Progression of skills

Design Technology

Our Lady and Saint Edwards Catholic Primary School



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| **EYFS** | | | |
| The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. The aim of this section of the progression document is to help the whole school to understand how the skills taught across EYFS feed into national curriculum subjects.  The table below outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework (2021) and the Development Matters (2020) age ranges for Three and Four-Year-Olds and Reception to match the programme of study for DT  The most relevant statements for DT are taken from the following areas of learning:   * Physical Development * Expressive Arts and Design | | | |
| **Development Matters**  3 and 4 Year Olds | Personal, Social and Emotional Development | | Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. |
| Physical Development | | * Use large-muscle movements to wave flags and streamers, paint and make marks. * Choose the right resources to carry out their own plan. * Use one-handed tools and equipment, for example, making snips in paper with scissors. |
| Understanding the World | | * Explore how things work. |
| Expressive Arts and Design | | * Make imaginative and complex ‘small worlds’ with blocks and construction kits, such as a city with different buildings and a park. * Explore different materials freely, in order to develop their ideas about how to use them and what to make. * Develop their own ideas and then decide which materials to use to express them. * Create closed shapes with continuous lines, and begin to use these shapes to represent objects. |
| **Development Matters**  Reception | Physical Development | | * Progress towards a more fluent style of moving, with developing control and grace. * Develop their small motor skills so that they can use a range of tools competently, safely and confidently. * Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. |
| Expressive Arts and 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. |
| **ELG** | Physical Development | Fine Motor Skills | * Use a range of small tools, including scissors, paintbrushes and cutlery. |
| Expressive Arts and Design | Creating with Materials | * 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. |

