



## Freeland CE Primary School.

### Design & Technology Skills Progression KS1

	Year 1	Year 2
<b>Developing, planning and communicating ideas</b>	<ul style="list-style-type: none"> <li>● Begin to draw on their own experiences to help generate ideas and research conducted on criteria.</li> <li>● Begin to understand the development of existing products, what they are for, how they work, materials used.</li> <li>● Start to suggest ideas and explain what they are going to do.</li> <li>● Understand how to identify a target group for what they intend to design based on a design criteria.</li> <li>● Begin to develop ideas through talk and drawings.</li> <li>● Make templates and mock ups of ideas in card and paper or using ICT.</li> </ul>	<ul style="list-style-type: none"> <li>● Start to generate ideas by drawing on their own and other people's experiences.</li> <li>● Begin to develop ideas through discussion, observation, drawing and modelling.</li> <li>● Identify a purpose for what they intend to design and make.</li> <li>● Understand how to identify a target group for what they intend to design and make based on a design criteria.</li> <li>● Develop ideas through talk and drawings and label parts.</li> <li>● Make templates and mock ups of ideas in card and paper or using ICT.</li> </ul>
<b>Working with tools, equipment, materials and components to make quality products.</b>	<ul style="list-style-type: none"> <li>● Begin to make their designs using appropriate techniques.</li> <li>● Begin to build structures, exploring how they can be made stronger, stiffer and more stable.</li> <li>● Explore and use mechanisms (levers, sliders, wheels and axles) in their products.</li> <li>● With help, measure, mark out, cut and shape a range of materials.</li> </ul>	<ul style="list-style-type: none"> <li>● Begin to select tools and materials and use correct vocabulary to name and describe them.</li> <li>● Build structures, exploring how they can be made stronger, stiffer and more stable.</li> <li>● With help, measure, mark out, cut and shape a range of materials.</li> <li>● Learn to use hand tools safely and appropriately.</li> <li>● Start to assemble, join and combine materials and components together in order to make a product.</li> </ul>

	<ul style="list-style-type: none"> <li>● Explore using tools -scissors and a hole punch safely.</li> <li>● Begin to assemble, join and combine materials and components together using a variety of temporary methods- glues or masking tape.</li> <li>● Begin to use simple finishing techniques to improve the appearance of their product.</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques.</li> <li>● Start to choose and use appropriate finishing techniques based on own ideas.</li> </ul>
<b>Evaluating processes and products</b>	<ul style="list-style-type: none"> <li>● Start to evaluate their product by discussing how well it works in relation to the design brief.</li> <li>● When exploring existing products, explain what they like and dislike and say why.</li> <li>● Begin to evaluate their own products during making and identify strengths and possible changes they could make.</li> </ul>	<ul style="list-style-type: none"> <li>● Evaluate their product by discussing how well it works in relation to the design brief.</li> <li>● When exploring existing products, explain what they like and dislike and say why.</li> <li>● Evaluate their own products during making and identify strengths and possible changes they could make.</li> <li>● With confidence, explain what they like and dislike about their ideas and finished products.</li> </ul>
<b>Food and nutrition</b>	<ul style="list-style-type: none"> <li>● Begin to understand that all food comes from plants and animals.</li> <li>● Begin to understand that food has to be farmed, grown elsewhere- home or caught.</li> <li>● Start to understand how to name and sort foods into the five groups. Begin to understand the importance of eating at least five portions of fruit and vegetables every day.</li> <li>● Know how to prepare simple dishes safely and hygienically without using a heat source.</li> </ul>	<ul style="list-style-type: none"> <li>● Understand that all food comes from plants and animals.</li> <li>● Know that food has to be farmed, grown elsewhere- home or caught.</li> <li>● Understand how to name and sort foods into the five groups. Understand the importance of eating at least five portions of fruit and vegetables every day.</li> <li>● Demonstrate how to prepare simple dishes safely and hygienically without using a heat source.</li> </ul>



	<ul style="list-style-type: none"> <li>● Know how to use techniques such as cutting, peeling and grating.</li> </ul>	<ul style="list-style-type: none"> <li>● Demonstrate how to use techniques such as cutting, peeling and grating.</li> </ul>
--	--	---

