



## Design and Technology end of year milestones 2022-23

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Articulate their ideas and thoughts in well-formed sentences.  Ask questions to find out more and to check they understand what has been said to them (C&L)      Explore, use and refine a variety of artistic effects to express their ideas and feelings. (PD)      Explore how things work. (UtW)	Design appealing products for a particular user based on simple design criteria.     Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.     Communicate these ideas through talk and drawings.	<ul> <li>Develop and communicate ideas through drawings and mock-ups.</li> <li>Design appealing products for a particular user based on simple design criteria.</li> <li>Generate initial ideas and design criteria through investigating a variety of fruit and vegetables.</li> <li>Communicate these ideas through talk and drawings.</li> </ul>	Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product.     Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas.	Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product.     Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas.      Make design decisions that take account of the availability of resources	Carry out research, using surveys, interviews, questionnaires and webbased resources Identify the needs, wants, preferences and values of particular individuals and groups Generate innovative ideas, drawing on research	Carry out research, using surveys, interviews, questionnaires and webbased resources Identify the needs, wants, preferences and values of particular individuals and groups Develop a simple design specification to guide their thinking Generate innovative ideas, drawing on research Make design decisions, taking account of constraints such as time, resources and cost
Make	Develop their small motor skills so that they can use a range of tools competently, safely and confidently     Use one-handed tools and equipment, for example, making snips in paper with scissors.     (PD)      They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. (EAD)	Plan by suggesting what to do next.  Select and use appropriate tools, explaining their choices.  Use simple finishing techniques suitable for the product they are creating.	Plan by suggesting what to do next.  Use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components  Assemble, join and combine materials and components	Order the main stages of making. Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities. Use finishing techniques suitable for the product they are creating	Order the main stages of making. Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. Explain their choice of materials according to functional properties and aesthetic qualities.	Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy.  Explain their choice of materials according to functional properties and aesthetic qualities.  Produce appropriate lists of tools, equipment and materials that they need	Select and use appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy.  Explain their choice of materials according to functional properties and aesthetic qualities.  Formulate step-by-step plans as a guide to making  Use techniques that involve a number of steps
Evaluate	Uses talk to organise, sequence and clarify thinking, ideas, feelings and events (CL)  Share their creations, explaining the process they have used. (EAD)	Evaluate ideas and finished products against design criteria, including intended user and purpose.	Talk about their design ideas and what they are making     Make simple judgements about their products and ideas against design criteria     suggest how their products could be improved	Test and evaluate their own products against design criteria and the intended user and purpose. Refer to their design criteria as they design and make Use their design criteria to	Test and evaluate their own products against design criteria and the intended user and purpose. Refer to their design criteria as they design and make Use their design criteria to	Identify the strengths and areas for development in their ideas and products     Consider the views of others, including intended users, to improve their work	Identify the strengths and areas for development in their ideas and products     Consider the views of others, including intended users, to improve their work

				evaluate their completed products	evaluate their completed products	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make     Evaluate their ideas and products against their original design specification
Technical Knowledge and Understanding	Use new vocabulary in different contexts. (C&L)     Return to and build on their previous learning, refining ideas and developing their ability to represent them. (EA&D)	How freestanding structures can be made stronger, stiffer and more stable     Know and use technical vocabulary relevant to the project.	Know about the simple working characteristics of materials and components     Know about the movement of simple mechanisms such as levers, sliders, wheels and axles     Know and use technical vocabulary relevant to the project.	Know how to use learning from science to help design and make products that work     Know that materials have both functional properties and aesthetic qualities     Know the correct technical vocabulary for the projects they are undertaking	Know how to use learning from mathematics to help design and make products that work     Know that materials have both functional properties and aesthetic qualities     Know that mechanical and electrical systems have an input, process and output     Know the correct technical vocabulary for the projects they are undertaking	Know how more complex electrical circuits and components can be used to create functional products     Know that a recipe can be adapted by adding or substituting one or more ingredients     Know the correct technical vocabulary for the projects they are undertaking	Nnow how mechanical systems such as cams or pulleys or gears create movement  Nnow how to reinforce and strengthen a 3D framework  Nnow that a 3D textiles product can be made from a combination of fabric shapes  Nnow that a recipe can be adapted by adding or substituting one or more ingredients  Nnow the correct technical vocabulary for the projects they are undertaking