



# Skills Progression for Design and Technology

"You are young, you are precious, you are loved."  
St John Bosco

*OLC learners know it, show it, think it, prove it.*

## Early Years Framework 2025

### ELG: Creating with Materials

Children at the expected level of development will:

- 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.

### Key Stage 1

- When designing and making, pupils should be taught to:
- **Design:**
- design purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
- **Make:**
- select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics
- **Evaluate**
- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria Technical knowledge
- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products
- **Cooking and Nutrition:**
- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

## National Curriculum 2014

### Key Stage 2

- When designing and making, pupils should be taught to:
- **Design**
- 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
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- **Make**
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- 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
- **Evaluate**
- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world Technical knowledge
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.
- **Cooking and Nutrition:**
- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Big idea	Concept/Aspect	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Humankind	Everyday products	AOL: Exp A&D Skill Name and explore a range of everyday products and explore how things work. Covered	AOL: Exp A&D Skill Name and explore a range of everyday products and begin to talk about how they are used. Covered x 3	Skill Name and explore a range of everyday products and describe how they are used. Covered x 3	Skill Explain how an everyday product could be improved. Covered x 3	Skill Explain how an existing product benefits the user. Covered x 6	Skill Investigate and identify the design features of a familiar product. Covered x 6	Skill Explain how the design of a product has been influenced by the culture or society in which it was designed or made. Covered x 6	Skill Analyse how an invention or product has significantly changed or improved people's lives. Covered x 6
	Staying safe	AOL: PSED AOL: PD Skill Show an understanding that tools and equipment need to be used safely and collaborate with others when moving large equipment. Covered	AOL: PSED AOL: PD Skill Follow rules and instructions to keep safe. Covered x 2	Skill Follow the rules to keep safe during a practical task. Covered x 3	Skill Work safely and hygienically in construction and cooking activities. Covered x 3	Skill Use appliances safely with adult supervision. Covered	Skill Work safely with everyday chemical products under supervision, such as disinfectant hand wash and surface cleaning spray. Covered	Skill Explain the functionality and purpose of safety features on a range of products. Covered x 2	Skill Demonstrate how their products take into account the safety of the user. Covered x 2
Processes	Mechanisms and movement	AOL: Exp A&D Skill Explore, build and play with a range of resources and construction kits with wheels. Covered x 2	AOL: Exp A&D Skill Explore, build and play with a range of resources and construction kits with wheels and axles. Covered x 9	Skill Use wheels and axles to make a simple moving model. Covered x 6	Skill Use a range of mechanisms (levers, sliders, wheels and axles) in models or products. Covered x 6	Skill Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. Covered x 7	Skill Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. Covered x 8	Skill Use mechanical systems in their products, such as pneumatics. Covered x 3	Skill Explain and use mechanical systems in their products to meet a design brief. Covered x 3
	Electricity	AOL: Exp A&D Skill Explore battery-powered objects using switches to turn them off and on. Covered	AOL: Exp A&D Skill Identify products that use electricity to make them work. Covered	Skill Identify products that use electricity to make them work and describe how to switch them on and off. Covered x 6	Skill Create an operational, simple series circuit. Covered x 6	Skill Incorporate a simple series circuit into a model. Covered x 2	Skill Incorporate circuits that use a variety of components into models or products. Covered x 3	Skill Use electrical circuits of increasing complexity in their models or products, showing an understanding of control. Covered x 2	Skill Understand and use electrical circuits that incorporate a variety of components (switches, lamps, buzzers and motors) and use programming to control their products. Covered x 2
Creativity	Generation of ideas	AOL: Exp A&D Skill Develop their own ideas and explore a variety of resources, including blocks and construction kits to create 'small worlds' and objects linked to their interests. Covered x 2	AOL: Exp A&D Skill Create collaboratively, share ideas and use a variety of resources to make products inspired by existing products, stories or their own ideas, interests or experiences. Covered x 30	Skill Create a design to meet simple design criteria. Covered x 6	Skill Generate and communicate their ideas through a range of different methods. Covered x 6	Skill Develop design criteria to inform a design. Covered x 9	Skill Use annotated sketches and exploded diagrams to test and communicate their ideas. Covered x 9	Skill Use pattern pieces and computer-aided design packages to design a product. Covered x 3	Skill Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. Covered x 3
	Structures	AOL: Exp A&D Skill Make simple structures using a range of materials. Covered	AOL: Exp A&D Skill Construct simple structures and models using a range of materials. Covered	Skill Construct simple structures, models or other products using a range of materials. Covered	Skill Explore how a structure can be made stronger, stiffer and more stable. Covered	Skill Create shell or frame structures using diagonal struts to strengthen them. Covered	Skill Prototype shell and frame structures, showing awareness of how to strengthen, stiffen and reinforce them. Covered	Skill Build a framework using a range of materials to support mechanisms. Covered	Skill Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. Covered

