



## Design Technology at Amington Heath

### How is this subject taught?

Children learn Design Technology (DT) throughout the mini adventure approach to the curriculum. Children become for three week mini adventures where they learn the DT knowledge and skills set out in the national curriculum in a purposeful and inspiring way. Throughout their time at Amington Heath, children will go on at least eleven adventures where they are designers.

In addition to the specific DT mini adventures, children also use their DT skills within other subject areas such as Science and Art mini adventures. Children share their DT knowledge and skills with the whole school community through fantastic finishes and sharing assemblies.

### Plan for progression

The curriculum has been mapped to ensure that knowledge and skills build upon prior learning from knowledge and understanding of the world in Nursery to Year 6 programmes of study.

### Enrichment

DT lessons are enhanced with enrichment activities such as trips to the cooking and parental engagement events such as tea parties where the food has been designed and created by the children and trips to Harry Potter World to explore real life elements of DT such as prop making and special effects.

## Mini Adventure outcomes - Whole School progression in DT:

### EYFS

What the children will be learning to do:	How to support/ teach this:
<p><b><u>EAD- 0-3 years</u></b>                      Explore different materials, using all of their senses to investigate them. Manipulate and play with different materials.                      Use their imagination as they consider what they can do with different materials.                      Make simple models which express their different ideas.</p>	<p>Stimulate children’s interest in modelling-                      *Provide a wide range of found materials – Junk, blocks, clay, soft wood, card, fabric and materials of different textures.                      *Provide appropriate tools and joining methods for the materials offered  <b>Encourage young children to explore materials/ resources finding out what they are/ what they can do, and decide how they want to use them.</b></p>
<p><b><u>EAD- 3-4 years</u></b></p> <p>Create closed shapes with continuous lines and begin to use these shapes to represent objects</p>	<p>Offer opportunities to explore scale-                      *Long strips of wallpaper                      *Child size boxes                      *Different surfaces to work on- paving, floor, tabletop, easel  <b>Listen and understand what children want to create before offering suggestions.</b>                      *Invite artist, craftspeople into the setting, as a range of ideas for the children to draw on.    <b>Help children to develop their drawing and model-making. Encourage them to develop own creative ideas.</b></p>
<p><b><u>EAD- Reception age</u></b></p>	<p>*Provide children with a range of materials to construct with                      *Teach children different techniques for joining materials                      *Provide a range of materials and tools and teach children how to use them with precision- promote independence.</p>

### Year 1

Mini adventure	Outcomes
<p>Towers and Turrets</p>	<p><b>SUMMARY</b>                      Children need to know how to attack a castle to save the princess!                      Children must use a range of effective joining techniques to create an effective and strong structure with which to defeat the enemy or save the princess.  <b>Adventure Outcomes:</b>                      1. Generate , develop, model and communicate ideas through drawings and mock ups.                      2. Select from and use a wide range of materials                      3. Build structures, exploring how they can be made stronger, stiffer and more stable</p>

Bright Lights, Big City!	<p><b>SUMMARY</b> Children explore the Eatwell plate and find out the principles of healthy eating. They use this knowledge to plan and prepare a delicious healthy snack for Paddington and work to persuade him it's a tastier and healthier option to a marmalade sandwich.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Use the basic principles of a healthy and varied diet to prepare dishes</li> <li>2. Understand where food comes from.</li> <li>3. Make simple choices that improve their health and wellbeing;</li> </ol>
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Year 2

Mini adventure	Outcomes
Moon Zoom	<p><b>SUMMARY</b> Children to develop their understanding of wheels and axels to design and create a moon buggy fit for an alien. They use junk modelling techniques to create the body of the moon buggy.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Generate, develop, model and communicate ideas through talking and drawing</li> <li>2. Select from and use a wide range of materials to perform practical tasks</li> <li>3. Explore and use mechanisms</li> </ol>
Lotions, Potions and Nibbles	<p><b>SUMMARY</b> Children further develop their knowledge of healthy eating, exploring why the body needs a range of food types. They grow their own foods and use these to create a delicious selection of foods (e.g. pinwheel pizzas) for a Mad Hatter's Tea Party.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Use the basic principles of a healthy and varied diet to prepare dishes</li> <li>2. Understand where food comes from</li> <li>3. Know how to keep healthy and well.</li> </ol>
Rio De Vida	<p><b>SUMMARY</b> The Carnival has come to town! Children need to create a bright and colourful mask to use in their final dance performance. They use paper mache to create the base and decorate using a range of materials.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Design purposeful and appealing/ functional products</li> <li>2. Select from and use a range of materials and components including textiles</li> <li>3. Explore and evaluate a range of products</li> </ol>

### Year 3

Mini adventure	Outcomes
Extreme Weather	<p><b>SUMMARY</b> There have been many earthquakes in the area! Children use a range of materials including construction materials to create their very own seismographs to measure the tremors that may occur.</p> <p><b>Adventure Outcomes</b></p> <ol style="list-style-type: none"> <li>1. Select from a wide range of materials and components including construction materials</li> <li>2. Apply understanding of computing to program, monitor and control their products</li> </ol>
	Forest Schools addresses additional outcomes

### Year 4

Mini adventure	Outcomes
Invaders	<p><b>SUMMARY</b> Children use strengthening techniques that can be used to create a trebuchet. They use effective joining methods and develop their understanding of the use of levers to fire a weapon to protect themselves from the invading Normans.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Understand key events and individuals in DT have helped shape the world</li> <li>2. Apply understanding of how to strength and stiffen</li> <li>3. Use research and develop design criteria to inform design of innovative and functional products</li> </ol>
Peasants and Princes	<p><b>SUMMARY</b> Children explore the seasonality of vegetables and discover where they are produced. They explore how the body digests these different foods and then create a delicious seasonal meal.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Understand and apply principles of a healthy and varied diet to prepare dishes</li> <li>2. Prepare and cook a variety of predominantly savoury dishes</li> <li>3. Understand seasonality and how/where ingredients are grown</li> </ol>

Year 5

Mini adventure	Outcomes
Cosmic	<p><b>SUMMARY</b> It's fairground time! Children develop their knowledge of strengthening and stability techniques and use this, coupled with their knowledge of circuit building, to create a fabulous fairground carousel with an out of this world theme.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Select correct tools and equipment</li> <li>2. apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>3. understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> <li>4. associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</li> <li>5. compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches</li> <li>6. Use recognised symbols when representing a simple circuit in a diagram.</li> </ol>
Forest schools covers additional DT outcomes	

Year 6

Mini adventure	Outcomes
London Eye Mystery	<p><b>SUMMARY</b> Children research and create observational sketches of key land marks in cities across the world. They use their knowledge of strengthening, reinforcing and stability techniques as well as accurate construction techniques to create their own version of a landmark of interest.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. Select correct tools and equipment</li> <li>2. apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> </ol>
Harry Potter	<p><b>SUMMARY</b> Children use their knowledge of strengthening, stiffening and reinforcing to create a book nook. They research Harry Potter Scenes to make an engaging final piece that meets their design criteria.</p> <p><b>Adventure Outcomes:</b></p> <ol style="list-style-type: none"> <li>1. apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>2. 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</li> <li>3. evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> </ol>