

Children in Reception will be learning to:	Examples of how we support this:	Key Vocabulary:
Make healthy choices about food and drink.	<b>Role play</b> – Shop (what foods should we buy?) <b>Discussions</b> – What food would we give our friends and family?	food, drink, healthy
Use a range of small tools competently and confidently.	<b>Provision based</b> – scissors, paint brushes and pencils in the environment. Teachers to observe and model correct use when necessary.	pencil, paint brush, scissors, knife
Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	<b>Provision based</b> – puzzles and larger construction. Manipulating different objects supported by peers and teachers. Will model correct use when necessary. <b>Maths</b> – Recognising shapes and their properties. Identifying these in the environment as well as in pictures. Can the children make their own picture using just shapes? We have do this with cut up shapes as well as stamping.	triangle, square, circle, rectangle
Explore use and refine a variety of artistic effects to express their ideas and feelings.	<b>Provision based</b> – Number of materials in the environment to allow children to experiment. Often including chalk boards, painting, stamping, drawing, whiteboards and junk modelling.	draw, paint, make
Return to and build on their previous learning, refining ideas and developing their ability to represent them.	Opportunities with the provision are offered several times across a time period. Children often revisit areas they have engaged with. This means they are practising and refining skill.	change, improve, design
Create collaboratively, sharing ideas, resources and skills.	<b>Directed activities</b> – We provide the opportunities when doing directed activities to ask children to work in pairs or in groups. Children will need to share ideas and resources, take turns and communicate effectively.	share, taking turns, talking, partner
Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	<b>Provision based</b> – Number of materials in the environment to allow children to experiment. Often including chalk boards, painting, stamping, drawing, whiteboards and junk modelling.	materials, paper, card, cardboard
Share their creations, explaining the process they have used.	<b>Directed activities</b> – We provide the opportunities when doing directed activities to ask children what they are making, how they are making it and discuss their work with both peers and teachers. Work from both directed activities and provision is often displayed in the classroom for the children to access and discuss.	like, dislike, how, because

Term	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Autumn Units &amp; Key Vocabulary</b>	<b>Houses for 3 Little Pigs</b> Design, make, plan, tools, ideas	<b>Finger Puppets</b> Product, materials, “existing products”, modelling, components, 3D, textiles, assemble, fabric, improve, prototype	<b>Articulated Puppets</b> Information, wants, needs, describe, purpose, “intended user”, stages/steps, assemble, join, components, accuracy, art, design, criteria, evaluate	<b>Electric Pictures</b> Electrical circuits, strengths, “areas for development”, products, “design criteria”, materials, combined, mixed, useful, characteristics, structures, evaluate	<b>Healthy Heart Food</b> Seasons, food, available, recipes, adapted, appearance, texture, taste, aroma, adding, substitute, ingredients	<b>Electrical Christmas Decorations</b> Complex, electrical, circuits, functioning, resourcefulness, reinforce, strengthen, 3D framework, materials, components
<b>Autumn Core Concepts</b>	<ul style="list-style-type: none"> <li>•Stating what they make, what it is for.</li> <li>•Communicate ideas by talking and drawing.</li> <li>•Use simple design criteria to develop ideas.</li> <li>•Plan by suggesting what to do next.</li> <li>•Select tools and explain choices.</li> </ul>	<ul style="list-style-type: none"> <li>•Explore: who products are for, what materials they are made from, how they work, where they might be used</li> <li>•Using knowledge of existing products.</li> <li>•Modelling ideas and exploring materials and components.</li> <li>•That a 3D textiles product can be assembled from 2 identical fabric shapes</li> <li>•Suggest how their products can be improved.</li> </ul>	<ul style="list-style-type: none"> <li>•Gathering information about wants and needs.</li> <li>•Describe the purpose of their products and the intended user.</li> <li>•Order the main stages of making.</li> <li>•Assemble and join components with some accuracy. Use a range of finishing techniques from art and design.</li> </ul>	<ul style="list-style-type: none"> <li>Make simple electrical circuits.</li> <li>•Identify strengths and areas for development in their ideas and products.</li> <li>•Refer to design criteria as they design and make.</li> <li>•Know that materials can be combined and mixed to create more useful characteristics.</li> <li>•Make strong, stiff, shell structures.</li> </ul>	<ul style="list-style-type: none"> <li>•Know that seasons may affect the food available.</li> <li>•Know that recipes can be adapted to change the appearance, texture, taste and aroma.</li> <li>•Know that recipes can be adapted by adding or substituting one or more ingredients.</li> </ul>	<ul style="list-style-type: none"> <li>•How more complex electrical circuits can be used to make functioning products.</li> <li>•Demonstrate resourcefulness when tackling practical problems.</li> <li>•How to reinforce and strengthen a 3D framework.</li> <li>•Use wider range of materials and components, e.g. textiles, food, mechanical, electrical</li> <li>•Explain how particular parts of their products work.</li> </ul>

