

Design and Technology Progression

Years 1-6

	EYFS	1	2	3	4	5	6
Evaluation of existing products		- Explore existing products and investigate how they have been made. - Decide how existing products do/do not achieve their purpose.	- Explore existing products and investigate how they have been made. - Decide how existing products do/do not achieve their purpose. - Talk about their design as they develop and identify good and bad points. - Note changes made during the making process as annotation to plans/drawings.	- Investigate similar products to the one to be made to give starting points for a design. - Research needs of user. - Draw/sketch products to help analyse and understand how products are made. - Identify the strengths and weaknesses of their design ideas in relation to purpose/user. - Decide which design idea to develop.	- Investigate similar products to the one to be made to give starting points for a design. - Research needs of user. - Draw/sketch products to help analyse and understand how products are made. - Identify the strengths and weaknesses of their design ideas in relation to purpose/user. - Investigate key events and individuals in design and technology.	- Research and evaluate existing products (including book and web based research). - Consider user and purpose. - Identify the strengths and weaknesses of their design ideas. - Consider and explain how the finished product could be improved related to design criteria. - Discuss how well the finished product meets the design criteria of the user. Test on the user. - Give a report using correct technical vocabulary. - Understand how key people have influenced design.	- Research and evaluate existing products (including book and web based research). - Consider user and purpose. - Understand how key people have influenced design.

Mechanisms	▪	▪ Join appropriately for different materials and situations e.g. glue, tape. ▪ Mark out materials to be cut using a template. ▪ Fold, tear and cut paper and card. ▪ Cut along lines, straight and curved. ▪ Use a hole punch. ▪ Insert paper fasteners for card. ▪ Experiment with levers and sliders to find different ways of making things move in a 2D plane.	▪ Join appropriately for different materials and situations e.g. glue, tape. ▪ Try out different axle fixings and their strengths and weaknesses. ▪ Make vehicles with construction kits which contain free running wheels. ▪ Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels. ▪ Cut dowel using hacksaw and bench hook. ▪ Attach wheels to a chassis using an axle.	▪ Develop vocabulary related to the project. ▪ Use mechanical systems such as levers and linkages. ▪ Use lolly sticks/card to make levers and linkages. ▪ Use linkages to make movement larger or more varied.		▪ Develop a technical vocabulary appropriate to the project. ▪ Use mechanical systems such as cams, pulleys and gears. ▪ Use electrical systems such as motors.	▪ Develop a technical vocabulary appropriate to the project. ▪ Use mechanical systems such as cams, pulleys and gears. ▪ Use electrical systems such as motors. ▪ Program, monitor and control using ICT.
Food	▪ Use a range of small tools, including cutlery.	▪ Develop a food vocabulary using taste, smell, texture and feel. ▪ Group familiar food products e.g. fruit and vegetables. ▪ Explain where food comes from. ▪ Cut, peel, grate, chop a range of ingredients. ▪ Work safely and hygienically. ▪ Understand the need for a variety of foods in a diet. ▪ Measure and weigh food items, non-	▪ Develop a food vocabulary using taste, smell, texture and feel. ▪ Group familiar food products e.g. fruit and vegetables. ▪ Explain where food comes from. ▪ Cut, peel, grate, chop a range of ingredients. ▪ Work safely and hygienically. ▪ Understand the need for a variety of foods in a diet. ▪ Measure and weigh food items, non	▪ Develop sensory vocabulary and knowledge using, smell, taste, texture and feel. ▪ Analyse the taste, texture, smell and appearance of a range of foods which are predominantly savoury. ▪ Follow instructions and/or recipes. ▪ Make healthy eating choices – use the eatwell plate. ▪ Join and combine a range of ingredients.	▪ Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. ▪ Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury). ▪ Follow instructions/recipes. ▪ Make healthy eating choices – use the <i>Eatwell plate</i>. ▪ Join and combine a range of ingredients.	▪ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▪ Weigh and measure using scales. ▪ Select and prepare foods for a particular purpose. ▪ Work safely and hygienically. ▪ Use a range of cooking techniques. ▪ Know where and how ingredients are	▪ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▪ Weigh and measure using scales. ▪ Select and prepare foods for a particular purpose. ▪ Work safely and hygienically. ▪ Show awareness of a healthy diet (using the eatwell plate). ▪ Use a range of cooking techniques.

