

# Design and Technology Curriculum: Long Term Overview with Careers Alignment and Enrichment Opportunities



|                               | Autumn                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  | Spring                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                         | Summer                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nursery*                      | <b>What makes me special?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                                           | <b>What do I celebrate?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                                                  | <b>Can you tell me a tale?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                                    | <b>What do you see on the Farm?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                                                 | <b>Who are our helping heroes?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                                                                                                 | <b>Where shall we travel to?</b><br><i>Physical Development</i><br><i>Expressive Arts and Design</i>                                                                                                                                                        |
| Careers Alignment             | <ol style="list-style-type: none"> <li><b>Toy Designer</b> – designs toys and objects children enjoy using</li> <li><b>Product Designer</b> – designs everyday objects for people</li> <li><b>Craft Maker</b> – makes handmade objects using tools and materials</li> </ol> | <ol style="list-style-type: none"> <li><b>Event Designer</b> – designs decorations and items for celebrations</li> <li><b>Product Maker</b> – creates items used for parties and special events</li> <li><b>Craft Designer</b> – designs decorative objects and gifts</li> </ol> | <ol style="list-style-type: none"> <li><b>Toy Designer</b> – designs characters and toys for stories</li> <li><b>Model Maker</b> – makes objects and models used in storytelling</li> <li><b>Prop Designer</b> – designs items used in plays and role play</li> </ol> | <ol style="list-style-type: none"> <li><b>Farm Equipment Designer</b> – designs tools and equipment for farms</li> <li><b>Model Maker</b> – makes models of animals, vehicles and buildings</li> <li><b>Product Designer</b> – designs products used in outdoor environments</li> </ol> | <ol style="list-style-type: none"> <li><b>Safety Equipment Designer</b> – designs helmets, tools and protective items</li> <li><b>Police Officer</b> – helps keep people safe and uses protective clothing and tools</li> <li><b>Firefighter</b> – helps people in emergencies and uses specially designed safety equipment</li> </ol> | <ol style="list-style-type: none"> <li><b>Vehicle Designer</b> – designs cars, boats, trains and planes</li> <li><b>Engineer</b> – designs ways for people to travel safely</li> <li><b>Model Maker</b> – makes models of vehicles and transport</li> </ol> |
| Enrichment/Trip Opportunities | Create and test a personalised name badge or simple model using joining materials.                                                                                                                                                                                          | Design and make Christmas decorations, celebration hats or gift boxes.                                                                                                                                                                                                           | Make story props, puppets or small-world models for favourite tales.                                                                                                                                                                                                  | Build a model farm, animal shelter or moving tractor using construction materials.                                                                                                                                                                                                      | Helping Heroes role-play workshop; design a safety badge, helmet or emergency vehicle.                                                                                                                                                                                                                                                 | Design and build boats, cars or planes; test them on ramps or in water.                                                                                                                                                                                     |

|                                      |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                            |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reception*</b>                    | <p><b>Who am I?<br/>Who lives around me?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                                                         | <p><b>Where will my imagination take me?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                                                       | <p><b>What happens in our world?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                                                                                          | <p><b>Do I want to be a knight?</b></p> <p><b>How did people from the past get around?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                                                                                                                            | <p><b>Where do animals live?<br/>Are Minibeasts like me?</b></p> <p><b>How does your garden grow?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                | <p><b>Do I want to be a pirate?</b></p> <p><i>Physical Development</i></p> <p><i>Expressive Arts and Design</i></p>                                                                                                                        |
| <b>Careers Alignment</b>             | <ol style="list-style-type: none"> <li><b>1. Architect</b> – designs houses and buildings</li> <li><b>2. Construction Designer</b> – plans how buildings are made</li> <li><b>3. Model Maker</b> – creates models of buildings and places</li> </ol> | <ol style="list-style-type: none"> <li><b>1. Toy Designer</b> – designs imaginative toys and games</li> <li><b>2. Inventor</b> – creates new ideas and products</li> <li><b>3. Engineer</b> – designs imaginative solutions to problems</li> </ol> | <ol style="list-style-type: none"> <li><b>1. Environmental Designer</b> – designs products to help the planet</li> <li><b>2. Engineer</b> – designs solutions to real-world problems</li> <li><b>3. Product Designer</b> – designs objects that improve daily life</li> </ol> | <ol style="list-style-type: none"> <li><b>1. Costume and Armour Designer</b> – designs outfits and equipment worn by people in the past</li> <li><b>2. Vehicle and Transport Designer</b> – designs carts, boats and other ways people travelled long ago</li> <li><b>3. Model and Prop Maker</b> – makes models, shields, swords and objects from history</li> </ol> | <ol style="list-style-type: none"> <li><b>1. Garden Designer</b> – designs outdoor spaces</li> <li><b>2. Product Designer</b> – designs tools for gardening and habitats</li> <li><b>3. Engineer</b> – designs structures such as bug hotels and shelters</li> </ol> | <ol style="list-style-type: none"> <li><b>1. Ship Designer</b> – designs boats and ships</li> <li><b>2. Inventor</b> – designs tools and objects for adventures</li> <li><b>3. Map or Model Maker</b> – designs maps and models</li> </ol> |
| <b>Enrichment/Trip Opportunities</b> | <p><i>Local-area walk to explore houses and buildings; construct a model home. Make family gifts or cards.</i></p>                                                                                                                                   | <p><i>Inventors' workshop using loose parts and recycled materials; design an imaginative toy.</i></p>                                                                                                                                             | <p><i>Eco-design challenge: reuse packaging to create a useful product for the classroom.</i></p>                                                                                                                                                                             | <p><i>Castle day: make shields, crowns or moving carts; explore historical transport models.</i></p>                                                                                                                                                                                                                                                                  | <p><i>Garden and minibeast exploration; design and build a bug hotel or plant shelter.</i></p>                                                                                                                                                                       | <p><i>Pirate day: design treasure maps, boats and simple waterproof containers.</i></p>                                                                                                                                                    |

