



Design and Technology Whole School Progression Map

Preschool – Aspects of Physical development and Expressive Arts and Design relevant to Design and Technology – Three and four year olds

Expressive Arts and Design

- Take part in simple pretend play, using an object to represent something else even though they are not similar.
- Begin to develop complex stories using small world equipment like animal sets, dolls and dolls houses, etc.
- 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, 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.
- Join different materials and explore different textures.
- Create closed shapes with continuous lines, and begin to use these shapes to represent objects.
- Draw with increasing complexity and detail, such as representing a face with a circle and including details.
- Use drawing to represent ideas like movement or loud noises.
- Show different emotions in their drawings and paintings, like happiness, sadness, fear, etc.
- Explore colour and colour-mixing.

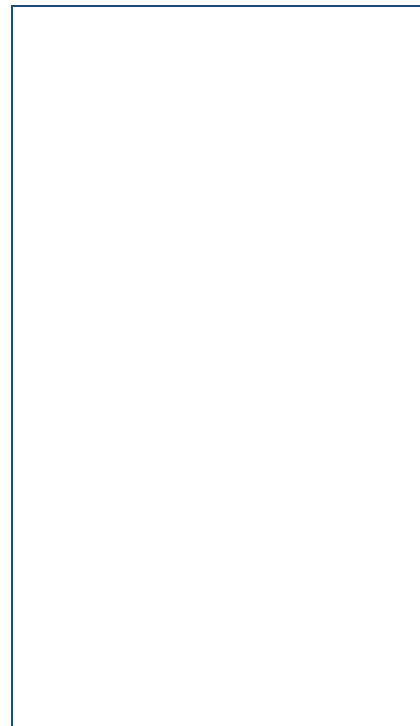
Physical Development

- Match their developing physical skills to tasks and activities in the setting. For example, they decide whether to crawl, walk or run across a plank, depending on its length and width.
- Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel.
- Collaborate with others to manage large items, such as moving a long plank safely, carrying large hollow blocks.
- Use one-handed tools and equipment, for example, making snips in paper with scissors.
- Use a comfortable grip with good control when holding pens and pencils.
- Show a preference for a dominant hand.

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	Plan a model with a simple drawing	Can design their own product thinking about how it will work. Can generate a simple plan communicating their ideas through talking and drawing.	Can design their own product based on a design criteria Can generate a plan of their design communicating their ideas through talking, drawing, mock-ups	Can, with growing confidence generate ideas, considering its purpose and users. Can begin to understand how well products have been designed, made, what materials have been used and the	Can start to generate ideas, considering the purposes for which they are designing Can confidently make labelled drawings from different views	Can start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces.	Can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes or pattern pieces.



St Jude's Catholic Primary School



Make

	<p>Can begin to use knowledge of existing products</p>	<p>and ICT (where appropriate).</p> <p>Can use knowledge of existing products to help come up with ideas, such as story books with moving parts, variety of puppets, selection of vehicles.</p> <p>Can model ideas by making templates and mock ups of design</p>	<p>construction technique.</p> <p>Can model ideas by making templates and mock ups of design</p> <p>Can make drawings with labels when designing.</p>	<p>showing specific features.</p> <p>Can understand how well products have been designed, made, what materials have been used and the construction technique.</p>	<p>Can begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p> <p>Know how to use information sources, including ICT when developing design ideas.</p>	<p>Can use research (including ICT) to develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose.</p>
<p>Make a model using basic equipment and joining methods</p>	<p>Begin to make their design using scissors, zester, juicer and knife as appropriate</p> <p>With help measure, mark out, cut and shape a range of materials, such as card, paper, felt and other fabric.</p> <p>Begin to assemble, join and combine materials and components together using a variety of temporary methods, such as glue, tape, split pins, needle and thread.</p>	<p>Can select tools such as scissors, a hole punch, a stapler, a needle, knives or graters and use correct vocabulary to name and describe them.</p> <p>Can cut and score with some accuracy and use hand tools such as scissor a stapler, a needle, knives or graters, safely and appropriately. (Pizzas, Puppets and vehicles)</p> <p>Can select and use a wide range of materials such as card, paper, felt, fabric and other art materials for decoration (sequins,</p>	<p>Can begin to select a wider range of tools such as scissors, knives,</p> <p>Can select the most appropriate tools and techniques to use.</p> <p>Can measure mark out, cut, score and assemble components with more accuracy.</p> <p>Can start to measure, tape or pin, cut and join fabric, including felt with some accuracy.</p>	<p>Can select a wider range of tools such as scissors, paper clips and techniques such as sewing, making an electrical circuit for making their product safely.</p> <p>Can measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques.</p>	<p>Can select and use appropriate materials e.g. fabric, cardboard, straws, lollipop sticks and tools, e.g. scissors, rulers to measure accurately, according to their functional properties and aesthetic qualities</p> <p>Can select and use a wider range of techniques, e.g. cutting, shaping, joining and finishing</p> <p>Can begin to measure and mark out materials more accurately</p> <p>Can pin, sew and stitch materials together to create a product.</p>	<p>Can confidently select and use appropriate materials e.g. paper, card, straws, wood, wires, batteries, buzzers and tools e.g. scissors, rulers to measure accurately, according to their functional properties and aesthetic qualities.</p> <p>Can select use a wider range of techniques, e.g. cutting, shaping, joining and finishing.</p> <p>Can pin, sew and stitch materials together to create a product.</p>



Evaluate

Talk about what they like about their model
How can we make it better?

