

# Pirbright Village Primary School

## Coverage in Design Technology



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>YEAR 1</b>						
<b>Topic</b>	<b>Earth, Wind &amp; Fire!</b>		<b>Far, Far Away</b>		<b>Nurturing Nature</b>	
<b>Products</b>	<b>Structures: Freestanding Structures</b>		<b>Mechanisms: Sliders and Levers</b>		<b>Cooking and Nutrition: Preparing Food and Vegetables</b>	
<b>Design Technology</b>	<p><b>Design:</b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking and drawing</p> <p><b>Make:</b> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b>Evaluate</b> explore and evaluate a range of existing products evaluate their ideas and products against design criteria</p> <p><b>Technical Knowledge:</b> build structures, exploring how they can be made stronger, stiffer and more stable</p>		<p><b>Design:</b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing and mock-ups.</p> <p><b>Make:</b> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p><b>Evaluate</b> evaluate their ideas and products against design criteria</p> <p><b>Technical Knowledge:</b> explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p>		<p><b>Design:</b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking and drawing</p> <p><b>Make:</b> select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b>Evaluate:</b> evaluate their ideas and products against design criteria</p> <p>use the basic principles of a healthy and varied diet to prepare dishes</p>	

## YEAR 2

Topic	Passport to the World	Living, Dead and Never Been Alive	Victorians
<b>Products</b>	<b>Cooking and Nutrition: Preparing Fruit and Vegetables</b>	<b>Textiles: Templates and joining techniques</b>	<b>Mechanisms: Wheels and axles</b>
<b>Design Technology</b>	<p><b><u>Design:</u></b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p><b><u>Make:</u></b> select from and use a range of tools and equipment to perform practical tasks</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b><u>Evaluate:</u></b> explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p> <p>understand where food comes from</p> <p>use the basic principles of a healthy and varied diet to prepare dishes</p>	<p><b><u>Design:</u></b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p><b><u>Make:</u></b> select from and use a range of tools and equipment to perform practical tasks</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b><u>Evaluate:</u></b> explore and evaluate a range of existing products</p> <p>evaluate their ideas and products against design criteria</p>	<p><b><u>Design:</u></b> design purposeful, functional, appealing products for themselves and other users based on design criteria</p> <p>generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p> <p><b><u>Make:</u></b> select from and use a range of tools and equipment to perform practical tasks</p> <p>select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p> <p><b><u>Evaluate:</u></b> explore and evaluate a range of existing products</p> <p><b><u>Technical Knowledge:</u></b> explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</p> <p>build structures, exploring how they can be made stronger, stiffer and more stable</p>

## YEAR 3

Topic	Clubs to Cavemen	Exhilarating Egyptians	Engaging Environment
<b>Products</b>	<b>Cooking and Nutrition: Healthy and varied diet (stew)</b>	<b>Mechanical Systems: Levers and Linkages</b>	<b>Structures: Shell structures (using CAD)</b>
	<p><b><u>Design:</u></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 Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes</p> <p><b><u>Make:</u></b> Select from and use a wider range of tools and equipment to perform practical tasks accurately Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p><b><u>Evaluate:</u></b> Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>Understand and apply the principles of a healthy and varied diet Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed</p>	<p><b><u>Design:</u></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 generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes</p> <p><b><u>Make:</u></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 select from and use a wider range of tools and equipment to perform practical tasks accurately</p> <p><b><u>Evaluate:</u></b> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p><b><u>Technical Knowledge:</u></b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures. understand and use mechanical systems in their products [for example, levers and linkages]</p>	<p><b><u>Design:</u></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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, computer aided design.</p> <p><b><u>Make:</u></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><u>Evaluate:</u></b> evaluate their ideas and products against their own design criteria and consider the views of others to improve their work investigate and analyse a range of existing products</p> <p><b><u>Technical Knowledge:</u></b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</p>