## Freeland CE Primary School

### KS2 Design & Technology Skills Progression - Red Kites

	Year 3	Year 4
<p><b>Developing, planning and communicating ideas</b></p>	<ul style="list-style-type: none"> <li>● With growing confidence, generate ideas for an item considering its purpose and the user/s.</li> <li>● Start to order the main stages of making a product. Identify a purpose and establish criteria for a successful product.</li> <li>● Understand how well products have been designed, made, what materials have been used and the construction technique.</li> <li>● Learn about inventors, designers, chefs and manufacturers who have developed ground-breaking products.</li> <li>● Start to understand whether products can be recycled or reused.</li> <li>● Use drawings with labels when designing.</li> </ul>	<ul style="list-style-type: none"> <li>● Generate ideas for an item considering its purpose and the user/s - link with mathematics and science.</li> <li>● Confidently make labelled drawings from different viewpoints showing specific features.</li> <li>● Develop a clear plan of what has to be done including use of materials, equipment, processes and suggesting methods of making if the first attempt fails.</li> <li>● Identify the strengths and areas for development in their product.</li> <li>● When planning, consider the views of others, including intended users, to improve or modify the product.</li> <li>● Learn about inventors, designers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>

	<ul style="list-style-type: none"> <li>● Explain their choice of materials and components including function and aesthetics.</li> </ul>	<ul style="list-style-type: none"> <li>● Explain their choice of materials and components including function and aesthetics.</li> </ul>
<p><b>Working with tools, equipment, materials and components to make quality products.</b></p>	<ul style="list-style-type: none"> <li>● Select a wider range of tools and techniques – construction materials and kits, textiles, food ingredients, mechanical components and electrical components.</li> <li>● Explain choice of tools and equipment in relation to the skills and techniques to be used.</li> <li>● Start to understand that mechanical and electrical systems have an input process and output.</li> <li>● Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement.</li> <li>● Know how electrical circuits and components can be used to create functional products.</li> <li>● Measure, mark out, cut, score and assemble components with more accuracy.</li> <li>● Start to work safely and accurately with a range of simple tools.</li> <li>● During the process, be willing to make changes to improve work.</li> </ul>	<ul style="list-style-type: none"> <li>● Select a wider range of tools and techniques for making products safely.</li> <li>● Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques.</li> <li>● Start to join and combine materials and components accurately in temporary and permanent ways.</li> <li>● Know how mechanical systems such as cams or pulleys or gears create movement.</li> <li>● Understand how more complex electrical circuits and components can be used to create functional products.</li> <li>● Continue to learn how to program a computer to monitor changes in the environment and control their products.</li> <li>● Understand how to reinforce and strengthen a 3D framework. Now sew using a range of different stitches, to weave and knit.</li> <li>● Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy.</li> </ul>

	<ul style="list-style-type: none"> <li>● Start to measure, tape or pin, cut and join fabric with some accuracy.</li> </ul>	<ul style="list-style-type: none"> <li>● Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</li> </ul>
<b>Evaluating processes and products</b>	<ul style="list-style-type: none"> <li>● Start to evaluate their product against the original design brief- how well it meets the intended purpose.</li> <li>● Begin to disassemble and evaluate familiar products and consider the views of others to improve.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>	<ul style="list-style-type: none"> <li>● Evaluate products carrying out appropriate tests.</li> <li>● Start to evaluate their work both during and at the end of the assignment.</li> <li>● Begin to disassemble and evaluate familiar products and consider the views of others to improve.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>
<b>Food and nutrition</b>	<ul style="list-style-type: none"> <li>● Start to know that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Begin to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> </ul>	<ul style="list-style-type: none"> <li>● Understand that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Know how to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>● Know that a healthy diet is made up from a variety and balance of different food and drink.</li> </ul>

	<ul style="list-style-type: none"> <li>● Start to understand that a healthy diet is made up from a variety and balance of different food and drink.</li> <li>● To know that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>	<ul style="list-style-type: none"> <li>● Know that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>
--	--	---