| Year 1                        | Structures: Stable structures                                                                                                                                                                                                                                                                                                                                                                                                                               | Textiles: Puppets                                                                                                                                                                                                                                                                                                                                                                  | Cooking and nutrition: Fruits and vegetables                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Careers Alignment             | <ol style="list-style-type: none"> <li><b>Structural Engineer</b><br/>GCSE Maths &amp; Science → A Levels Maths/Physics → BEng (Hons) Civil/Structural Engineering → MSc (optional)</li> <li><b>Architect</b><br/>GCSE Art &amp; Maths → A Levels → BA (Hons) Architecture → MArch → Professional Practice</li> <li><b>Construction Designer</b><br/>GCSE Design Technology → BTEC Construction → HND Construction / BA (Hons) Built Environment</li> </ol> | <ol style="list-style-type: none"> <li><b>Textile Designer</b><br/>GCSE Art &amp; Design → A Level Textiles / BTEC Fashion → BA (Hons) Textile Design</li> <li><b>Toy Designer</b><br/>GCSE Art / DT → A Level Design → BA (Hons) Product or Toy Design</li> <li><b>Costume Maker</b><br/>GCSE Art / Textiles → BTEC Performing Arts Costume → BA (Hons) Costume Design</li> </ol> | <ol style="list-style-type: none"> <li><b>Chef</b><br/>GCSE Food Preparation &amp; Nutrition → NVQ / Professional Cookery Diploma</li> <li><b>Nutritionist</b><br/>GCSE Science → A Levels Biology → BSc Nutrition → MSc Nutrition (optional)</li> <li><b>Food Product Developer</b><br/>GCSE Food Tech / Science → BTEC Food Science → BSc Food Technology</li> </ol>             |
| Enrichment/Trip Opportunities | Local architecture walk; build and test playground or classroom structures using construction kits.                                                                                                                                                                                                                                                                                                                                                         | Puppet theatre afternoon: design, sew and perform with hand puppets. Seasonal felt decoration.                                                                                                                                                                                                                                                                                     | Fruit-tasting and smoothie-making workshop; visit a local greengrocer or invite a food specialist.                                                                                                                                                                                                                                                                                 |
| Year 2                        | Structures: Baby Bear's chair                                                                                                                                                                                                                                                                                                                                                                                                                               | Cooking and nutrition: A balanced diet                                                                                                                                                                                                                                                                                                                                             | Mechanisms: Fairground wheel                                                                                                                                                                                                                                                                                                                                                       |
| Careers Alignment             | <ol style="list-style-type: none"> <li><b>Furniture Designer</b><br/>GCSE Design Technology → A Level Product Design → BA (Hons) Furniture Design</li> <li><b>Product Designer</b><br/>GCSE DT → A Level DT → BA (Hons) Product Design</li> <li><b>Joiner / Carpenter</b><br/>GCSEs → Apprenticeship in Carpentry → NVQ Level 3</li> </ol>                                                                                                                  | <ol style="list-style-type: none"> <li><b>Dietitian</b><br/>GCSE Science → A Levels Biology → BSc Dietetics → HCPC Registration</li> <li><b>Food Technologist</b><br/>GCSE Food Tech → BTEC Food Science → BSc Food Technology</li> <li><b>School Catering Manager</b><br/>GCSE Food Prep → NVQ Catering → Level 4 Hospitality Management</li> </ol>                               | <ol style="list-style-type: none"> <li><b>Mechanical Engineer</b><br/>GCSE Maths &amp; Science → A Levels Maths/Physics → BEng (Hons) Mechanical Engineering</li> <li><b>Ride Designer</b><br/>GCSE DT → A Level Design → BA (Hons) Product / Industrial Design</li> <li><b>Engineering Technician</b><br/>GCSEs → Engineering Apprenticeship → NVQ Level 3 Engineering</li> </ol> |
| Enrichment/Trip Opportunities | Furniture design challenge: test materials and build chair for a class toy.                                                                                                                                                                                                                                                                                                                                                                                 | Healthy wrap workshop; prepare and taste a balanced snack. Link to Healthy Eating.                                                                                                                                                                                                                                                                                                 | Fairground design day: explore wheels and axles, then create a class fairground exhibition.                                                                                                                                                                                                                                                                                        |