## YEAR 4

Topic	Cracking Contraptions Extreme Earth	Are all animals the same? Myths and Legends	Should we thank the Romans for invading Britain?
Products	Electrical Systems: Simple Circuits and Switches	Cooking and Nutrition: Healthy and Varied Diet	Textiles: 2D shape to 3D product
	<p><b><u>Design:</u></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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes.</p> <p><b><u>Make:</u></b> select from and use from a wider range of tools and equipment to perform practical tasks accurately.</p> <p><b><u>Evaluate:</u></b> investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p><b><u>Technical Knowledge:</u></b> understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p>	<p><b><u>Design:</u></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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes.</p> <p><b><u>Make:</u></b> select from and use from a wider range of tools and equipment to perform practical tasks accurately. prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p><b><u>Evaluate:</u></b> evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p>understand and apply the principles of a healthy and varied diet understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p><b><u>Design:</u></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 generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes.</p> <p><b><u>Make:</u></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><u>Evaluate:</u></b> Investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>

**YEAR 5**

Topic	To Infinity & Beyond	In Your Imagination	Journey Around the World	The Diversity of Life	Raiders & Invaders
<b>Products</b>	<b>Mechanical Systems: Pulleys and Gears</b>		<b>Structures: Frame Structures</b>	<b>Cooking &amp; Nutrition: Celebrating Culture and Seasonality</b>	
	<p><b><u>Design:</u></b> generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design 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><u>Make:</u></b> select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately 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><u>Evaluate:</u></b> understand how key events and individuals in design and technology have helped shape the world</p> <p><b><u>Technical Knowledge:</u></b> understand and use mechanical systems in their products understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</p>	<p><b><u>Design:</u></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 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><u>Make:</u></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 select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p><b><u>Evaluate:</u></b> evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p> <p><b><u>Technical Knowledge:</u></b> apply their understanding of how to strengthen, stiffen and reinforce more complex structures  understand and apply the principles of a healthy and varied diet understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>			

## YEAR 6

Topic	To Be A Child In WWII	Celebrating Me!	A Visit to Central and South America
<b>Products</b>	<p><b>Cooking and Nutrition: Celebrating Culture and Seasonality</b>  <b>Electrical Systems: More Complex switches and circuits</b></p>	<p><b>Textiles: Using Computer Aided Design in textiles</b></p>	
	<p><b><u>Design:</u></b>  generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  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><u>Make:</u></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  select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</p> <p><b><u>Evaluate:</u></b>  Investigate and analyse a range of existing products  evaluate their ideas and products against their own design criteria and consider the views of others to improve their work  understand how key events and individuals in design and technology have helped shape the world</p> <p><b><u>Technical Knowledge:</u></b>  understand and use electrical systems in their products [series circuits incorporating switches, bulbs, buzzers, motors]  apply their understanding of computing to program, monitor and control their products</p> <p>understand and apply the principles of a healthy and varied diet  understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</p>	<p><b><u>Design:</u></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  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><u>Make:</u></b>  select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  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><u>Evaluate:</u></b>  Investigate and analyse a range of existing products  understand how key events and individuals in design and technology have helped shape the world  evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>	

**Food Technology:**

Cooking and nutrition: As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

**Key stage 1**

- use the basic principles of a healthy and varied diet to prepare dishes
  - understand where food comes from

**Key stage 2**

- understand and apply the principles of a healthy and varied diet
  - prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Year Group	Autumn	Spring	Summer
Year 1			<ul style="list-style-type: none"> <li>• understand where food comes from</li> <li>• use the basic principles of a healthy and varied diet to prepare dishes</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• use the basic principles of a healthy and varied diet to prepare dishes</li> <li>• understand where food comes from</li> </ul>		
Year 3	<ul style="list-style-type: none"> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand and apply the principles of a healthy and varied diet</li> </ul>		
Year 4		<ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>	

<p><b>Year 5</b></p>		<ul style="list-style-type: none"> <li>• understand and apply the principles of a healthy and varied diet</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</li> </ul>	
<p><b>Year 6</b></p>	<ul style="list-style-type: none"> <li>• understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed</li> <li>• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</li> </ul>		