Help Us & Celebrations<br><br>"Funnybones" Halloween skeleton crafts – 1, 2<br>Christmas crafts – 1, 2<br>Nativity – 3<br>Dipal's Divali: Diva lamp modelling – 1, 2<br>Diwali sand art – 1, 2                                                                                                                                                                                              | Dinosaurs<br><br>Dinosaur sock puppet – 1, 2<br>Soap fossils – 1, 2<br>Burns Night Paper Tartan – 1, 2<br>"Harry and the dinosaurs at the                                                                                                                                        | Plants & Mini-beasts<br><br>Easter crafts – 1, 2<br>Nature area visit Natural picture collages – 1, 2<br>St David's Day Daffodil craft – 1, 2<br>St Patrick's Day Tissue paper shamrocks – 1, 2                                                                                                                            | Julia Donaldson<br><br>Julia Donaldson story role-play – 3, 4<br>Nature area visit – Stickman crafts – 1, 2<br>"Room on the Broom" STEM challenge – 1, 2                                                                                                   | At the Seaside<br><br>"The Sand Dragon"; Sand sculptures – 1, 2<br>Punch and Judy crafts and storytelling – 1, 2, 3, 4<br>Different habitats building – 1, 2                                                                                        |

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|  | <p>Role-playing fairy tales – 3, 4</p> <p>"The princess and the pea" scissor control mattress – 1, 2</p> <p>Self-portraits (paint) – 1, 2</p> <p>"The colour monster" collage – 1, 2</p> <p>"The Dot" whole school display – 1, 2</p> | <p>Mendhi hand patterns – 1, 2</p> <p>Poppy pin wheel flower making &amp; Poppy drawings (i-pad) – church visit – 1, 2</p> <p>Natural object face creations (Maths) – 1, 2</p> <p>Seasons tree calendars – 1, 2, 6</p> <p>Firework chalk drawings – 1, 2</p> | <p>museum" hieroglyphics – 1, 2</p> | <p>"My Mum": Mother's Day Flower bouquet printing – 1, 2</p> <p>Easter crafts – 1, 2</p> | <p>"The Gruffalo's child": charcoal drawings on sand paper – 1, 2</p> | <p>Under the sea animal drawings – 1, 2, 6</p> |
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Continuous provision areas lend themselves to encouraging children to model make, build and construct with a variety of materials. Lots of encouragement given to developing their own work and sharing their creations with their class each week.

### Expressive Arts and Design

#### ELG: Creating with Materials

Children at the expected level of development will:

1. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;
2. Share their creations, explaining the process they have used;
3. Make use of props and materials when role playing characters in narratives and stories.

#### ELG: Being Imaginative and Expressive

Children at the expected level of development will:

4. Invent, adapt and recount narratives and stories with peers and their teacher;
5. Sing a range of well-known nursery rhymes and songs;
6. Perform songs, rhymes, poems and stories with others, and – when appropriate – try to move in time with music.

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|                                                | Autumn Term 1                                            | Autumn Term 2                                                                                           | Spring Term 3                                                                     | Spring Term 4                                                             | Summer Term 5                                                                             | Summer Term 6                                                                 |
|------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Robins Y1 &amp; Y2</b><br><br><b>Year A</b> | Fighting Fit!<br><br>ID, 2D<br>Braille (Using Chickpeas) | Food and Celebrations<br><br>ID, 2D, IM, 2M<br>Design a Healthy Meal<br>Cooking (based on Celebrations) | Toys from the past<br><br>IM, 2M, IE, 2E<br>Design a Toy (Using Leavers/ Pulleys) | Homes<br><br>IM, 2M, IT<br>Design a Home (Based on The Three Little Pigs) | Around the World<br><br>ID, 2D, 2E                                                        | Global Gardens<br><br>2D, IT, 2T<br>Design a Garden Plant Pot (using sliders) |
| <b>Robins Y1 &amp; Y2</b><br><br><b>Year B</b> | Our families<br><br>ID, 2D<br>Family Crest               | The UK<br><br>ID, 2D, IM, 2M                                                                            | Africa<br><br>ID, 2D, IM, 2M, 2E<br>Maasai Collar<br>Maasai Mud Hut               | Africa<br><br>ID, 2D, IM, 2M, 2E<br>African Drum                          | Ship Ahoy! (America)<br><br>2D, IM, 2M, IT, 2T<br>Design a way to get a ship into the sea | Fire<br><br>ID, 2D, IM, 2M, 2E<br>Making Tudor Houses<br>Cooking              |

