	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design expe	of key stage ectation: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories Contribute and talk about ideas Contribute and talk about the planning of a product Begin to use language of designing and making including join, build, shape, longer shorter heavier etc.	End of key stage expectation: - Children design purposeful, functional, appealing productions for themselves and other users based on design criteria. - Children can generate, develop, model and communicate their ideas through talking, drawing, templates, mockups and, where appropriate, information and communication technology. Children can: - Have their own ideas. - Say what they want to do. - Say what the product is and what it is used for. - Use simple pictures, drawings, templates and words to talk about and plan their design. - Design a product. - Follow a design criteria. - Research and talk about similar existing products. - Discuss and name the most appropriate tools	End of key stage expectation: - Children design purposeful, functional, appealing productions for themselves and other users based on design criteria. - Children can generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology. Children can: - Have their own ideas and be able to plan what they do next. - Explain what they want to design and have ideas about how they might design it. - Explain the purpose of the product is and what is for. - Describe how the product will work and how it is suitable for the user. - Use pictures, words, drawings, templates and mock-ups to plan and discuss their design. - Design a product. - Follow a design criteria. - Research and discuss other similar existing products. - Choose and name the best tools and materials and explain why they chose them.	End of key stage expectation: Children 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. Children generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Children can: Use their knowledge of a range of existing products and research to help generate their own ideas. Describe the purpose of the product and say how it meets a range of requirements. Design innovative and appealing products that have a clear purpose and are aimed at a particular individual or group. Begin to develop their own design criteria. Create and discuss their plan and say how particular parts of their product will work. Use annotated sketches and cross-sectional drawings to discuss and communicate their ideas. Start to explain their choice of tools and materials including their functions and aesthetics. Explore different designs and ideas before coming up with the final design. Test out ideas using	End of key stage expectation: - Children 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 - Children generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Children can: - Use their knowledge of a range of existing products and research to help generate their own ideas. - Explain the purpose of the product and explain how it meets a range of requirements. - Begin to develop their own design criteria and explain the importance. - Design innovative and appealing products that have a clear purpose and are aimed at particular individuals or groups. - Create and discuss their plan with others and explain how a particular part of their product will work. - Use annotated sketches and cross-sectional drawings to explain and communicate their ideas. - Explain their choice of tools and materials including their functions and aesthetics. - Identify and discuss	End of key stage expectation: - Children 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. - Children generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computeraided design. Children can: - Begin to use the internet and other sources to support research and design ideas. - Begin to take a user's view into account when designing the product. - Use their knowledge of a range of existing products to support generating their own ideas. - Create own design criteria. - Produce a logical, realistic plan, explaining the product and its parts clearly to others. - Explain the purpose of the product and explain how it meets a range of requirements. - Make design decisions considering time and resources. - Model and refine how products will work using prototypes.	End of key stage expectation: - Children 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. - Children generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Children can: - Use a range of different research sources including market research to inform and develop a detailed design criteria. - Design innovative, functional and appealing products that are fit for purpose and aimed at a specific target audience. - Take a user's view into account when designing the product. - Use their knowledge of a range of existing products to support generating their own ideas. - Produce and refine a logical, realistic plan, explaining the product and its parts clearly to others. - Explain the purpose of the product and explain how it meets a range of requirements. - Make design decisions considering time, cost and resources.

	and materials for the product.	Make and explain their decisions considering all requirements including resources. Explore different designs and ideas before coming up with the final design. Test out ideas using prototypes.	 Generate a range of ideas and clearly communicate their final design. Use annotated sketches, cross-sectional drawings and exploded diagrams to explain and communicate their ideas. Design products that have a clear purpose and indicate the design features of their products that will appeal to particular individuals or groups. 	 Model and refine how products will work using prototypes. Generate a range of ideas and clearly communicate their final design. Use annotated sketches, cross-sectional drawings and exploded diagrams to explain and communicate their ideas.
