

## Progression of skills – Design and Technology

**At Baddow Hall Infant School our vision is for every child to make the best possible progress.**

### **Intent:**

At Baddow Hall Infant School our design and technology curriculum aims to ensure that children become **lifelong learners** through developing an enjoyment of design and construction.

We aim to ensure that children develop **curiosity** in design and technology by enabling children to develop their different design skills through the exploration of different techniques, styles and media.

We develop **resilience** in children through our design and technology curriculum by challenging children to design, make and then evaluate models, giving them the opportunities to look at how they could make their work better.

We enable children to be **creative** through teaching the children a range of skills, allowing them to explore different medias and design ideas to inspire and develop their own ideas and exploration.

### **EYFS framework (educational programme):**

Physical Development - Fine motor control and precision helps with hand-eye co-ordination, which is later linked to early literacy. Repeated and varied opportunities to explore and play with small world activities, puzzles, arts and crafts and the practice of using small tools, with feedback and support from adults, allow children to develop proficiency, control and confidence.

Expressive Arts and Design - The development of children's artistic and cultural awareness supports their imagination and creativity. It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

### **National curriculum guidance (purpose of study):**

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Skill	EYFS	Year 1	Year 2
Design	<ul style="list-style-type: none"> <li>• Select appropriate resources</li> <li>• Use gestures, talking and arrangements of materials and components to show design</li> <li>• Use contexts set by the adult</li> <li>• Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)</li> <li>• <b>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Have own ideas</li> <li>• Explain what I want to do</li> <li>• Explain what my product is for, and how it will work</li> <li>• Use pictures and words to plan, begin to use models</li> <li>• Design a product for myself following design criteria</li> <li>• Research similar existing products</li> </ul>	<ul style="list-style-type: none"> <li>• Have own ideas and plan what to do next</li> <li>• Explain what I want to do and describe how I may do it</li> <li>• Explain purpose of product, how it will work and how it will be suitable for the user</li> <li>• Describe design using pictures, words, models, diagrams, begin to use ICT</li> <li>• Design products for myself and others following design criteria</li> <li>• Choose best tools and materials, and explain choices</li> <li>• Use knowledge of existing products to produce ideas</li> </ul> <p><b>End of KS Expectations:</b></p> <ul style="list-style-type: none"> <li>• Design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>• Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-</li> </ul>

			ups and, where appropriate, information and communication technology
Make	<ul style="list-style-type: none"> <li>• Construct with a purpose, using a variety of resources</li> <li>• Use simple tools and techniques</li> <li>• Build / construct with a wide range of objects</li> <li>• Select tools &amp; techniques to shape, assemble and join</li> <li>• Replicate structures with materials / components</li> <li>• Discuss how to make an activity safe and hygienic</li> <li>• Record experiences by drawing, writing, voice recording</li> <li>• Understand different media can be combined for a purpose</li> <li>• <b>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG)</b></li> </ul>	<ul style="list-style-type: none"> <li>• Explain what I'm making and why</li> <li>• Consider what I need to do next</li> <li>• Select tools/equipment to cut, shape, join, finish and explain choices</li> <li>• Measure, mark out, cut and shape, with support</li> <li>• Choose suitable materials and explain choices</li> <li>• Try to use finishing techniques to make the product look good</li> <li>• Work in a safe and hygienic manner</li> </ul>	<ul style="list-style-type: none"> <li>• Explain what I am making and why it fits the purpose</li> <li>• Make suggestions as to what I need to do next.</li> <li>• Join materials/components together in different ways</li> <li>• Measure, mark out, cut and shape materials and components, with support.</li> <li>• Describe which tools I'm using and why</li> <li>• Choose suitable materials and explain choices depending on characteristics.</li> <li>• Use finishing techniques to make product look good</li> <li>• Work safely and hygienically</li> </ul> <p><b>End of KS Expectations:</b></p> <ul style="list-style-type: none"> <li>• Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing)</li> <li>• Select from and use a wide range of materials and</li> </ul>