			•Use their design criteria to evaluate their completed products.			
<b>Spring Units &amp; Key Vocabulary</b>	<b>Fruit Salad</b> Safe, hygienic, design, ideas, product, food, plants, animals, fruit, vegetables, meat, dairy, sugar, prepare, healthy	<b>Sandwiches</b> Food, farmed, grown, caught, fruit, vegetables, bread, protein, dairy, oil, ingredients, taste	<b>Moving Pictures</b> Mechanical systems, pulleys, design, components, suitable, tools, materials, techniques, strengths, develop, functional, aesthetic, qualities	<b>Pencil Case</b> Develop, “design criteria”, inform, features, appeal, “intended users” “functional properties”, “aesthetic qualities”, purpose, recycle, fabric, 3D	<b>Cams</b> Accuracy, skills, techniques, “intended users”, improve, evaluate, manufacture, “fitness for purpose”, mechanical systems, electrical systems, input, process, output, cams	<b>Local Foods</b> Processed, ingredients, substances, nutrients, water, fibre, health
<b>Spring Core Concepts</b>	<ul style="list-style-type: none"> <li>•Be safe and hygienic.</li> <li>•Talk about design ideas and what they are making.</li> <li>•Make simple judgements about their product.</li> <li>•Explore: what products are, what they are for</li> <li>•Know that food comes from plants or animals.</li> <li>•How to prepare simple dishes safely and hygienically (no heat).</li> <li>•Know that everyone should eat at least 5 portions of fruit or vegetables a day.</li> </ul>	<ul style="list-style-type: none"> <li>•Know that food has to be farmed, grown elsewhere or caught.</li> <li>•Name and sort foods into the 5 groups of the “Eatwell Plate”</li> <li>•Know that food ingredients should be combined according to sensory characteristics.</li> </ul>	<ul style="list-style-type: none"> <li>•Mechanical systems such as levers, linkages or pneumatic systems.</li> <li>•Explore: how products are designed, made, what materials and components are used, how well they work</li> <li>•Select suitable tools and materials and explain in relation to techniques.</li> <li>•Identify strengths and areas for development in their products.</li> <li>•Know that they can use learning from science and maths to help design and make products that work.</li> <li>•Know that products have both functional and aesthetic qualities.</li> </ul>	<ul style="list-style-type: none"> <li>•Developing their own design criteria and using them to inform their ideas.</li> <li>•Indicate design features that will appeal to intended users.</li> <li>•Explain choices of materials according to functional properties and aesthetic qualities.</li> <li>•Explore: who/where/when designed a product, how well does it achieve its purpose, can it be recycled?</li> <li>•Know that a single fabric shape can be used to make a 3D product.</li> </ul>	<ul style="list-style-type: none"> <li>•Improved accuracy with learnt skills.</li> <li>•Use techniques that involve a number of steps.</li> <li>•Consider the views of others, including intended users, to improve their work.</li> <li>•Evaluate the manufacture and fitness for purpose of their products as they design and make.</li> <li>•Know that mechanical and electrical systems have an input, process and output.</li> <li>•Mechanical systems such as cams, pulleys or gears.</li> </ul>	<ul style="list-style-type: none"> <li>•Know how food is processed into ingredients that can be eaten or used in cooking.</li> <li>•Know that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</li> </ul>
<b>Summer Units &amp; Key Vocabulary</b>	<b>Animals</b> Measure, mark out, cut, combine, characteristics, materials, structure, stronger, stable	<b>Moving Vehicles</b> Tools, materials, finishing, art, techniques, products, suitable, design, criteria, mechanisms, levers, wheels, axels	<b>Making Salad</b> Grown, reared, caught, prepare, cook, savoury, safely, hygienically, healthy, diet, balance, Eatwell plate, fruit, vegetables, bread, starch, carbohydrates, protein, dairy, oil, ingredients	<b>Soup</b> Ingredients, fresh, pre-cooked, processed, grown, reared, caught, UK, Europe, wider world, prepare, cook, savoury, safely, hygienically, “heat source”, energy	<b>Bird Feeders</b> Materials, components, research, surveys, interviews, web-based resources, contexts, leisure, industry, cost to make, sustainable	<b>Making Bags</b> Needs, wants, preferences, values, “Target market”, 3D, textiles, product, combine
<b>Summer Core Concepts</b>	<ul style="list-style-type: none"> <li>•Measure, mark out, cut and combine.</li> <li>•Know about simple working characteristics of materials and components.</li> <li>•How free-stranding structures can be made stronger and more stable</li> </ul>	<ul style="list-style-type: none"> <li>•Say how their products will work and how they will make them suitable for users.</li> <li>•Movement of simple mechanisms, e.g. levers, wheels, axels</li> <li>•Select from a range of tools and materials and explain choices.</li> <li>•Finish using art techniques.</li> <li>•Make simple judgements about their product using design criteria.</li> </ul>	<ul style="list-style-type: none"> <li>•Know that food is grown, reared and caught.</li> <li>•Prepare and cook savoury dishes safely and hygienically.</li> <li>•Know that a healthy diet is made up of a balance of different food and drink (Eatwell plate)</li> </ul>	<ul style="list-style-type: none"> <li>•Understand that food ingredients can be fresh, pre-cooked and processed.</li> <li>•Know that food is grown, reared and caught in the UK, Europe and the wider world.</li> <li>•Prepare and cook savoury dishes safely and hygienically, including with a heat source.</li> <li>•That being active, food and drink are needed to provide energy for the body.</li> </ul>	<ul style="list-style-type: none"> <li>•Use wider range of materials and components, e.g. textiles, food, mechanical, electrical</li> <li>•Carrying out research using surveys, interviews, web-based resources, etc.</li> <li>•Work confidently in a range of contexts, e.g. home, school, leisure, industry, wider environment.</li> <li>•Explore: how much products cost to make, how sustainable the materials are</li> </ul>	<ul style="list-style-type: none"> <li>•Identifying the needs, wants, preferences and values of particular individuals and groups.</li> <li>•Know that a 3D textiles product can be made from a combination of fabric shapes.</li> </ul>