	<b>Use of ICT</b>	Seek support from adults to use digital devices to create a digital record of their creations. <b>Covered</b>	Use digital devices to take digital images or recordings of their creations to share with others. <b>Covered</b>	Use design software to create a simple plan for a design. <b>Covered</b>	Use design software to create a simple labelled design or plan. <b>Covered</b>	Write a program to make something move on a tablet or computer screen. <b>Covered</b>	Write a program to control a physical device, such as a light, speaker or buzzer. <b>Covered x 3</b>	Link a physical device to a computer or tablet so that it can be controlled (such as changing motor speed or turning an LED on and off) by a program. <b>Covered x 2</b>	Use a sensor to monitor an environmental variable, such as temperature, sound or light. <b>Covered x 2</b>
<b>Investigation</b>	<b>Investigation</b>	<b>AOL: PD</b> <b>Skill</b> Explore simple tools within practical tasks and experiment with joining materials. <b>Covered</b>	<b>AOL: PD</b> <b>Skill</b> Choose and explore appropriate tools for simple practical tasks. <b>Covered x 11</b>	<b>Skill</b> Select the appropriate tool for a simple practical task. <b>Covered x 4</b>	<b>Skill</b> Select the appropriate tool for a task and explain their choice. <b>Covered x 4</b>	<b>Skill</b> Use tools safely for cutting and joining materials and components. <b>Covered x 7</b>	<b>Skill</b> Select, name and use tools with adult supervision. <b>Covered x 7</b>	<b>Skill</b> Name and select increasingly appropriate tools for a task and use them safely. <b>Covered x 3</b>	<b>Skill</b> Select appropriate tools for a task and use them safely and precisely. <b>Covered x 3</b>
	<b>Evaluation</b>	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Share their creations with others and respond to questions and suggestions about how it was made. <b>Covered</b>	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Adapt and refine their work as they are constructing and making. <b>Covered x 6</b>	<b>Skill</b> Talk about their own and each other's work, identifying strengths or weaknesses and offering support. <b>Covered x 6</b>	<b>Skill</b> Explain how closely their finished products meet their design criteria and say what they could do better in the future. <b>Covered x 6</b>	<b>Skill</b> Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. <b>Covered x 8</b>	<b>Skill</b> Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. <b>Covered x 8</b>	<b>Skill</b> Test and evaluate products against a detailed design specification and make adaptations as they develop the product. <b>Covered x 6</b>	<b>Skill</b> Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. <b>Covered x 6</b>
<b>Materials</b>	<b>Cutting and joining textiles</b>			<b>Skill</b> Cut and join textiles using glue and simple stitches. <b>Covered x 6</b>	<b>Skill</b> Use different methods of joining fabrics, including glue and running stitch. <b>Covered x 6</b>	<b>Skill</b> Cut and join wools, threads and other materials to a loom. <b>Covered x 9</b>	<b>Skill</b> Hand sew a hem or seam using a running stitch. <b>Covered x 9</b>	<b>Skill</b> Combine stitches and fabrics with imagination to create a mixed media collage. <b>Covered x 6</b>	<b>Skill</b> Pin and tack fabrics in preparation for sewing and more complex pattern work. <b>Covered x 6</b>
	<b>Materials for purpose</b>	Explore and choose freely from a variety of materials when making.	Select appropriate materials when constructing and making. <b>Covered x 6</b>	Select and use a range of materials, beginning to explain their choices. <b>Covered x 6</b>	Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. <b>Covered x 6</b>	Plan which materials will be needed for a task and explain why. <b>Covered x 9</b>	Choose from a range of materials, showing an understanding of their different characteristics. <b>Covered x 9</b>	Select and combine materials with precision. <b>Covered x 6</b>	Choose the best materials for a task, showing an understanding of their working characteristics. <b>Covered x 6</b>

