Year Groups						
	Year 1/ 2 Year A	Year 1 /2 Year B	Year 3	Year 4	Year 5	Year 6
Themes						
	Levers- Design a Christmas Card Food- Fruit and veg: smoothies Freestanding Structures- Billy Goat Gruff Bridge	Food- a balanced diet. Healthy jelly and a wrap. Wheels and Axels- Safari Jeeps Textiles- Puppets: joining techniques.	Structures- 2d-3d textiles. Stone Age Bag. Food- Healthy and varied diet. Healthy afternoon tea. Levers and Linkages- Make a greek puppet using linkages.	Pneumatic- moving animal creature. Shell Structure using Shell Structures- Make a gift box for chocolates to go in. Electricity- Simple circuits and switches.	Textiles with CAD- Make a bag for someone as a gift. Cross Stitch. Mechanical Systems- Pulleys and Gears. (TBC after consultation with lead of DT course)	Structures- Frame structures. Design something for FS2s outdoor area. Food-seasonality. Make a Victorian soup using seasonal vegetables. Electrical Systems- Monitoring and control. People keep eating Mr Chwalko's chocolate. How can we stop this happening?
Curriculum objectives						
Design and communicating	• Model their ideas in card and paper	.Develop their design ideas through discussion,	• Identify a purpose and establish	• Generate ideas, considering the purposes for which they are designing.	• Develop a clear idea of what has to be done, planning how to use materials,	• Design a structure using triangulation

	• Develop their ideas applying findings from earlier research and prototypes. • Make adaptions when things don't work for example if the bridge collapses when the goat is placed on. • Design a template.	observation, drawing and modelling. • Identify a purpose for what they intend to design and make. • Identify simple design criteria. • Make simple drawings and label parts • Design an axle and wheel	criteria for a successful product. • Plan the order of their work before starting. • Explore, develop and communicate design proposals by modelling ideas. • Make drawings with labels when design a template before making • Use budget information to cost recipes • Use taste test questionnaires	• Make labelled drawings from different views showing specific features. • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail. • Draw nest to create a structure from • Explore, develop and communicate design proposals by modelling ideas	equipment and processes, and suggesting alternative methods of making if the first attempts fail. • Use results of investigations, information sources, including ICT when developing design ideas. • Experiment with cams to produce movement, understand linkages and how they change the direction of force	.Communicate their ideas through detailed labelled drawings. Consider effective and ineffective designs • Develop a design specification. • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways. • Plan the order of their work, choosing appropriate materials, tools and techniques. • Name components • Design and make prototypes

Making and using tools	• Make their design using appropriate techniques. • With help they can measure and cut materials. • Use tools eg scissors, hole punch for cards, knives for cooking. • Assemble join and combine materials and components using a variety of temporary methods. E.g glues for card, masking tape for bridge. • Use simple finishing	• Begin to select tools and materials; use vocab' to name and describe them. • Assemble, join and combine materials in order to make a product. • Follow safe procedures for food safety and hygiene. • Choose and use appropriate finishing techniques • Consider how food looks and flavour combinations that appeal • Thread a needle • Pin and cut fabric • Create joints and structures from card and paper • Strengthen materials by folding paper	Select tools and techniques for making their product. • Measure, mark out, cut, score and assemble components with more accuracy. • Work safely and accurately with a range of simple tools. • Think about their ideas as they make progress and be willing to change things if this helps them improve their work. •Demonstrate hygienic food	Select appropriate tools and techniques for making their product. • Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. • Join and combine materials and components accurately in temporary and permanent ways. • Use simple graphic communication techniques. • Use nets to create a range of different shaped structures • Make a functioning circuit • Link knowledge gained in science to support the	• Select appropriate materials, tools and techniques. • Measure and mark out accurately. • Use skills in using different tools and equipment safely and accurately. • Cut and join with accuracy to ensure a good-quality finish to the product. • Create a strong and secure blanket stitch • Thread needles independently • Understand the applique process to add decoration • Understand the functions of wood	• Select appropriate tools, materials, components and techniques. Cut and measure accurately • Assemble components to make working models. • Construct products using permanent joining techniques. • Make modifications as they go along. • Understand how to cut out a pattern • Understand how to use quality and secure fastenings • Achieve a quality finish on a product