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|  | **Design** | **Make** | **Evaluate** | **Technical Knowledge** | **Cooking and Nutrition** |
| **Year 1** | **Use** pictures and words to convey what they want to design / make.  **Explore** ideas by rearranging materials.  **Select** pictures to help develop ideas.  **Use** mock-ups e.g. recycled material trial models to try out  their ideas. | **Select** materials from a limited range.  **Explain** what they are making.  **Name** the tools they are using. | **Explore** existing products and  investigate how they have been made (including teacher-made examples).  **Talk** about their design as they develop and identify good and bad  points.  **Say** what they like and do not like about items they have made and  attempt to say why. | **Start** to use technical vocabulary.  **Cut** out shapes which have been created by drawing round a template.  **Join** materials in a variety of ways.  **Decorate** using a variety of techniques.  **Know** some ways of making structures stronger.  **Show** how to stiffen some materials.  **Know** how to make a simple structure more stable.  **Attach** wheels to a chassis using an axle.  **Know** some different ways of making things move in a 2-D plane | **Group** familiar food products e.g. fruit and vegetables.  **Cut** and chop a range of  ingredients.  **Work** safely and hygienically.  **Know** about the need for a variety of foods in a diet. |
| **Year 2** | **Propose** more than one idea for their product.  **Use** ICT to communicate ideas.  **Use** drawings to record ideas as they are developed.  **Add** notes to drawings to help explanations | **Discuss** their work as it  progresses.  **Select** and name the tools needed to work the materials.  **Explain** which materials they are using and why. | **Decide** how existing products do / do  not achieve their purpose.  **Discuss** how closely their finished product meets their own design  criteria. | **Cut**, peel, grate, chop a range of ingredients.  **Work** safely and hygienically.  **Know** about the Eatwell Plate.  **Understand** where food  comes from. |
| **Year 3** | **Develop** more than one design or adaptation of an initial design.  **Plan** a sequence of actions to make a product.  **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. | **Select** from a range of tools for cutting, shaping, joining and finishing.  **Use** tools with accuracy.  **Select** from materials  according to their functional properties.  **Use** appropriate finishing  techniques. | **Investigate** similar products to the one to be made to give starting  points for a design.  **Research** needs of user.  **Decide** which design idea to develop.  **Consider** and explain how the finished product could be improved.  **Discuss** how well the finished product meets the user’s design criteria.  **Investigate** key events and individuals in design and technology. | **Use** an increasingly appropriate technical vocabulary for tools  materials and their properties.  **Understand** seam allowance.  **Prototype** a product.  **Sew** on buttons and make loops.  **Strengthen** frames with diagonal struts.  **Measure** and mark square section, strip and dowel accurately to 1cm.  Incorporate a circuit into a model.  **Use** electrical systems such as switches bulbs and buzzers.  **Use** ICT to control products.  **Use** linkages to make movement larger or more varied. | **Follow** instructions / recipes.  **Join** and combine a range of ingredients.  **Begin** to understand the food groups on the Eatwell Plate. |
| **Year 4** | **Record** the plan by drawing using annotated sketches.  **Use** prototypes to develop and share ideas.  **Consider** aesthetic qualities of materials chosen.  **Use** CAD where appropriate. | **Prepare** pattern pieces as  templates for their design.  **Select** from techniques for different parts of the process. | **Draw** / sketch existing products in order to analyse and understand how products are made.  **Identify** the strengths and weaknesses of their design ideas in relation to purpose / user.  **Consider** and explain how the finished product could be improved.  **Investigate** key events and individuals in design and technology. | **Use** an increasingly appropriate technical vocabulary for tools  materials and their properties.  **Understand** seam allowance.  **Prototype** a product.  Sew on buttons and make loops.  **Strengthen** frames with diagonal struts.  **Measure** and mark square section, strip and dowel accurately to 1cm.  Incorporate a circuit into a model.  **Use** electrical systems such as switches bulbs and buzzers.  **Use** ICT to control products.  **Use** linkages to make movement larger or more varied. | **Make** healthy eating choices – use the Eatwell plate.  **Understand** seasonality.  Know where and how  ingredients are reared and caught.  **Prepare** and cook using  different cooking techniques. |
| **Year 5** | **Record** ideas using annotated diagrams.  **Use** models, kits and drawings to help formulate design ideas.  **Sketch** and model alternative ideas.  **Decide** which design idea to develop. | **Develop** one idea in depth.  **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. | **Research** and evaluate existing products.  Consider user and purpose.  **Consider** and explain how the finished product could be improved  related to design criteria.  **Investigate** key events and individuals in design and technology. | **Use** the correct vocabulary appropriate to the project.  **Join** materials using appropriate methods.  **Create** 3=-D textile products using pattern pieces.  **Understand** pattern layout with textiles.  **Cut** strip wood, dowel, square section wood accurately to 1mm.  **Build** frameworks to support mechanisms.  Stiffen and reinforce complex structures.  **Use** mechanical systems such as cams, pulleys and gears.  **Use** electrical systems such as motors and switches.  **Program**, monitor and control using ICT. | **Join** and combine a widening range of ingredients.  **Select** and prepare foods  for a particular purpose.  **Know** where and how  ingredients are grown and processed. |
| **Year 6** | **Plan** the sequence of work.  **Devise** step by step plans which can be read / followed by someone else.  **Use** exploded diagrams and cross-sectional diagrams to communicate ideas. | **Make** prototypes.  **Use** researched information to inform decisions.  **Produce** detailed lists of  ingredients / components /materials and tools.  **Refine** their product – review and rework / improve. | **Identify** the strengths and weaknesses of their design ideas.  **Report** using correct technical vocabulary. **Discuss** how well the finished product meets the design criteria having  tested on/discussed outcomes with the user.  **Understand** how key people have influenced design in a variety of  contexts.  **Investigate** key events and individuals in design and technology. | **Understand** and apply the principles of a healthy and varied diet.  **Choose** ingredients to  support healthy eating  choices when designing their food products.  **Prepare** and cook a variety of mostly savoury dishes using a range of cooking techniques. |