### INTENT/WHY?

At St Mary's D&T encourages children to experiment, problem solve and improve. Design and Technology learning should create a journey through designing, planning, making and evaluating. The children will explore the different people and purposes they can design for and learn to conduct research into people's wants and needs.

Children should build essential technical skills and understanding by working on a range of techniques and systems such as sewing, cutting, circuits and levers. This gives them an understanding of how the machines and inventions around them work.

It is vital that during their Design and Technology education that children are given the opportunity to explore the impact of their product by looking at sustainable materials, recycling and healthy eating.

### LINKS TO? (Cross curricular History, Geography and Science links, PSHE, Values etc)

Whole Year	<b>Houses for the Three Little Pigs</b> links to the children's learning in English (The Three Little Pigs) and Science (Everyday Materials). <b>Fruit Salad</b> links to Science (Senses and the Human Body). <b>Cardboard Animals</b> links to Science (Animals).	<b>Sewing a finger puppet</b> links to Science (Materials) <b>Making a sandwich</b> links to Science (Growing Up)	<b>Making a moving picture</b> link to Science (How does your garden grow?)	<b>Electric Pictures</b> link to Science <b>Pencil Cases</b> links with PSHE (Celebrating Difference) <b>Making Soup</b> links with Science (Human Impact)	<b>Food for a Healthy Heart</b> links with Science (Body Pump)) <b>Birdfeeders</b> links with Science (Everyday Materials)	<b>Christmas Decorations</b> links with Science (electricity) and RE <b>Bags</b> links with the school trip to Bude
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