### KSI National curriculum objectives

#### Design

**ID.** Design purposeful, functional, appealing products for themselves and other users based on design criteria

**2D.** Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

#### Make

**IM.** Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

**2M.** Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

#### Evaluate

**IE.** Explore and evaluate a range of existing products

**2E.** Evaluate their ideas and products against design criteria

#### Technical knowledge

**IT.** Build structures, exploring how they can be made stronger, stiffer and more stable

**2T.** Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products

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| <p>Golden Eagles<br/>Y3/Y4</p> <p>Year A</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>Romans</p> <p>Design a Roman Road<br/>Roman Catapult (lolly sticks)<br/>Make a musical instrument (Science)<br/>The Collection/ Usher gallery<br/>IM, 2M, ID</p>                                                         | <p>The UK</p> <p>Classis UK dishes (pancake day)<br/>Design and make a wormery (Science link)<br/>IM, 2M, 2E</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Ancient Egypt</p> <p>Egyptian headdress<br/>Hieroglyphics cross stitch<br/>3E, IM, 2M, 2E</p>                                                                            |
| <p>Year B</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Stone Age to Iron Age</p> <p>Design and create a Woolly Mammoth (milk bottle)<br/>Make a fossil (plaster of paris)<br/>Electricity – scribble bot (Science link)<br/>Design a game (computing link)<br/>IM,2M,2E, 2M</p> | <p>North and South America</p> <p>Design a car (digital)<br/>Design a replica of the Empire State Building<br/>IM,2M,2E, 2M, 3E</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>World War Two (WWII)</p> <p>Wartime recipes<br/>Design a suitcase for a refugee<br/>Anderson shelter<br/>Wartime technology<br/>IM,2D,2M,2E, 2M<br/>William Paterson</p> |
| <p><b>KS2 National Curriculum Objectives</b></p> <p><b>Design</b></p> <p><b>ID.</b> Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.</p> <p><b>2D.</b> Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p> <p><b>Make</b></p> <p><b>IM.</b> Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</p> <p><b>2M.</b> Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.</p> |                                                                                                                                                                                                                             | <p><b>Evaluate</b></p> <p><b>IE.</b> Investigate and analyse a range of existing products</p> <p><b>2E.</b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p><b>3E.</b> Understand how key events and individuals in design and technology have helped shape the world.</p> <p><b>Technical knowledge</b></p> <p><b>IT.</b> Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</p> <p><b>2T.</b> Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</p> <p><b>3T.</b> Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p> <p><b>4T.</b> Apply their understanding of computing to program, monitor and control their products</p> |                                                                                                                                                                             |

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| <p><u>Barn Owls Y5/Y6</u></p> <p>Year A</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Japan</p> <p>Japanese cookery (miso soup, sushi)<br/>Decorate recipe – <u>Moosewood Cookbook</u><br/>Design and make earthquake proof structure (using art straws)<br/>2D IM 2M IT</p> | <p>Quadring (Victorians)</p> <p>Bridges and Brunel<br/>Research, design, create and evaluate bridges<br/>IM, 2M, ID, 2D, IE, 2E, 3E IT<br/><u>Brunel</u></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Ancient Greece</p> <p>Parachutes (egg parachute)<br/>Gears (bike gear challenge), pulleys (make pulley), cams (moving cam toys), levers (mini mangonel)<br/>Greek inventions e.g pulleys<br/>IM 2M, 2D, 2E, 3E, 2T</p> |
| <p>Year B</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Anglo-Saxons</p> <p>Anglo Saxon cookery (honey oatcakes) and seasonality<br/>Weaving<br/>IM 2M</p>                                                                                     | <p>Vikings</p> <p>Designing Viking jewellery<br/>Designing and making Viking longboats<br/>Viking cookery (soup and flatbread)<br/>ID, 2D, IM, 2M, 2E, 3E</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>Maya civilisation</p> <p>Circuits<br/>Maya cookery (corn tortilla)<br/>3T</p>                                                                                                                                          |
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