Big idea	Concept/Aspect	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Decorating and embellishing textiles			<b>Skill</b> Use gluing, stapling or tying to decorate fabric, including buttons and sequins.  <b>Covered x 3</b>	<b>Skill</b> Add simple decorative embellishments, such as buttons, prints, sequins and appliqué.  <b>Covered x 3</b>	<b>Skill</b> Decorate a loom weaving using embellishments, such as natural or silk flowers, tassels and bows.  <b>Covered x 2</b>	<b>Skill</b> Create detailed decorative patterns on fabric using printing techniques.  <b>Covered x 2</b>	<b>Skill</b> Use applique to add decoration to a product or artwork.  <b>Covered</b>	<b>Skill</b> Use different methods of fastening for function and decoration, including press studs, Velcro and buttons.  <b>Covered</b>
Nature	Food preparation and cooking	<b>AOL: Maths</b> <b>Skill</b> Explore measuring ingredients using cups and spoons.  <b>Covered</b>	<b>AOL: Maths</b> <b>Skill</b> Follow instructions, including simple recipes, that include measures and ingredients.  <b>Covered x 8</b>	<b>Skill</b> Measure and weigh food items using non-standard measures, such as spoons and cups.  <b>Covered x 3</b>	<b>Skill</b> Prepare ingredients by peeling, grating, chopping and slicing.  <b>Covered x 3</b>	<b>Skill</b> Prepare and cook a simple savoury dish.  <b>Covered x 3</b>	<b>Skill</b> Identify and use a range of cooking techniques to prepare a simple meal or snack.  <b>Covered x 3</b>	<b>Skill</b> Use an increasing range of preparation and cooking techniques to cook a sweet or savoury dish.  <b>Covered x 5</b>	<b>Skill</b> Follow a recipe that requires a variety of techniques and source the necessary ingredients independently.  <b>Covered x 5</b>
	Nutrition	<b>AOL: PSED</b> <b>Skill</b> Help to prepare a range of healthy snacks.  <b>Covered</b>	<b>AOL: PSED</b> <b>Skill</b> Suggest healthy ingredients that can be used to make simple snacks.  <b>Covered x 3</b>	<b>Skill</b> Select healthy ingredients for a fruit or vegetable salad.  <b>Covered x 2</b>	<b>Skill</b> Describe the types of food needed for a healthy and varied diet and apply the principles to make a simple, healthy meal.  <b>Covered x 2</b>	<b>Skill</b> Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars).  <b>Covered</b>	<b>Skill</b> Design a healthy snack or packed lunch and explain why it is healthy.  <b>Covered</b>	<b>Skill</b> Evaluate meals and consider if they contribute towards a balanced diet.  <b>Covered x 4</b>	<b>Skill</b> Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet.  <b>Covered x 4</b>
	Origins of food	<b>AOL: World</b> <b>Skill</b> Explore and try a range of foods and suggest where they come from.  <b>Covered</b>	<b>AOL: World</b> <b>Skill</b> Begin to identify the origins of some foods.  <b>Covered</b>	<b>Skill</b> Sort foods into groups by whether they are from an animal or plant source.  <b>Covered x 2</b>	<b>Skill</b> Identify the origin of some common foods (milk, eggs, some meats, common fruit and vegetables).  <b>Covered x 2</b>	<b>Skill</b> Identify and name foods that are produced in different places.  <b>Covered</b>	<b>Skill</b> Identify and name foods that are produced in different places in the UK and beyond.  <b>Covered</b>	<b>Skill</b> Describe what seasonality means and explain some of the reasons why it is beneficial.  <b>Covered x 2</b>	<b>Skill</b> Explain how organic produce is grown.  <b>Covered x 2</b>
Comparison	Compare and contrast	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Share their creations with others and begin to notice how the work of others is the same or different to their own.  <b>Covered</b>	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Describe what, why and how something was made and compare with others.  <b>Covered x 4</b>	<b>Skill</b> Describe the similarities and differences between two products.  <b>Covered x 2</b>	<b>Skill</b> Compare different or the same products from the same or different brands.  <b>Covered x 2</b>	<b>Skill</b> Explain the similarities and difference between the work of two designers.  <b>Covered x 5</b>	<b>Skill</b> Create and complete a comparison table to compare two or more products.  <b>Covered x 5</b>	<b>Skill</b> Survey users in a range of focus groups and compare results.  <b>Covered x 5</b>	<b>Skill</b> Create a detailed comparative report about two or more products or inventions.  <b>Covered x 5</b>
Significance	Significant people	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Begin to talk about important products.  <b>Covered</b>	<b>AOL: Exp A&amp;D</b> <b>Skill</b> Explore significant products.  <b>Covered x 2</b>	<b>Skill</b> Describe why a product is important.  <b>Covered</b>	<b>Skill</b> Explain why a designer or inventor is important.  <b>Covered</b>	<b>Skill</b> Describe how key events in design and technology have shaped the world.  <b>Covered x 3</b>	<b>Skill</b> Explain how and why a significant designer or inventor shaped the world.  <b>Covered x 3</b>	<b>Skill</b> Describe the social influence of a significant designer or inventor.  <b>Covered x 2</b>	<b>Skill</b> Present a detailed account of the significance of a favourite designer or inventor.  <b>Covered x 2</b>