|                                      |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                              |
| <b>Year 3</b>                        | <b>Cooking and nutrition: Eating seasonally</b>                                                                                                                                                                                                                                                                                                                      | <b>Textiles: Cushions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Structures: Constructing a castle</b>                                                                                                                                                                                                                                                                                                                     |
| <b>Careers Alignment</b>             | <ol style="list-style-type: none"> <li><b>Sustainability Food Advisor</b><br/>GCSE Science → A Levels → BSc Environmental Science</li> <li><b>Chef (Seasonal / Sustainable Cooking)</b><br/>GCSE Food Prep → Catering Diploma → Professional Chef Training</li> <li><b>Food Supply Chain Manager</b><br/>GCSE Maths → A Levels → BSc Food Management</li> </ol>      | <ol style="list-style-type: none"> <li><b>Interior Designer</b><br/>GCSE Art &amp; Design / DT → A Levels / BTEC Design → BA (Hons) Interior Design</li> <li><b>Textile Designer</b><br/>GCSE Art &amp; Design / Textiles → A Level Textiles / BTEC Art &amp; Design → BA (Hons) Textile Design</li> <li><b>Soft Furnishings Designer</b><br/>GCSE Art &amp; Design / Textiles → BTEC Design / HND Textiles → BA (Hons) Textile Design or Interior Design</li> </ol> | <ol style="list-style-type: none"> <li><b>Civil Engineer</b><br/>GCSE Maths &amp; Science → A Levels → BEng (Hons) Civil Engineering</li> <li><b>Architectural Model Maker</b><br/>GCSE Art / DT → BTEC Design → HND Model Making</li> <li><b>Heritage Building Consultant</b><br/>GCSE History / DT → A Levels → BA (Hons) Heritage Conservation</li> </ol> |
| <b>Enrichment/Trip Opportunities</b> | <i>Seasonal food tasting and cooking using local produce; visit a market, allotment or farm shop.</i>                                                                                                                                                                                                                                                                | <i>Textiles workshop with a visiting sewer or family volunteer; create a cushion for a reading area.</i>                                                                                                                                                                                                                                                                                                                                                             | <i>Castle visit or virtual tour; team challenge to build and test a fortified castle model.</i>                                                                                                                                                                                                                                                              |
| <b>Year 4</b>                        | <b>Structure: Pavilions</b>                                                                                                                                                                                                                                                                                                                                          | <b>Cooking and nutrition: Adapting a recipe</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Mechanical systems: Gears and pulleys</b>                                                                                                                                                                                                                                                                                                                 |
| <b>Careers Alignment</b>             | <ol style="list-style-type: none"> <li><b>Architectural Designer</b><br/>GCSE Art &amp; Maths → A Levels → BA (Hons) Architecture</li> <li><b>Structural Engineer</b><br/>GCSE Maths &amp; Science → A Levels → BEng (Hons) Structural Engineering</li> <li><b>Exhibition Designer</b><br/>GCSE Art → A Level Art → BA (Hons) Exhibition / Spatial Design</li> </ol> | <ol style="list-style-type: none"> <li><b>Food Product Developer</b><br/>GCSE Food Tech → BTEC Food Science → BSc Food Technology</li> <li><b>Development Chef</b><br/>GCSE Food Prep → Catering Diploma → Industry Training</li> <li><b>Nutrition Researcher</b><br/>GCSE Science → A Levels → BSc Nutrition → MSc / PhD</li> </ol>                                                                                                                                 | <ol style="list-style-type: none"> <li><b>Automotive Engineer</b><br/>GCSE Maths &amp; Science → A Levels → BEng (Hons) Automotive Engineering</li> <li><b>Mechanical Designer</b><br/>GCSE DT → A Level Design → BA (Hons) Mechanical Design</li> <li><b>STEM Engineering Technician</b><br/>GCSEs → Engineering Apprenticeship → NVQ Level 3</li> </ol>    |