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	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make	function. Share their creations, explaining the process they have used.	- Children can select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Children can select from and use a wide range of materials and components, including construction materials, textiles and	- Children can select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] Children can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Children can:	- Children can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. - Children can 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.	- Children can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. - Children can 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.	End of key stage expectation: - Children can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. - Children can select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and	End of key stage expectation: - Children can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. - Children can select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and
	Make use of props and materials when role playing characters in narratives and stories. Children can: - Safely use and explore basic tools, and materials Learn basic techniques Experiment with different colours, design, texture, form and function Make use of props and materials when role playing characters in narratives and stories Begin to use language of designing and making including join, build, shape,	ingredients, according to their characteristics. Children can: - Follow a simple plan or recipe with support. - Begin to select appropriate tools from a range of hand tools and equipment including scissors, graters and safe knifes. - Select tools or equipment to cut, shape, join, finish and begin to explain their choice. - Begin to select and use a range of different materials components. - Say what I am making and why. - Learn to follow hygiene procedures and work safely. - Measure and mark out with support. - Begin to use a basic running stitch.	 Follow a simple plan or recipe more with minimal support. Begin to select appropriate tools from a range of hand tools and equipment including scissors, zesters graters and safe knifes. Select tools or equipment to cut, shape, join, finish and explain their choice. Select from a range of different materials, foods and textiles and explain their choice. Say what I am making and explain how it fits the purpose. Select and use a range of different materials and components. Begin to make suggestions on what to do next. Learn to follow hygiene procedures and work safely. Measure and mark out with minimal support. Use a basic running stitch. Cut, peel and grate ingredients. 	Children can: - Follow a plan or recipe independently. - With more confidence, select from a range of tools and equipment, talking about their choices. - Discuss thoughts on how good a product will be. - With more confidence, measure and mark out to the nearest centimetre. - Select and use a range of materials and components including construction materials and mechanical and electrical components. - Begin to cut, shape and score materials with some accuracy. - Begin to assemble, join and combine materials and components with some accuracy. - Begin to join fabrics and materials with the appropriate sewing technique and stitch. - Begin to use a range of finishing techniques and decorations to improve the appearance of a product.	 Children can: Follow a plan or recipe independently. With more confidence, select from a range of tools and equipment, explaining their choices. Discuss and explain thoughts on the quality of the product. Measure and mark out to the nearest centimetre and millimetre. Select and use a wide range of materials and components including construction materials and mechanical and electrical components. Cut, shape and score materials with some accuracy. Assemble, join and combine materials and components with some accuracy. Join fabrics and materials with the appropriate sewing technique and stitch. Select and use a range of different finishing 	aesthetic qualities. - Follow a detailed plan or recipe independently and confidently Confidently select from a wide range of tools and equipment explaining why they are the best choice Independently measure and mark out to the nearest millimetre Select and use from a full range of different materials and components including construction materials and mechanical and electrical components Cut, shape and score materials, growing confidence with accuracy Assemble, join and combine materials and components, growing	aesthetic qualities. - Follow a detailed plan or recipe independently and confidently Confidently select from a wide range of tools and equipment explaining why they are the best choice Independently and confidently measure and mark out to the nearest millimetre Select and use from a full range of different materials and components including construction materials and mechanical and electrical components Cut, shape and score materials with precision and accuracy Assemble, join and combine materials and components with precision and accuracy.

longer shorter heavier etc Build/ construct with a wide range of objects Begin to record experiences by drawing, writing and talking.	 Cut and peel ingredients. Measure and weigh using electronic scales. Simple decoration and finishing techniques. 			techniques and decorations to improve the appearance of a product.	confidence with accuracy. - Select and join fabrics and materials with the appropriate sewing technique and stitch.	- Select and join different fabrics and materials using a variety of stitches and sewing techniques.