		standard measures e.g. spoons, cups.	statutory measures e.g. spoons, cups.	- Explore seasonality of vegetables and fruit. - Develop understanding of how meat or fish are reared and caught.	- Explore seasonality of vegetables and fruit. - Develop understanding of how meat/fish are reared/caught.	grown and processed.	- Know where and how ingredients are grown and processed. - Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc.
Textiles	Use a range of small tools, including scissors.		- Cut out shapes which have been created by drawing round a template onto the fabric. - Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. - Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. - Colour fabrics using a range of techniques e.g. fabric paints, printing, painting.		- Develop vocabulary for tools, materials and their properties. - Understand seam allowance. - Join fabrics using running stitch, over sewing, blanket stitch. - Prototype a product using J cloths. - Use prototype to make pattern. - Explore strengthening and stiffening of fabrics. - Explore fastenings (inventors?) and recreate some. - Sew on buttons and make loops. - Use appropriate decoration techniques.	- Use the correct vocabulary appropriate to the project. - Create 3-D products using patterns pieces and seam allowance. - Understand pattern layout. - Decorate textiles appropriately (often before joining components). - Pin and tack fabric pieces together. - Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). - Combine fabrics to create more useful properties. - Make quality products.	

Structures	Use a range of small tools, including scissors.	- Explore how to make structures stronger. - Investigate different techniques for stiffening a variety of materials. - Test different methods of enabling structures to remain stable. - Join appropriately for different materials and situations e.g. glue, tape. - Mark out materials to be cut using a template. - Use a glue gun with close supervision.		- Develop vocabulary related to the project. - Create shell or frame structures. - Strengthen frames with diagonal struts. - Make structures more stable by giving them a wide base. - Measure and mark square section, strip and dowel accurately to one centimetre.			- Develop a technical vocabulary appropriate to the project. - Use mechanical systems such as cams, pulleys and gears. - Use electrical systems such as motors. - Program, monitor and control using ICT.
Mechanical	- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Use a range of small tools, including scissors.	- Join appropriately for different materials and situations e.g. glue, tape. - Mark out materials to be cut using a template. - Fold, tear and cut paper and card. - Cut along lines, straight and curved. - Use a hole punch. - Insert paper fasteners for card. - Experiment with levers and sliders to find different ways of making things move in a 2D plane.	- Join appropriately for different materials and situations e.g. glue, tape. - Try out different axle fixings and their strengths and weaknesses. - Make vehicles with construction kits which contain free running wheels. - Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.	- Develop vocabulary related to the project. - Use mechanical systems such levers and linkages. - Use lolly sticks/card to make levers and linkages. - Use linkages to make movement larger or more varied.	- Use electrical systems such as switches, bulbs and buzzers. - Develop vocabulary related to the project. - Use ICT to control products.	- Develop a technical vocabulary appropriate to the project. - Use mechanical systems such as cams, pulleys and gears. - Use electrical systems such as motors.	- Develop a technical vocabulary appropriate to the project. - Use mechanical systems such as cams, pulleys and gears. - Use electrical systems such as motors. - Program, monitor and control using ICT.

