Design and Technology Progression

Years 1-6

	Reception	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 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 *Eatwell plate.* ▪ 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	▪ Explore, use and refine a variety of artistic effects to express their ideas and feelings. ▪ Return to and build on their previous learning, refining ideas and developing their ability to represent them. ▪ Create collaboratively sharing ideas, resources and skills.	▪ 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.

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