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	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluate	End of key stage expectation: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour,	End of key stage expectation: - Children can explore and evaluate a range of existing products. - Children can evaluate their ideas and products against design criteria. Children can: - Talk about their product and with support begin linking it to the design criteria. - Discuss, explore and evaluate existing products. - Simple written or	End of key stage expectation: - Children can explore and evaluate a range of existing products Children can evaluate their ideas and products against design criteria. Children can: - Describe their product and linking it to the design criteria Discuss, explore and evaluate existing products Simple written evaluations Discuss and explain their	- Children can investigate and analyse a range of existing products Children can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Children can understand how key events and individuals in design and technology have helped shape the world. Children can: - Explore and discuss existing products considering the intended user.	Find of key stage expectation: - Children can investigate and analyse a range of existing products Children can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Children can understand how key events and individuals in design and technology have helped shape the world. Children can: - Explore and evaluate	End of key stage expectation: - Children can investigate and analyse a range of existing products Children can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Children can understand how key events and individuals in design and technology have helped shape the world. Children can: - Evaluate and analysis	- Children can investigate and analyse a range of existing products Children can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Children can understand how key events and individuals in design and technology have helped shape the world. Children can: Children can:
	materials when role playing characters in narratives and stories. Children can: - Share their creations Talk and discuss their product Explain the process they have used.	verbal evaluations. Talk about their design ideas and what they are making. Begin to identify strengths and improvements with existing products and their own product. With support evaluate their products and ideas against the design criteria.	design ideas and what they are making. Identify strengths and improvements with existing products and their own product. Evaluate their products and ideas against the design criteria.	 Use the design criteria to alter plans during the process. Evaluate their products and ideas against the design criteria. Learn and discuss individuals and key events that have helped shaped the world. 	 Explore and evaluate existing products considering the intended user and explaining the purpose of the product. Use the design criteria to alter plans during the process considering the views of others to help improve their product. Evaluate their products and ideas against the design criteria. Learn, discuss and evaluate individuals and key events that have helped shaped the world. 	existing products considering the intended user and explaining the purpose of the product. - Use their own design criteria to alter plans during the process considering the views of others to help improve their product. - Evaluate their products and ideas against their own design criteria. - Learn, discuss and evaluate a range of individuals and key events that have helped shaped the world. - Evaluate the quality of design, manufacture and fitness for purpose of existing products and their own products. - Consider the impact of products.	 Evaluate and analysis existing products considering the intended user and explaining the purpose of the product. Use their own design criteria to alter plans during the process considering the views of others to help improve their product. Evaluate their products against their own design criteria and make changes when needed. Learn, discuss and evaluate a wide range of individuals and key events that have helped shaped the world. Evaluate the quality of design, manufacture and fitness for purpose of existing products and their own products. Consider and evaluate the impact of products.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	End of key stage expectation:	End of key stage expectation:	End of key stage expectation: - Children can build	End of key stage expectation: - Children can apply their	End of key stage expectation: - Children can apply their	End of key stage expectation: - Children can apply their	End of key stage expectation:
	Children can:	- Children can build structures, exploring how they can be made stronger, stiffer	structures, exploring how they can be made stronger, stiffer and more stable.	understanding of how to strengthen, stiffen and reinforce more complex structures.	understanding of how to strengthen, stiffen and reinforce more complex structures.	understanding of how to strengthen, stiffen and reinforce more complex structures.	- Children can apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
Technical Knowledge: Materials/ structures		and more stable. Children can: With support begin to measure and join materials. Begin to describe the differences between materials. Begin to suggest improvements for a product. With support build simple structures	- Build structures, exploring how they can be made stronger, stiffer and more stable. - Talk about and begin to understand different materials and components using key vocabulary. - Describe similarities and differences in materials. - Share ideas and begin to use ideas to improve	- Begin to understand that materials have functional properties as well as aesthetic qualities Begin to apply their understanding of strengthening, stiffening and reinforcing different structures Select appropriate materials Be able to work accurately to make cuts and holes in materials Confidently be able to join	- Understand that materials have functional properties as well as aesthetic qualities Apply their understanding of strengthening, stiffening and reinforcing more complex structures Measure carefully avoiding any mistakes Continue working on improving a products even if original ideas haven't worked	- Apply their understanding of strengthening, stiffening and reinforcing more complex structures independently Explain how products meet the design criteria Measure accurately Ensure product is fit for purpose and strong.	- Apply their understanding of strengthening, stiffening and reinforcing more complex structures independently and confidently Explain how a product meets the design criteria and ensure the product is fit for purpose.
