Cycle A Design Technology Year 3/4

	Topic	Curriculum Links	Aims/Activity	National Curriculum Skills	Pupil Knowledge	Vocab
Autumn	Healthy Humans	Science	Children will evaluate, design and make different foods that could form part of a healthy picnic.	▪ Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. ▪ Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury). ▪ Follow instructions/recipes. ▪ Make healthy eating choices – use the *Eatwell plate.* ▪ Join and combine a range of ingredients. ▪ Investigate similar products to the one to be made to give starting points for a design. ▪ Consider and explain how the finished product could be improved.	▪ A recipe is a set of instructions for making foods. ▪ I can follow instructions. ▪ I understand the principles of the eatwell plate. ▪ I can join and combine ingredients together effectively for flavour. ▪ I know that fruit and vegetables are seasonal and I know what this means. ▪ I can chop, boil and dice. ▪ I can make healthy choices about the foods I eat. ▪ I have looked at recipes by a known chef.	▪ Smell ▪ Taste ▪ Texture ▪ Feel ▪ Savoury ▪ Sweet ▪ Picnic ▪ Protein ▪ Sugar ▪ Carbohydrate ▪ Fat ▪ Vitamins ▪ Minerals ▪ Chop ▪ Boil ▪ Dice
Spring	The Iron Man	English	Children will explore a range of Levers and Linkages contained within a selection of Pop Up books.	▪ Develop more than one design or adaptation of an initial design. ▪ Plan a sequence of actions to make a product.	▪ I can make a story board and explain its purpose.	▪ Lever ▪ Linkage ▪ Mechanical ▪ Slots

			They will then design and make a Pop-up book or story board with moving parts that links to the text 'The Iron Man'.	▪ Record the plan by drawing using annotated sketches. ▪ Begin to use cross-sectional and exploded diagrams. ▪ Use prototypes to develop and share ideas. ▪ 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. ▪ Consider aesthetic qualities of materials chosen. ▪ Prepare pattern pieces as templates for their design. ▪ Cut slots. ▪ Cut internal shapes. ▪ Select from a range of tools for cutting shaping joining and finishing. ▪ Use tools with accuracy. ▪ Select from techniques for different parts of the process. ▪ Select from materials according to their functional properties. ▪ Plan the stages of the making process. ▪ Use appropriate finishing techniques. ▪ Investigate similar products to the one to be made to give starting points for a design.	▪ I can talk about and make a range of linkages. ▪ I know how to make a lever with a pivot point. ▪ I take pride in my finished product and complete it to the best of my ability. ▪ I can measure accurately. ▪ I can draw a diagram with labels.	▪ Sequence ▪ Accurate ▪ Pop-up ▪ Pivot ▪ Robust

				▪ Draw/sketch products to help analyse and understand how products are made. ▪ Identify the strengths and weaknesses of their design ideas in relation to purpose/user.		
Summer	How Does Your Garden Grow?	Science Maths	Children will design and make a card prototype miniature windowsill-planting box, leading to one being made from a stronger material such as balsa wood.	▪ Develop more than one design or adaptation of an initial design. ▪ Plan a sequence of actions to make a product. ▪ Record the plan by drawing using annotated sketches. ▪ Begin to use cross-sectional and exploded diagrams. ▪ Use prototypes to develop and share ideas. ▪ 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. ▪ Consider aesthetic qualities of materials chosen. ▪ Prepare pattern pieces as templates for their design. ▪ Select from a range of tools for cutting shaping joining and finishing. ▪ Use tools with accuracy. ▪ Select from techniques for different parts of the process.	▪ I can investigate a range of products. ▪ I can make a basic frame. ▪ I know how to and can strengthen a frame. ▪ I can recognise and use a diagonal strut. ▪ I can select the correct tools. ▪ I can use tools safely and effectively. ▪ I can make my own template and use it. ▪ I can measure accurately. ▪ I understand that a structure with a wide base is more stable.	▪ Investigate ▪ Product ▪ Template ▪ Design brief ▪ Frame ▪ Strengthen ▪ Diagonal strut ▪ Stable ▪ Measure ▪ Cut ▪ Saw ▪ Glue

				▪ Select from materials according to their functional properties. ▪ Plan the stages of the making process. ▪ Use appropriate finishing techniques. ▪ Develop vocabulary related to the project. ▪ Create shell or frame structures. ▪ Strengthen frames with diagonal struts. ▪ Make structures more stable by giving them a wide base. ▪ Measure and mark square section, strip and dowel accurately to 1cm. ▪ Identify the strengths and weaknesses of their design ideas in relation to purpose/user.		