			components, including construction materials, textiles and ingredients, according to their characteristics
Evaluate	<ul style="list-style-type: none"> <li>• Adapt work if necessary</li> <li>• Dismantle, examine, talk about existing objects/structures</li> <li>• Consider and manage some risks</li> <li>• Practise some appropriate safety measures independently</li> <li>• Talk about how things work</li> <li>• Look at similarities and differences between existing objects / materials / tools</li> <li>• Show an interest in technological toys</li> <li>• Describe textures</li> <li>• <b>Share their creations, explaining the process they have used (ELG)</b></li> </ul>	<ul style="list-style-type: none"> <li>• talk about my work, linking it to what I was asked to do</li> <li>• talk about existing products considering: use, materials, how they work, audience, where they might be used</li> <li>• talk about existing products, and say what is and isn't good</li> <li>• talk about things that other people have made</li> <li>• begin to talk about what could make product better</li> </ul>	<ul style="list-style-type: none"> <li>• describe what went well, thinking about design criteria</li> <li>• talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion</li> <li>• evaluate how good existing products are talk about what I would do differently if I were to do it again and why</li> </ul> <p><b>End of KS Expectations:</b></p> <ul style="list-style-type: none"> <li>• Explore and evaluate a range of existing products</li> <li>• Evaluate their ideas and products against design criteria</li> </ul>
Technical Knowledge – Materials & Structures		<ul style="list-style-type: none"> <li>• begin to measure and join materials, with some support</li> <li>• describe differences in materials</li> <li>• suggest ways to make</li> </ul>	<ul style="list-style-type: none"> <li>• measure materials</li> <li>• describe some different characteristics of materials</li> <li>• join materials in different ways</li> </ul>

		material/product stronger	<ul style="list-style-type: none"> <li>• use joining, rolling or folding to make it stronger</li> <li>• use own ideas to try to make product stronger</li> </ul> <p><b>End of KS Expectations:</b></p> <ul style="list-style-type: none"> <li>• Build structures, exploring how they can be made stronger, stiffer and more stable</li> </ul>
Technical Knowledge – Mechanisms		<ul style="list-style-type: none"> <li>• begin to use levers or slides</li> </ul>	<p><b>End of KS Expectations:</b></p> <ul style="list-style-type: none"> <li>• begin to understand how to use wheels and axles</li> <li>• Explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products</li> </ul>
Technical Knowledge – Textiles		<ul style="list-style-type: none"> <li>• measure, cut and join textiles to make a product, with some support</li> <li>• choose suitable textiles</li> </ul>	<ul style="list-style-type: none"> <li>• measure textiles</li> <li>• join textiles together to make a product, and explain how I did it</li> <li>• carefully cut textiles to produce accurate pieces</li> <li>• explain choices of textile</li> <li>• understand that a 3D textile structure can be made from two identical fabric shapes</li> </ul>
Technical Knowledge – Food and Nutrition	<ul style="list-style-type: none"> <li>• Begin to understand some food preparation tools, techniques and processes</li> <li>• Practise stirring, mixing,</li> </ul>	<ul style="list-style-type: none"> <li>• describe textures</li> <li>• wash hands &amp; clean surfaces</li> <li>• think of interesting ways to</li> </ul>	<ul style="list-style-type: none"> <li>• explain hygiene and keep a hygienic kitchen</li> <li>• describe properties of ingredients and importance</li> </ul>

	<ul style="list-style-type: none"> <li>• pouring, blending</li> <li>• Discuss how to make an activity safe and hygienic</li> <li>• Discuss use of senses</li> <li>• Understand need for variety in food</li> <li>• Begin to understand that eating well contributes to good health</li> </ul>	<p>decorate food</p> <ul style="list-style-type: none"> <li>• say where some foods come from, (i.e. plant or animal)</li> <li>• describe differences between some food groups (i.e. sweet, vegetable etc.)</li> <li>• discuss how fruit and vegetables are healthy</li> <li>• cut, peel and grate safely, with support</li> </ul>	<p>of varied diet</p> <ul style="list-style-type: none"> <li>• say where food comes from (animal, underground etc.)</li> <li>• describe how food is farmed, home-grown, caught</li> <li>• draw eat well plate; explain there are groups of food</li> <li>• describe “five a day”</li> <li>• cut, peel and grate with increasing confidence</li> </ul>
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