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technical Knowledge: Mechanisms	End of key stage expectation: Children can: -	End of key stage expectation: - Children can explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products. - Children can: - Discuss, explore and use simple mechanisms such as levers and sliders in their products.	End of key stage expectation: - Children can explore and use mechanisms (for example, levers, sliders, wheels and axles), in their products. - Children can: - Discuss, explore and use simple mechanisms such as levers, sliders, wheels and axles in their products.	- Children can understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) Children can: - Explore and use mechanical systems in their products Use simple lever and linkages to create movement With support, select appropriate tools and techniques With support, begin to improve products after checking to make it better With support, begin to try new and different ideas.	- Children can understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) Children can: - Discuss, explore and use mechanical systems in their products and explain how they work/create movement Confidently select appropriate tools and techniques Confidently improve products after checking to make it better Explain how altering the product will make it better.	- Children can understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages). - Explain how mechanical systems create movement and use them in their products. - Refine and improve products after testing. - Continue to grow in confidence when trying new and different ideas. - Begin to use cams, pulleys or gears to create movement.	- Children can understand and use mechanical systems in their products (for example, gears, pulleys, cams, levers and linkages) Children can: - Explain how mechanical systems create movement and use them in their products Use cams, pulleys and gears to create movement Confidently try new and different ideas Refine and improve products after testing, carefully considering

	 With growing confidence, try new and different ideas. Use lever and linkages to create movement. 	purpose, function and aesthetics.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technical Knowledge: Electrical systems	End of key stage expectation: Children can:	End of key stage expectation: Children can:	End of key stage expectation: Children can:	- Children can understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) Children can apply their understanding of computing to program, monitor and control their products. Children can: - Use simple circuits in a product Begin to learn how to program a computer to control a product.	End of key stage expectation: - Children can understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) Children can apply their understanding of computing to program, monitor and control their products. Children can: - Understand and make simple electrical circuits to create functional productions using a number of components Understand explain how electrical systems work Program a computer to control a product.	- Children can understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) Children can apply their understanding of computing to program, monitor and control their products. Children can: - Understand, explain and demonstrate how electrical systems work Incorporate switches into a product Confidently use a number of components in a circuit Begin to be able to program a computer to monitor changes in environments and to control a product.	- Children can understand and use electrical systems in their products (for example, series circuits incorporating switches, bulbs, buzzers and motors) Children can apply their understanding of computing to program, monitor and control their products. - Explain how mechanical systems create movement and use them in their products. - Understand, explain and demonstrate how electrical systems work Use a range of different types circuits in products Consider ways in which adding a circuit would improve a product Program a computer to monitor changes in environments and to control a product.

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technical Knowledge: Textiles	End of key stage expectation: Children can:	End of key stage expectation: Children can: With support, measure, cut and join textiles to make a product. Begin to choose appropriate textiles. Know and use technical vocabulary correctly.	Children can: Carefully measure, cut and join textiles to make a product and explain how. Begin to choose appropriate textiles and explain choices. Know and use technical vocabulary correctly. Begin to understand how 3D textile structures are made using two identical fabric shapes.	Children can: Carefully measure, cut and join textiles, using different techniques, to make a product and explain how. Begin to choose appropriate textiles and explain choices, considering appearance and function. Know and use technical vocabulary correctly.	Children can: - Carefully measure, cut and join textiles, using different techniques including cross stitch, to make a product and explain how. - Begin to choose appropriate textiles and explain choices, considering appearance, purpose, user and function. - Know and use technical vocabulary correctly.	Children can: - Carefully, think about the user, intent and aesthetics when choosing textiles Use own template - Think carefully about how to make a product stronger and better suited for purpose Explain how to join fabrics in a range of different ways Know and use technical vocabulary correctly.	Children can: - Confidently think about users wants/needs, intents and aesthetics when choosing textiles. - Think about how a product might be sold. - Carefully think about how to improve a product. - Make a prototype. - Know and use technical vocabulary correctly.