## Freeland CE Primary School



### KS2 Design & Technology Progression - Kingfishers

	Year 4	Year 5
<b>Developing, planning and communicating ideas</b>	<ul style="list-style-type: none"> <li>● Generate ideas for an item considering its purpose and the user/s - link with mathematics and science.</li> <li>● Confidently make labelled drawings from different viewpoints showing specific features.</li> <li>● Develop a clear plan of what has to be done including use of materials, equipment, processes and suggesting methods of making if the first attempt fails.</li> <li>● Identify the strengths and areas for development in their product.</li> <li>● When planning, consider the views of others, including intended users, to improve or modify the product.</li> <li>● Learn about inventors, designers, chefs and manufacturers who have developed ground-breaking products.</li> </ul>	<ul style="list-style-type: none"> <li>● Start to generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces.</li> <li>● Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</li> <li>● With growing confidence, apply a range of finishing techniques.</li> <li>● Draw up a specification for their design- link with mathematics and science.</li> <li>● Use results of investigations, information sources, including ICT when developing design ideas.</li> <li>● With growing confidence, select appropriate materials, tools and techniques.</li> <li>● Start to understand how much products cost to make, how sustainable and innovative they are and</li> </ul>

	<ul style="list-style-type: none"> <li>● Explain their choice of materials and components including function and aesthetics.</li> </ul>	<p>the impact products have beyond their intended purpose.</p> <ul style="list-style-type: none"> <li>●</li> </ul>
<p><b>Working with tools, equipment, materials and components to make quality products.</b></p>	<ul style="list-style-type: none"> <li>● Select a wider range of tools and techniques for making products safely.</li> <li>● Measure, mark out, cut and shape a range of materials using appropriate tools, equipment and techniques.</li> <li>● Start to join and combine materials and components accurately in temporary and permanent ways.</li> <li>● Know how mechanical systems such as cams or pulleys or gears create movement.</li> <li>● Understand how more complex electrical circuits and components can be used to create functional products.</li> <li>● Continue to learn how to program a computer to monitor changes in the environment and control their products.</li> <li>● Understand how to reinforce and strengthen a 3D framework. Now sew using a range of different stitches, to weave and knit.</li> <li>● Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy.</li> <li>● Begin to use finishing techniques to strengthen and improve the appearance of</li> </ul>	<ul style="list-style-type: none"> <li>● Select appropriate materials, tools and techniques-cutting, shaping, joining and finishing accurately.</li> <li>● 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.</li> <li>● Understand how mechanical systems such as cams or pulleys or gears create movement.</li> <li>● Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products.</li> <li>● Understand that mechanical and electrical systems have an input process and output.</li> <li>● Begin to measure and mark more accurately.</li> <li>● Cut and join with accuracy to ensure a good quality finish to the product.</li> <li>● Demonstrate ability to use different tools and equipment safely and accurately with growing confidence.</li> </ul>

	<p>their product using a range of equipment including ICT.</p>	<ul style="list-style-type: none"> <li>● Weigh, measure accurately (dry ingredients and liquids).</li> <li>● Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</li> </ul>
<p><b>Evaluating processes and products</b></p>	<ul style="list-style-type: none"> <li>● Evaluate products carrying out appropriate tests.</li> <li>● Start to evaluate their work both during and at the end of the assignment.</li> <li>● Begin to disassemble and evaluate familiar products and consider the views of others to improve.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>	<ul style="list-style-type: none"> <li>● Evaluate products carrying out appropriate tests.</li> <li>● Start to evaluate their work both during and at the end of the assignment.</li> <li>● Seek further evaluation from others.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>
<p><b>Food and nutrition</b></p>	<ul style="list-style-type: none"> <li>● Understand that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Know how to understand how to use a range of techniques such as peeling, chopping,</li> </ul>	<ul style="list-style-type: none"> <li>● Understand that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Begin to understand that seasons may affect food availability.</li> <li>● Understand how food is processed into ingredients that can be eaten or used in cooking.</li> <li>● Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> </ul>



	<p>slicing, grating, mixing, spreading, kneading and baking.</p> <ul style="list-style-type: none"> <li>● Know that a healthy diet is made up from a variety and balance of different food and drink.</li> <li>● Know that to be active and healthy, food and drink are needed to provide energy for the body.</li> </ul>	<ul style="list-style-type: none"> <li>● Know how to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>● Begin to understand that food and drink contain different substances – nutrients, water, fibre,- that are needed for good health.</li> </ul>
--	---	---



