



Design Technology Progression of Skills

Updated February 2020

This progression of skills has been designed to show how we will cover all of the relevant DT knowledge and skills across St Johns. The context in which these are taught is left to the discretion of teachers, where possible trying to match the content of their unit to their year group's termly topic.

Year Group	Generating Ideas	Making	Evaluation	Food and Nutrition	Construction	Textiles	Mechanisms
R	Explain what they are making and which materials they are using. Selects materials from a limited range that will meet simple design criteria e.g. shiny. Select and name the tools needed to work the materials e.g. scissors for paper. Describe simple models or drawings of ideas and intentions. Discuss their work as it progresses.	Begin to create their design using basic techniques. Begin to use basic tools such as scissors to cut straight and curved edges and hole punchers to punch holes. Use adhesives to join materials.	Say what they like and do not like about items they have made and attempts to say why. Begin to talk about their designs as they develop and identify good and bad points. Start to talk about changes made during the making process. Discuss how closely their finished products meet their design criteria.	Begin to develop a food vocabulary using taste, smell, feel and texture. Explore familiar food products e.g. fruit and vegetables. Stir, spread, knead and shape a range of food ingredients. Begin to work safely and hygienically. Start to think about the need for a variety of foods in a diet.	Explore ideas by rearranging materials. Start to build structures, joining components together	Begin to use basic tools such as scissors to cut straight and curved edges and hole punchers to punch holes. Use adhesives to join materials.	Look at simple hinges, wheels and axels. Use technical vocabulary when appropriate.
1	Think of own ideas for design. Use pictures and words to plan. Design a product for myself, following design criteria. Work in a range of contexts (imaginary, home, school, wider community, story-based.	Explain what is being made and why. Select appropriate tools and equipment for the purpose.	Talk about own and pre-existing products, saying what is good or bad about them. Say whether their product does what it is meant to (fits the design brief) and how it could be improved.	Know how to peel, cut, grate, mix and mould foods (with close supervision).	Use sheet materials and construction tools with appropriate supervision.		Know about movement of simple mechanism such as levers, sliders, wheels and axels.
2	Think of own ideas and plan what to do next. Describe designs using pictures, diagrams, models, mock-ups, words and ICT. Design a product for myself and others, following design criteria.	Explain what is being made and why the audience will like it. Choose appropriate tools and equipment, describing and explaining why they are being used.	Describe how their own and pre-existing products work, evaluating what went well and what could be done differently. Suggest what went well and what would be done differently when evaluating their own product.	Know how to peel, cut, grate, mix and mould foods (with supervision).	Use sheet materials and construction tools with appropriate supervision.	Cut, then join textiles using a running stitch, over sewing or glue. Decorate using a range of items (buttons, sequins, beads, ribbons etc).	

	Work confidently in a range of contexts (imaginary, home, school, wider community, story-based etc).						
3	Create a design that meets a range of requirements. Consider the equipment and tools needed when planning. Describe a design using an accurately labelled diagram, and in words.	Use a range of tools and equipment accurately. Measure, mark out, assemble and join materials and components with some accuracy.	Evaluate own and pre-existing products. Suggest what could be changed to improve a design, beginning to link this to the design brief.	Know how to peel, cut, grate, mix, mould and begin to cook foods (using toasters and microwaves with supervision).	Use sheet materials and construction tools with appropriate supervision.		Know about movement of simple mechanisms such as levers and linkages.
4	Generate more than one idea for how to create a product. Gather information to help design a successful product (i.e by asking others' views). Produce a detailed plan with labelled diagrams, a written explanation and step-by-step guide. Suggest improvements to develop and refine a planned idea.	Use a range of tools and equipment with accuracy. Measure, mark out, join, assemble materials and components with accuracy.	Evaluate the appearance and usability of own and pre-existing products. Explain how the original design could be improved, considering the appearance and usability and linking this to the design brief.	Know how to peel, cut, grate, mix, mould and begin to cook foods (using toasters and microwaves with supervision).	Use sheet materials and construction tools with appropriate supervision.	Cut, then join textiles using a running stitch, over sewing, back stitch or fastenings. Understand seam, create simple patterns and appropriate decoration techniques (e.g. applique).	
5	Generate a range of ideas after collating relevant information (i.e. users' views). Produce a detailed plan, with step-by-step instructions, cross-sectional diagrams and prototypes. Suggest alternative plans, considering the positive aspects and drawbacks of each.	Use a range of tools and equipment expertly. Consider the aesthetic qualities and functionality of my work when making.	Evaluate the appearance and function of a product (own and pre-existing) against the original criteria, saying whether it is fit for purpose. Suggest improvements that could be made, considering materials and methods that have been used.	Cut, mix, mould and begin to use hobs to heat food with appropriate supervision.	Use sheet and construction materials appropriately.		Understand how mechanical Systems such as cams, pulleys or gears create movement.
6	Use a range of information to inform a design (i.e. market research using surveys, interviews, questionnaires or web-based resources). Produce a detailed plan, with cross-sectional diagrams and computer-generated designs. Work within constraints refining and justifying plans as necessary.	Use a range of tools and equipment precisely. Consider the aesthetic qualities and functionality of my product as making it, refining details as necessary.	Evaluate the appearance and test the function of a product (own and pre-existing) against the original criteria, saying whether it is fit for purpose. Suggest improvements that could be made, considering materials, methods, sustainability of the product and how much a product costs to make.	Cut, mix, mould and use hobs to heat food, developing independence with this as appropriate.	Use sheet and construction materials appropriately.	Pin and tack fabrics, use patterns and seam allowances and join fabrics to make quality products.	