		 Begin to devise a template and explain how to join fabrics in different ways. 	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technical Knowledge: Cooking and Nutrition	End of key stage expectation: - Begin to understand some foods and simple preparation tools, techniques and processes. - Begin to understand some foods and simple preparation tools, techniques and processes. - With support practice mixing, blending, stirring and pouring. - With support discuss how to make an activity safe and hygienic. - Use senses to discuss foods. - Begin to understand the concept and importance of eating healthy. - Use technical vocabulary.	End of key stage expectation: - Children can use the basic principles of a healthy and varied diet to prepare dishes. - Children understand where food comes from. Children can: - Use senses to discuss foods and describe textures. - Explain the importance of washing hands and cleaning surfaces. - Begin to decorate foods in interesting ways. - Discuss where some foods come from. - Begin to discuss different food groups. - Cut, and peel safely and confidently. - Begin to understand that eating healthy contributes to good health. - Know and use technical vocabulary.	End of key stage expectation: - Children can use the basic principles of a healthy and varied diet to prepare dishes. - Children understand where food comes from. Children can: - Explain what hygiene is and how to keep the working space/kitchen clean. - Describe the importance of a varied balanced healthy diet. - Discuss where foods come from. - Explain the different food groups. - Explain the importance of 'five a day' - Cut, peel and grate with confidence.	End of key stage expectation: - Children understand and apply the principles of a healthy and varied diet. - Children can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. - Children understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. - Carefully select ingredients. - Use equipment safely. - Decorate and make product look attractive. - Think about how to grow plants they can use when cooking. - Begin to understand food comes from the UK and other countries. - Explain a healthy diet, considering variety, balance of foods and drinks. - Explain how food and drink are needed for an active and healthy body. - Prepare and cook some simple dishes safely and hygienically. - Grow confidence using different techniques including peeling, chopping, baking, grating, mixing, kneading and spreading.	End of key stage expectation: - Children understand and apply the principles of a healthy and varied diet. - Children can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. - Children understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: - Present product in an interesting and attractive way. - Explain how to be safe and hygienic when cooking. - Understand that some ingredients can be fresh, pre-cooked, reared or processed. - Begin to understand food being grown and caught in the UK and other countries. - Describe the importance of a eat well plate and healthy diet considering variety, balance of food and drinks. - Explain the importance of food and drink for a healthy and active body. - Prepare and cook some dishes safely, hygienically and confidently. - Use some of the following techniques: peeling, chopping, slicking, grating, mixing, spreading, kneading and baking.	End of key stage expectation: Children understand and apply the principles of a healthy and varied diet. Children can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Children understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: Explain how to be safe and hygienic and follow own guidelines. Present product well considering decoration, presentation, attractive and fit for purpose. Begin to season and understand seasonality of foods. Understand food being grown, reared and caught in the UK and the wider world. Begin to describe how recipes can be adapted to change appearance, texture and taste. Begin to explore and describe the different substances in food and drink that are needed for health. Prepare and cook some savoury dishes safely and hygienically, using a heat source where appropriate. Use a range of the following techniques:	End of key stage expectation: - Children understand and apply the principles of a healthy and varied diet. - Children can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. - Children understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Children can: - Understand and be able to adapt a recipe by adding or substituting ingredients. - Explain seasonality of foods. - Be able to name types of foods that are grown, reared or caught in the UK or the wider world. - Confidently adapt recipes to change appearance, texture and taste. - Explore and describe the different substances in food and drink that are needed for health and how they affect health. - Prepare and cook some savoury dishes safely and hygienically, using a heat source where appropriate. - Confidently use a wide range of the following techniques: peeling, chopping, slicking, grating, mixing,

					peeling, chopping, slicking, grating, mixing, spreading, kneading and baking.	spreading, kneading and baking.
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