|                                      |                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enrichment/Trip Opportunities</b> | <i>Architecture walk or visit to a local pavilion; outdoor team build using sticks and joining materials.</i>                                                                                                                                                                                                                                         | <i>Recipe-development workshop linked to a celebration; taste-test and evaluate adapted products.</i>                                                                                                                                                                                                                                                                                  | <i>Engineering workshop using pulleys and gears; investigate mechanisms in bicycles or playground equipment.</i>                                                                                                                                                                                                                                                                 |
| <b>Year 5</b>                        | <b>Electrical systems – Doodlers</b>                                                                                                                                                                                                                                                                                                                  | <b>Mechanical systems – Gears and pulleys</b>                                                                                                                                                                                                                                                                                                                                          | <b>Cooking and nutrition: Developing a recipe</b>                                                                                                                                                                                                                                                                                                                                |
| <b>Careers Alignment</b>             | <ol style="list-style-type: none"> <li><b>Electrical Engineer</b><br/>GCSE Maths &amp; Science → A Levels → BEng (Hons) Electrical Engineering</li> <li><b>Product Electronics Designer</b><br/>GCSE DT → A Level Design → BA (Hons) Product Design</li> <li><b>Robotics Technician</b><br/>GCSE Science → BTEC Engineering → HND Robotics</li> </ol> | <ol style="list-style-type: none"> <li><b>Paper Engineer</b><br/>GCSE Art / DT → A Level Design → BA (Hons) Product Design</li> <li><b>Book Designer</b><br/>GCSE Art → A Level Art → BA (Hons) Graphic Design</li> <li><b>Toy &amp; Games Designer</b><br/>GCSE DT → A Level Design → BA (Hons) Toy Design</li> </ol>                                                                 | <ol style="list-style-type: none"> <li><b>Public Health Nutritionist</b><br/>GCSE Science → A Levels → BSc Nutrition → MSc Public Health</li> <li><b>Food Policy Advisor</b><br/>GCSE Humanities → A Levels → BA (Hons) Food Policy / Health Studies</li> <li><b>Healthy Product Developer</b><br/>GCSE Food Tech → BTEC Food Science → BSc Food Technology</li> </ol>           |
| <b>Enrichment/Trip Opportunities</b> | <i>STEM electronics workshop; design and exhibit working doodlers using motors and circuits.</i>                                                                                                                                                                                                                                                      | <i>Paper-engineering pop-up book challenge; invite a designer or illustrator to demonstrate mechanisms.</i>                                                                                                                                                                                                                                                                            | <i>Healthy recipe challenge with a visiting chef; design packaging and conduct a class taste test.</i>                                                                                                                                                                                                                                                                           |
| <b>Year 6</b>                        | <b>Textiles: Waistcoats</b>                                                                                                                                                                                                                                                                                                                           | <b>Electrical systems: Steady hand game</b>                                                                                                                                                                                                                                                                                                                                            | <b>Cooking and nutrition: Come dine with me</b>                                                                                                                                                                                                                                                                                                                                  |
|                                      | <ol style="list-style-type: none"> <li><b>Fashion Designer</b><br/>GCSE Art &amp; Textiles → A Level Fashion → BA (Hons) Fashion Design</li> <li><b>Tailor</b><br/>GCSEs → Apprenticeship in Tailoring → NVQ Level 3</li> <li><b>Costume Designer</b><br/>GCSE Art / Textiles → A Level Art → BA (Hons) Costume Design</li> </ol>                     | <ol style="list-style-type: none"> <li><b>Electronics Engineer</b><br/>GCSE Maths &amp; Science → A Levels → BEng (Hons) Electronic Engineering</li> <li><b>Game Designer (Physical / Interactive)</b><br/>GCSE DT → A Level Design → BA (Hons) Game Design</li> <li><b>Product Tester / Quality Engineer</b><br/>GCSE Science → BTEC Engineering → HND Quality Engineering</li> </ol> | <ol style="list-style-type: none"> <li><b>Restaurant Chef</b><br/>GCSE Food Prep → Catering Diploma → Professional Chef Training</li> <li><b>Hospitality Manager</b><br/>GCSE Maths / English → A Levels / BTEC Hospitality → BA (Hons) Hospitality Management</li> <li><b>Food Critic / Writer</b><br/>GCSE English → A Levels → BA (Hons) Journalism / Food Writing</li> </ol> |

|                                      |                                                                                                         |                                                                                                      |                                                                                                                 |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Enrichment/Trip Opportunities</b> | <i>Fashion design workshop; create waistcoats for an end-of-year performance or character showcase.</i> | <i>Electronics challenge day: make and test steady-hand games, followed by a class games arcade.</i> | <i>Come Dine With Me event: plan, prepare and present a meal for invited guests; explore hospitality roles.</i> |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|

**\*The EYFS curriculum has 3 prime and 4 specific areas. Design and Technology falls under the area of Expressive Art and Design and Physical Development. At Park Road Academy children in the EYFS will have the opportunity to explore and develop their skills in the mediums of painting, drawing, sculpture and mixed media. Child initiated learning is highly valued and as such we allow for this flexibility in our creative projects.**