			▪ Cut dowel using hacksaw and bench hook. ▪ Attach wheels to a chassis using an axle.				
Design	▪ Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	▪ Use pictures and words to convey what they want to design/make. ▪ Propose more than one idea for their product. ▪ Use kits/reclaimed materials to develop more than one idea. ▪ Select appropriate technique explaining First... Next... Last.... ▪ Explore ideas by rearranging materials. ▪ Select pictures to help develop ideas. ▪ Use drawings to record ideas as they are developed. ▪ Add notes to drawings to help explanations. ▪ Describe their models and drawings of ideas and intentions.	▪ Use pictures and words to convey what they want to design/make. ▪ Propose more than one idea for their product. ▪ Use kits/reclaimed materials to develop more than one idea; model ideas with kits, reclaimed materials. ▪ Select pictures to help develop ideas. ▪ Use drawings to record ideas as they are developed. ▪ Talk about their design as they develop and identify good and bad points. ▪ Note changes made during the making process as annotation to plans/drawings. ▪ Add notes to drawings to help explanations. ▪ Describe their models and drawings of ideas and intentions.	▪ Develop more than one design or adaptation of an initial design. ▪ Plan a sequence of actions to make a product. ▪ Record the plan by drawing using annotated sketches. ▪ Use prototypes to develop and share ideas. ▪ Think ahead about the order of their work and decide upon tools and materials. ▪ Propose realistic suggestions as to how they can achieve their design ideas.	▪ Develop more than one design or adaptation of an initial design. ▪ Decide which design idea to develop. ▪ Plan a sequence of actions to make a product. ▪ Record the plan by drawing using annotated sketches. ▪ Use prototypes to develop and share ideas. ▪ Think ahead about the order of their work and decide upon tools and materials. ▪ Propose realistic suggestions as to how they can achieve their design ideas. ▪ Consider aesthetic qualities of materials chosen.	▪ Plan the sequence of work e.g. using a storyboard. ▪ Record ideas using annotated diagrams. ▪ Combine modelling and drawing to refine ideas. ▪ Devise step by step plans which can be read / followed by someone else. ▪ Use exploded diagrams and cross-sectional diagrams to communicate ideas. ▪ Sketch and model alternative ideas. ▪ Decide which design idea to develop.	▪ Plan the sequence of work e.g. using a storyboard. ▪ Use models and kits to help formulate design ideas. ▪ Combine modelling and drawing to refine ideas. ▪ Use exploded diagrams and cross-sectional diagrams to communicate ideas. ▪ Model alternative ideas. ▪ Decide which design idea to develop.

Make	- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Use a range of small tools, including scissors, paint brushes and cutlery.	- Discuss their work as it progresses. - Select materials from a limited range that will meet the design criteria. - Select and name the tools needed to work the materials. - Explain what they are making. - Explain which materials they are using and why. - Name the tools they are using. - Describe what they need to do next. - Talk about their design as they develop and identify good and bad points. - Note changes made during the making process as annotation to plans/drawings.	- Discuss their work as it progresses. - Select materials from a limited range that will meet the design criteria. - Select and name the tools needed to work the materials. - Explain what they are making. - Explain which materials they are using and why. - Name the tools they are using. - Describe what they need to do next.	- Prepare pattern pieces as templates for their design. - Cut slots. - Cut internal shapes. - Select from a range of tools for cutting, shaping, joining and finishing. - Use tools with accuracy. - Select from techniques for different parts of the process. - Select from materials according to their functional properties. - Plan the stages of the making process. - Use appropriate finishing techniques.	- Prepare pattern pieces as templates for their design. - Use tools with accuracy. - Select from techniques for different parts of the process. - Select from materials according to their functional properties. - Plan the stages of the making process. - Use appropriate finishing techniques.	- Make prototypes. - Develop one idea in depth. - Use researched information to inform decisions. - Produce detailed lists of components and tools. - Select from and use a wide range of tools. - Cut accurately and safely to a marked line. - Use appropriate finishing techniques for the project. - Refine their product – review and rework/improve.	- Make prototypes. - Develop one idea in depth. - Use researched information to inform decisions. - Produce detailed lists of ingredients / components / materials and tools. - Use a computer to model ideas. - Select from and use a wide range of tools. - Cut accurately and safely to a marked line. - Select from and use a wide range of materials. - Use appropriate finishing techniques for the project. - Refine their product – review and rework/improve.
Evaluation	Share their creations, explaining the process they have used;	- Say what they like and do not like about items they have made and attempt to say why. - Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.	- Say what they like and do not like about items they have made and attempt to say why. - Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user.	- Consider and explain how the finished product could be improved. - Discuss how well the finished product meets the design criteria of the user. - Investigate key events and individuals in design and technology.	- Consider and explain how the finished product could be improved. - Discuss how well the finished product meets the design criteria of the user. - Investigate key events and individuals in design and technology.	- Give a report using correct technical vocabulary. - Understand how key people have influenced design. - Consider and explain how the finished product could be improved related to design criteria. - Discuss how well the finished product meets the design criteria of the user. Test on the user.	- Give a report using correct technical vocabulary. - Consider and explain how the finished product could be improved related to design criteria. - Discuss how well the finished product meets the design criteria of the user. Test on the user. - Understand how key people have influenced design.