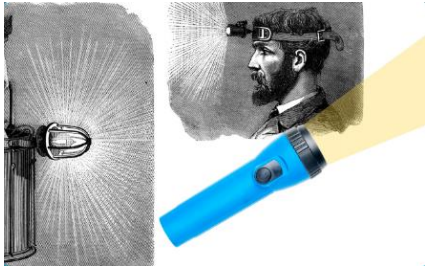





## Design and Technology Long Term Plan

Year 4	Design	Make	Evaluate	Technical Knowledge	Food
<b>Key Skills</b>	<ul style="list-style-type: none"> <li>• Generate ideas, considering the purposes for which they are designing</li> <li>• Make labelled drawings from different views showing specific features</li> <li>• Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail</li> <li>• Evaluate products and identify criteria that can be used for their own designs</li> </ul>	<ul style="list-style-type: none"> <li>• Select appropriate tools and techniques for making their product</li> <li>• Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques</li> <li>• Join and combine materials and components accurately in temporary and permanent ways</li> <li>• Sew using a range of different stitches, weave and knit</li> <li>• Measure, tape or pin, cut and join fabric with some accuracy</li> <li>• Use simple graphical communication techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate their work both during and at the end of the assignment</li> <li>• Evaluate their products carrying out appropriate tests</li> </ul>	<ul style="list-style-type: none"> <li>• Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>• Understand and use mechanical systems in their products.</li> <li>• Understand and use electrical systems in their products.</li> </ul>	<ul style="list-style-type: none"> <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 and processed.</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• Can children develop more than one design or adaptation of an initial design?</li> <li>• Are children able to propose realistic suggestions as to how they can achieve their design ideas through notes on drawings?</li> <li>• Can children think ahead about the order of their work and decide upon tools and materials needed?</li> </ul>	<ul style="list-style-type: none"> <li>• Can ch make a decorated piece of textile using the main stitches?</li> <li>• Can children incorporate a circuit into a useful product?</li> <li>• Can ch cut internal shapes and use linkages/levers within a pop-up?</li> </ul>	<ul style="list-style-type: none"> <li>• Consider and explain how the finished product could be improved</li> <li>• Can children discuss how well the finished product meets the design criteria and how well it meets the needs of the user?</li> </ul>	<ul style="list-style-type: none"> <li>• Can children explain how a pneumatic system works?</li> <li>• Are children able to make a circuit with a switch?</li> </ul>	<ul style="list-style-type: none"> <li>• Are children able to describe the ingredients they are using?</li> <li>• Can children follow a written set of instructions?</li> </ul>



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Term	Content/unit/topic	Curriculum links	Key facts	Key vocab
<p><b>Autumn 1</b></p>	<p><b>Science</b>  <b>Kapow: Electrical systems: Torches</b>            Create a torch using electrical circuits using knowledge of electrical systems and scientific understanding.</p>  <p><b>Settlements</b>            Create a 3D settlement using a range of materials.</p>	<p><b>Science</b>            Link to Electricity topic.</p> <p><b>Geography/History</b>            Link to Early Settlers topic.</p>	<p>Revisit creating a simple circuit and switches.            Evaluate different torches and identify features.            Create own design incorporating the features identified.            Build torch, following design plans.            Evaluate effectiveness of torch.</p> <p>Settlements need to be close to a water source, shelter, a flat area of land and somewhere accessible for resources, but without easy invasion from enemies.            Design what their settlement will look like and then try to create this as a 3D project using a range of materials.</p>	<p>Design, evaluate, circuit, switches, housing, reflector, conductors, insulators, batteries, assemble.</p> <p>Settlements, 3D, shelter, water source, resources, invasion, materials.</p>


