Farnworth CE Primary School
Curriculum Map
Design Technology

EYFS	Expressive Arts and Design	Communication and Language	Physical Development
	Children in Reception -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 **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.	Children in Reception -Understand how to listen carefully and why listening is important. -Learn new vocabulary. -Use new vocabulary through the day. -Ask questions to find out more and to check they understand what has been said to them. -Use new vocabulary in different contexts. -Listen carefully to rhymes and songs, paying attention to how they sound. Early Learning Goals **Listening, Attention and Understanding** -Listen attentively and respond to what they hear with relevant questions, comments and actions	Children in Reception -Develop their small motor skills so that they can use a range of tools competently, safely and confidently. -Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. -Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. Early Learning Goals **Fine Motor skills** -Use a range of small tools, including scissors, paint brushes and cutlery. -Begin to show accuracy and care when drawing.

		when being read to and during whole class discussions and small group interactions. -Make comments about what they have heard and ask questions to clarify their understanding. **Speaking** -Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.	
	Autumn	**Spring**	**Summer**
Year 1	Structures - Freestanding structures • Generate ideas based on simple design criteria • Explore a range of existing structures in the school and local environment • Select appropriate tools and materials, explaining their choice • Know how to make freestanding structures stronger, stiffer and more stable	Mechanisms - Sliders and levers • Generate ideas based on simple design criteria • Explore a range of existing products using sliders and levers • Select appropriate tools and use simple finishing techniques • Understand that different mechanisms produce different types of movement	Food - Preparing fruit and vegetables • Generate ideas through exploring a range of fruit and vegetables • Taste a range of fruit and vegetables, exploring preferences • Design appealing products for a particular user • Evaluate finished products against design criteria •
Year 2	Structures - Chatter Box Puppets • Generate initial ideas, talking through own experiences • Explore a range of nets to make 3D structures • Select appropriate tools and fixing materials	Mechanisms - Wheels and axles • Generate initial ideas, talking through own experiences • Explore a range of products with wheels and axles • Select from a range of tools for cutting and joining	Textiles - Templates and joining • Explore a range of existing textile products relevant to the project • Design a functional and appealing product for a chosen user • Select from a range of tools for cutting and joining

	• Understand how hinges can be used to make moving parts	• Distinguish between fixed and freely moving axles	• Understand how simple 3D textiles are made using templates
Year 3	Mechanisms - Levers and linkages • Generate ideas based on design criteria • Explore a range of more complex existing products using levers and linkages to create movement • Select appropriate materials to create the desired movement in their product • Understand that different mechanisms produce different types of movement	Food - Healthy and varied diet • Generate ideas using criteria such as appearance, taste, texture and aroma • Carry out sensory evaluations of a range of ingredients • Select and use appropriate tools and utensils to prepare and combing ingredients • Evaluate the final product in relation to design criteria	Lego Project - WeDo sessions • Follow instructions to make pre-determined products • Link computer technology to products and program simple instructions • Innovate and redesign pre-determined product to create new and exciting toys for an intended user
Year 4	Structures - Shell structures • Investigate a range of existing shell structures • Develop deeper understanding of the use of nets to create 3D structures • Select and use appropriate tools to measure, mark and create structures • Make and evaluate products designed with a specific user in mind	Electrical systems - Simple circuits and switches • Investigate a range of battery powered systems and their electrical circuits • Gather information about needs and wants • Design product creating multiple sketches and diagrams • Make and evaluate their products, noting strengths and areas for improvement	Textiles - 2D shape to 3D product • Explore a range of existing textile products relevant to the project • Produce annotated sketches of designed product • Select from a range of tools and materials such as fasteners according to functional characteristics • Know how to strengthen, reinforce and stiffen existing fabrics and understand how to effectively join fabrics
Year 5	Lego Project - WeDo sessions • Follow instructions to make more complex pre-determined products	Food - Celebrating culture and seasonality • Generate ideas using criteria such as appearance, taste, texture and aroma	Mechanisms - Pulleys or gears • Generate ideas based on design criteria • Explore a range of more complex existing products using pulleys and

	• Link computer technology to products and program more complex instructions • Develop new products with complex design features to solve real world problems • Test and analyse results to evaluate effectiveness of the products	• Carry out sensory evaluations of a range of ingredients • Select and use appropriate tools/utensils to prepare/combine ingredients, writing step-by-step procedures/annotated diagrams • Evaluate the product in relation to design, taking into account the views of others	gears to create movement, including gear ratios • Build on understanding of electrical circuitry, axles and wheels to make powered moving parts • Design, make and evaluate the effectiveness of their product, suggesting methods of improvement in their design
Year 6	Structures - Frame structures • Investigate and evaluate a range of existing frame structures • Carry out research into user needs and develop innovative ideas and sketches • Formulate a plan, including step-by-step list of actions, materials and tools • Critically evaluate products • Understand how to strengthen, stiffen and reinforce 3D frameworks	Textiles - Combining different fabric shapes • Generate innovative ideas by carrying out research including surveys / interviews • Design purposeful, appealing and functional products for an intended user • Formulate step-by-step plans and produce detailed lists of equipment / fabrics needed • Select from a range of tools and materials to make products that are well finished	Electrical systems -More complex switches • Understand and use electrical systems in their products and use related technical vocabulary • Use research to develop a specific design for an intended user, taking into account time to make • Formulate a step-by-step plan listing tools, equipment, materials and components • Continually test and evaluate the product during construction, correcting errors along the way