DESIGN TECHNOLOGY IN THE EARLY YEARS FOUNDATION STAGE
Physical Development Progress towards a more fluent style of moving with developing control. 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. **Early Learning Goals:** **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.

DESIGNING						
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Understanding contexts, users and purposes	work confidently within a range of contexts, such as imaginary, story-based, home, school, gardens, playgrounds, local community, industry describe what their products are for say how their products will work	state what products they are designing and making say whether their products are for themselves or other users say how they will make their products suitable for their intended users	work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry describe the purpose of their products indicate the design explain how particular parts of their products work	indicate the design features of their products that will appeal to intended users gather information about the needs and wants of particular individuals and groups develop their own design criteria and use	work confidently within a range of contexts, such as the home, school, leisure, culture, enterprise, industry indicate the design features of their products that will appeal to intended users	carry out research, using surveys, interviews, questionnaires and web-based resources identify the needs, wants, preferences and values of particular individuals and groups develop a simple design specification

	use simple design criteria to help develop their ideas			these to inform their ideas	explain how particular parts of their products work	to guide their thinking
Generating, developing, modelling and communicating ideas	generate ideas by drawing on their own experiences develop and communicate ideas by talking and drawing	use knowledge of existing products to help come up with ideas model ideas by exploring materials, components and construction kits and by making templates and mock- ups use information and communication technology, where appropriate, to develop and communicate their ideas	share and clarify ideas through discussion use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas use computer-aided design, where appropriate, to develop and communicate their ideas	model their ideas using prototypes and pattern pieces generate realistic ideas, focusing on the needs of the user make design decisions that take account of the availability of resources	share and clarify ideas through discussion generate innovative ideas, drawing on research make design decisions, taking account of constraints such as time, resources and cost	model their ideas using prototypes and pattern pieces use annotated sketches, cross-sectional drawings and exploded diagrams to develop and communicate their ideas use computer-aided design to develop and communicate their ideas
PLANNING & MAKING						
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Planning	plan by suggesting what to do next select from a range of tools and equipment, explaining their choices	select from a range of materials and components according to their characteristics begin to order the stages of making	order the main stages of making select tools and equipment suitable for the task select materials and components suitable for the task	explain their choice of tools and equipment in relation to the skills and techniques they will be using explain their choice of materials and components according to functional properties and aesthetic qualities	produce appropriate lists of tools, equipment and materials that they need formulate step-by-step plans as a guide to making	explain their choice of tools and equipment in relation to the skills and techniques they will be using explain their choice of materials and components according to functional properties

					select tools and equipment suitable for the task select materials and components suitable for the task	and aesthetic qualities
Practical skills and techniques	follow procedures for safety and hygiene use a range of materials and components, including construction materials and kits, textiles, food ingredients and mechanical components. use finishing techniques, including those from art and design	measure, mark out, cut and shape materials and components assemble, join and combine materials and components	measure, mark out, cut and shape materials and components with some accuracy assemble, join and combine materials and components with some accuracy apply a range of finishing techniques, including those from art and design, with some accuracy	measure, mark out, cut and shape materials and components with increasing accuracy assemble, join and combine materials and components with accuracy apply a range of finishing techniques, including those from art and design, with accuracy	accurately measure, mark out, cut and shape materials and components accurately assemble, join and combine materials and components use techniques that involve a number of steps	demonstrate resourcefulness when tackling practical problems accurately apply a range of finishing techniques, including those from art and design
	EVALUATING					
	Year 1 & 2		**Year 3 & 4**		**Year 5 & 6**	
Own ideas and products	talk about their design ideas and what they are making make simple judgements about their products and ideas against design criteria	suggest how their products could be improved	identify the strengths and areas for development in their ideas and products refer to their design criteria as they design and make	consider the views of others, including intended users, to improve their work use their design criteria to evaluate their completed products	identify the strengths and areas for development in their ideas and products critically evaluate the quality of the design, manufacture and fitness for purpose of their products as they design and make evaluate their ideas and products against their original design specification	consider the views of others, including intended users, to improve their work

Existing products	Across KS1 pupils should explore: what products are who products are for what materials products are made from	Across KS1 pupils should explore: How products are used where products might be used what they like and dislike about products what products are for how products work	Pupils should investigate and analyse: how well products have been designed how well products have been made how well products work how well products achieve their purposes	Pupils should investigate and analyse: how well products meet user needs and wants what methods of construction have been used why materials have been chosen	Pupils should investigate and analyse: how well products have been designed how well products have been made why materials have been chosen what methods of construction have been used how well products work how well products achieve their purposes	how well products meet user needs and wants In late KS2 pupils should also investigate and analyse: how much products cost to make how innovative products are how sustainable the materials in products are what impact products have beyond their intended purpose
	TECHNICAL KNOWLEDGE					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Making products work	about the simple working characteristics of materials and components how freestanding structures can be made stronger, stiffer and more stable use the correct technical vocabulary for the projects they are undertaking	about the movement of simple mechanisms such as levers, sliders, wheels and axles that a 3-D textiles product can be assembled from two identical fabric shapes use the correct technical vocabulary for the projects they are undertaking	how to use learning from science and maths to help design and make products that work that materials have both functional properties and aesthetic qualities that mechanical and electrical systems have an input, process and output how to make strong, stiff shell structures	how to use learning from science and maths to help design and make products that work that materials can be combined and mixed to create more useful characteristics how mechanical systems such as levers and linkages or pneumatic systems create movement how simple electrical circuits and	that materials have both functional properties and aesthetic qualities that materials can be combined and mixed to create more useful characteristics that a 3D textiles product can be made from a combination of fabric shapes	how more complex electrical circuits and components can be used to create functional products how to program a computer to monitor changes in the environment and control their products how to reinforce and strengthen a 3D framework

			that a single fabric shape can be used to make a 3D textiles product	components can be used to create functional products		

	Cooking and Nutrition					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5 & 6**	
Food preparation, cooking and nutrition	• how to name and sort foods into the five groups • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes	• how to name and sort foods into the five groups • that everyone should eat at least five portions of fruit and vegetables every day • how to prepare simple dishes	• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically • how to use a range of techniques such as peeling, chopping, slicing,	• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source	• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source	• how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source

	safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating with support	safely and hygienically, without using a heat source • how to use techniques such as cutting, peeling and grating independently	grating, mixing, spreading, kneading and baking • that a healthy diet is made up from a variety and balance of different food and drink, as depicted in the Eatwell Guide • that to be active and healthy, food and drink are needed to provide energy for the body	• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking with increasing independence • that to be active and healthy, food and drink are needed to provide energy for the body • that food contains different substances for our health	• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • that recipes can be adapted to change the appearance, taste, texture and aroma • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health	• how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking • adapt recipes to change the appearance, taste, texture and aroma • that different food and drink contain different substances – nutrients, water and fibre – that are needed for health

GREATER DEPTH IN DESIGN TECHNOLOGY

At St John's a greater depth designer will display the following skills and attributes:

- Work completely independently.
- Demonstrate a creative response to the problem
- Stick tightly to the brief and consider the end user's needs and preferences throughout the process.
- Think critically about and comment on other products and their own product
- Amend their product to improve its outcome.
- Display high quality presentation and precision throughout the process of design and make