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<p><b>Autumn 2</b></p>	<p><b><u>Ice Palace</u></b>  <b>Kapow: Structures</b>                  Create a 3D model of an ice palace.</p>  <p><b><u>Christmas</u></b>                  Create own Christmas tree/winter decoration.</p>	<p><b><u>English</u></b>                  Links to Ice Palace topic.</p> <p><b><u>Christmas</u></b></p>	<p>Plan their ice palace and think about how they want it to look / what features it will have.                  Collect resources that will be useful for their purpose e.g. cardboard for structure.</p> <p>Draw desired design onto paper before cutting it out or use a template.                  Add embellishments or decorations to decoration.                  Using a hole at the top of the decoration, thread string through and tie both ends together to create a hanging decoration.</p>	<p>Features, resources, purpose, structure.</p> <p>Template, design, embellishments, thread.</p>
<p><b>Spring 1</b></p>	<p><b><u>Art Term</u></b></p> <p><b><u>Anglo-Saxon Shield</u></b>                  Children to design and create their own Anglo-Saxon shield inspired by typical Anglo-Saxon designs.</p>  <p><b><u>Anglo-Saxon brooches/necklaces</u></b></p> <p>Research and create Anglo-Saxon inspired brooches or necklaces.</p> 	<p><b><u>History</u></b>                  Links to Anglo-Saxon and Vikings topic.</p> <p><b><u>History</u></b>                  Links to Anglo-Saxons topic.</p>	<p>Look at Anglo Saxon shields- identify features- shape, colours.                  Experiment with different possible designs.                  Choose one design to create shield.                  Design to include a handle, within the design.                  Choose materials to use.                  Evaluate effectiveness of the shield.</p> <p>Look at Anglo Saxon brooches or necklaces- identify features- shape, colours.                  Experiment with different possible designs.</p>	<p>Design, evaluate, materials, Celtic, symmetry.</p> <p>Brooches, necklace, designs, features, experiment,</p>

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			Choose one design to use or use as inspiration. Choose materials to use.	inspiration, materials.
<b>Spring 2</b>	<p><b><u>Easter</u></b> <b>Kapow: Adapting a Recipe.</b> Making Easter biscuits.</p>  <p><b><u>Science / Music - homework</u></b> Children to create a musical instrument from scratch using a range of materials.</p>	<p><b><u>Easter</u></b> Links to RE (Christianity).</p> <p><b><u>Science</u></b> Links to Sound topic.</p> <p><b><u>Music</u></b></p>	<p>Following a recipe. Making and testing a prototype. Adapting a recipe. Cooking safely, following basic hygiene rules. Designing a biscuit. Evaluating a recipe.</p> <p>Children to plan and create a musical instrument of their choice. This can be made using a range of materials, including recyclable materials or household items. This musical instrument must produce sound and will be presented to the class.</p>	<p>Design, recipe, budget, taste, prototype, safely, hygiene, evaluating, smell, texture, appearance, comparing</p> <p>Sound, instrument, materials, recyclable.</p>
<b>Summer 1</b>	<p><b><u>Dragons</u></b> Make a 3D model of a dragon using pipe cleaners – children design the pipe cleaners into their own unique shape, then measure/mark out/cut the hands/feet/wings to an appropriate size.</p> 	<p><b><u>English</u></b> Dragon topic.</p>	<p>Plan how to use materials and the process of designing and making. Evaluating their creation throughout and making changes if necessary. Measure, mark out, cut and shape the small body parts.</p>	<p>Plan, materials, design, evaluate, make, measure, mark out, cut, shape.</p>

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	<p><b><u>Dragons</u></b> Make a clay dragon.</p>  <p><b><u>Dragons</u></b> Make a moving dragon using levers/linkages.</p>	<p><b><u>English</u></b> Dragon topic.</p> <p><b><u>English</u></b> Dragon topic.</p>	<p>Mould accurately to ensure correct size proportion of head, body, tail, spikes, legs etc. and to make sure it doesn't break.</p> <p>Cut paper into accurate strips using a ruler to measure cm. Attach paper together in correct positions. Design own head and tail to attach.</p>	<p>Mould, proportion, sculpt, accurately.</p> <p>Levers, linkages, position, measure, mechanism.</p>
<p><b>Summer 2</b></p>	<p><b><u>Vincent Van Gogh – Art Term</u></b> Sunflower collage</p>	<p><b><u>All Around the World</u></b> Artists from other countries</p>	<p>Look at Van Gogh's Sunflower art work. Individually recreate a part of the art work using tissue paper. Collaboratively put each piece together to form one giant piece of art work.</p>	<p>Collage collaborative</p>