Can start to evaluate their product by discussing how well it works in relation to the purpose (design criteria), and identify strengths and possible changes they might make.

When looking at existing products (salads, Christmas stockings, boats and rockets) and begin to explain what they like and dislike about them and why.

buttons, ribbon) and ingredients in different ways.

Can start to assemble, join and combine materials in a variety of ways e.g. glue, tape, split pins, needle and thread.

Can evaluate their work against their design criteria, and identify strengths and possible changes they might make.

Can look at a range of existing products, (story books with moving parts, variety of puppets, selection of fruit and vegetables) and explain what they like and dislike about them and why.

Can start to evaluate their product against original design criteria e.g. how well it meets its intended purpose.

Begin to evaluate familiar products and consider the views of others to improve them.

Can start to evaluate their work both during and at the end of the process.

Be able to evaluate familiar products and consider the views of others to improve them.

product.

Can start to evaluate a product against the original design specification and by carrying out tests.

Can evaluate their work both during and at the end of the process and consider the views of others to improve their work.

Can evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests.

Can evaluate their work both during and at the end of the process and consider the views of others to improve their work.

Can suggest ways that their product could be improved and consider the views of others to improve their work.

Can evaluate the designs of individuals in design and how technology has helped shape the world.

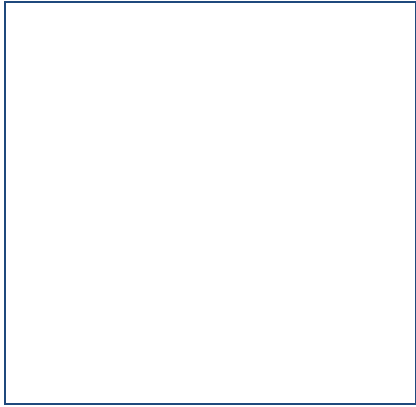


St Jude's Catholic Primary School

<p>Technical Knowledge</p>	<p>Vocabulary</p>	<p>Can begin to build structures, exploring how they can be made stronger.</p> <p>Can explore and use mechanisms such as levers and sliders in their products. Can make a product which moves.</p> <p>Safety using equipment such as needles, knives, scissors etc.</p> <p>Use sliders and levers.</p>	<p>Can build structures, exploring how they can be made stronger, stiffer and more stable.</p> <p>Can make a product move using simple mechanisms such as slider, axels.</p> <p>Can make a product which moves.</p> <p>Safety using equipment such as needles, knives, scissors etc.</p> <p>Create a piece of work using wheels and axels.</p>	<p>Can make a product move using simple mechanisms such as sliders, pneumatics. (Moving Iron Man)</p> <p>Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</p> <p>Safety of using equipment.</p> <p>Create a piece of work using pneumatics.</p>	<p>Can understand and use electrical systems in their products.</p> <p>Can use finishing techniques to strengthen and improve the appearance of their product using a range of equipment including ICT.</p> <p>Can strengthen structures to ensure it is fit for purpose.</p> <p>Safety of using equipment and safe use of electricity.</p> <p>Create a piece of work using Levers and linkages.</p>	<p>Can apply their understanding of how to strengthen, stiffen and reinforce more complex structures e.g. bridges.</p> <p>Use pulleys or gears or cams in a piece of work.</p>	<p>Can use more complex electrical systems in their product</p> <p>Know how to program a computer to control their product.</p> <p>To understand safety of using equipment and safe use of electricity.</p>
<p>Cooking and Nutrition</p>	<p>Can begin to understand the basics of healthy food.</p>	<p>Can begin to understand that all food comes from plants or animals and has to be farmed, grown somewhere else (e.g. home) or caught.</p> <p>To know how to prepare simple dishes safely and hygienically.</p> <p>To know how to use techniques such as cutting, peeling and grating.</p>	<p>Can understand that all food comes from plants or animals and has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Can demonstrate how to prepare simple dishes safely and hygienically, without using heat source.</p> <p>Can demonstrate how to use techniques such as cutting, peeling and grating.</p>	<p>Can understand that all food comes from plants or animals and has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>Can demonstrate how to prepare simple dishes safely and hygienically, without using heat source.</p> <p>Can demonstrate how to use techniques such as cutting, peeling and grating.</p>	<p>Can understand that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Understand that seasons may affect the food available</p> <p>Can prepare and cook a variety of predominantly savoury dishes safely and hygienically using a range of techniques.</p> <p>Can understand and apply the principles of</p>	<p>Can understand that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Understand that seasons may affect the food available</p> <p>Can prepare and cook a variety of predominantly savoury dishes safely and hygienically using a range of techniques.</p>	<p>Can understand that food is grown, reared and caught in the UK, Europe and the wider world.</p> <p>Know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically.</p>



St Jude's Catholic Primary School



a healthy and varied diet.

Can understand and apply the principles of a healthy and varied diet