## Freeland CE Primary School



### KS2 Design & Technology Skills progression - Golden Eagles.

	Year 5	Year 6
<b>Developing, planning and communicating ideas</b>	<ul style="list-style-type: none"> <li>● Start to generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces.</li> <li>● Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</li> <li>● With growing confidence, apply a range of finishing techniques <b>those from art and design.</b></li> </ul>	<ul style="list-style-type: none"> <li>● Generate, develop, model and communicate ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes and pattern pieces.</li> <li>● Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</li> <li>● Draw up a specification for their design – link with mathematics and science.</li> </ul>

	<ul style="list-style-type: none"> <li>● Draw up a specification for their design- link with mathematics and science.</li> <li>● Use results of investigations, information sources, including ICT when developing design ideas.</li> <li>● With growing confidence, select appropriate materials, tools and techniques.</li> <li>● Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</li> </ul>	<ul style="list-style-type: none"> <li>● Plan the order of their work, choosing appropriate materials, tools and techniques.</li> <li>● Suggest alternative methods of making if the first attempt fails.</li> <li>● Identify the strengths and areas for development in their ideas and products.</li> <li>● Accurately apply a range of finishing techniques including those from art and design.</li> <li>● Understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose.</li> </ul>
<p><b>Working with tools, equipment, materials and components to make quality products.</b></p>	<ul style="list-style-type: none"> <li>● Select appropriate materials, tools and techniques- cutting, shaping, joining and finishing accurately.</li> <li>● 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.</li> <li>● Understand how mechanical systems such as cams or pulleys or gears create movement.</li> <li>● Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to</li> </ul>	<ul style="list-style-type: none"> <li>● Confidently select appropriate materials, tools and techniques- cutting, shaping, joining and finishing accurately.</li> <li>● Use tools safely and accurately.</li> <li>● Assemble components to make working models - achieve a high quality product.</li> <li>● Construct products using permanent joining techniques.</li> <li>● With confidence, pin, sew and stitch materials together to create a product. Use a range of different stitches.</li> </ul>

	<p>monitor changes in the environment and control their products.</p> <ul style="list-style-type: none"> <li>● Understand that mechanical and electrical systems have an input process and output.</li> <li>● Begin to measure and mark our more accurately. Cut and join with accuracy to ensure a good quality finish to the product.</li> <li>● Demonstrate ability to use different tools and equipment safely and accurately with growing confidence.</li> <li>● Weigh, measure accurately (dry ingredients and liquids).</li> <li>● Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</li> </ul>	<ul style="list-style-type: none"> <li>● Understand how mechanical systems such as cams or pulleys or gears create movement.</li> <li>● Know how more complex electrical circuits and components can be used to create functional products and how to program a computer to monitor changes in the environment and control their products.</li> <li>● Know how to reinforce and strengthen a 3D framework.</li> <li>● Understand that mechanical and electrical systems have an input process and output.</li> <li>● Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</li> </ul> <p>Use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</p> <p>Use finishing techniques to strengthen and improve the</p>
<p><b>Evaluating processes and products</b></p>	<ul style="list-style-type: none"> <li>● Evaluate products carrying out appropriate tests.</li> </ul>	<ul style="list-style-type: none"> <li>● Evaluate products carrying out appropriate tests.</li> <li>● Evaluate their work both during and at the end of the assignment and make suggestions to improve the product.</li> </ul>

	<ul style="list-style-type: none"> <li>● Start to evaluate their work both during and at the end of the assignment.</li> <li>● Seek further evaluation from others.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>	<ul style="list-style-type: none"> <li>● Record evaluations using drawings and labels.</li> <li>● Evaluate key designs of others and how they have shaped the world.</li> </ul>
<p><b>Food and nutrition</b></p>	<ul style="list-style-type: none"> <li>● Understand that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Begin to understand that seasons may affect food availability.</li> <li>● Understand how food is processed into ingredients that can be eaten or used in cooking.</li> <li>● Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Know how to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>● Begin to understand that food and drink contain different substances – nutrients, water, fibre- that is needed for good health.</li> </ul>	<ul style="list-style-type: none"> <li>● Understand that food is grown (such as tomatoes, wheat and potatoes) reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</li> <li>● Understand that seasons may affect food availability.</li> <li>● Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically, where appropriate using a heat source.</li> <li>● Know how to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</li> <li>● Know that food and drink contain different substances – nutrients, water, fibre- that is needed for good health.</li> </ul>