	techniques to improve the appearance of their product. • Use tools to chop and prepare vegetables and fruit. • Cut safely using scissors. • Sequence steps to construction.		preparation and storage. • Apply the rules for basic food hygiene and other safe practices e.g. hazards relating to the use of ovens • Use finishing techniques strengthen and improve the appearance of their product. • Consider taste , smell and appearance of food • Draw and label a design eg. Textile bag. • Create facades	construction of a torch for Manfish.	• Make pivots, folds, sliders • Hide the working parts of a mechanism using layers and spacers • Pin, sew and use a range of stitches to join materials together create a product	• Construct a stable base for something exciting in FS2. • Make and test a circuit • Incorporate a circuit into the base • Create a functioning frame • Understand the need for accuracy when adding components to a frame • Understand seasonality of common fruit and veg

Evaluating	• Evaluate their products as they are developed, identifying strengths and possible changes they might make and how well it works in relation to the purpose. • Evaluate their product by asking questions about what they have made and how they've gone about it Are the structures strong?	• Evaluate against their design criteria. • Evaluate their products as they are developed, identifying strengths and possible changes they might make. • Talk about their ideas, saying what they like and dislike about them.	• Evaluate their product against original design criteria e.g. how well it meets its intended purpose. • Disassemble and evaluate familiar products	• Evaluate their work both during and at the end of the assignment. • Evaluate their products carrying out appropriate tests	• Evaluate a product against the original design specification. • Evaluate it personally and seek evaluation from others.	• Evaluate their products identifying strengths and areas for development, and carrying out appropriate tests. • Record their evaluations using drawings with labels. • Evaluate against their original criteria and suggest ways that their product could be improved
Vocabulary						
	Functional. Design, criteria, generate, develop, model, communicate,, technology, equipment, cutting, shaping, joining, finishing, components, textiles, ingredients, structures, stronger, stiffer, stable, mechanism, purpose, healthy b		Functional. design, criteria, generate, develop, model, communicate,, technology, equipment, cutting, shaping, joining, finishing, components, textiles, ingredients, structures, stronger, stiffer, stable, mechanism, context, discussion, cross section, annotate, exploded diagrams, prototypes, pattern pieces, computer-aided design, aesthetic, construction materials, investigate, analyse, reinforce, monitor, control, seasonality, nutrition, cam, net , circuit.			

Sticky Knowledge						
	Children will know what joins are most stable. Children will know what materials would be best to make a stable structure. Children will know what foods are healthy. Children will be able to name a selection of fruit and vegatables. Children will know what a lever is. Children will know why we need levers. Children will know what a bridge is and see a selection of real life examples.	Children will know what the word healthy means. Children will be able to name a selection of healthy foods. Children will be able to name a selection of fruit and veg. Children will know that a car needs wheels and an axel to move. Children will have knowledge of a selection of puppets and what they are. Children will be able to name basic stitch such as the running stitch.	Children will be able to name stitches including running stitch, backwards running stitch, over stitch, back stitch. Children will be able to say the differences between each stitch. Children will be able to name what makes up a varied and healthy diet. Children will be able to name carbohydrates, protein, sugars, fats. Children will know that everything is good in moderation.	Children will be able to name what a pneumatic is. Children will be able to explain how a pneumatic works. Children will have understanding of 3d shapes. Children will be able to problem solve to work out that a basket needs a handle and to get the eggs out so why won't usually nets work? Children will be able to say what a shell structure is. Children will have basic knowledge of what a switch and circuit is. Children will know what we use switches and circuits are.	Children will be able to use previous knowledge to name stitches including running stitch, backwards running stitch, over stitch, back stitch. Use new knowledge to name a cross stitch. Children will have previous knowledge of angle. Children will know that in order for a gear to work all prongs have to be same angle apart. Children will know real life contexts of when pulleys are used. Children will know that to get a pulley to work you need	Children will be able to explain what seasonality is. Children will be able to name what fruit and vegetables are harvested in March and April. Children will have knowledge of 3 d shapes and how we can make these. Children will have health and safety understanding to be safe with willow. Children will have prior knowledge on joining skills for how to make their shell structure. Children will have understanding of why we need alarms. Children will have electrical

			Children will be able to name information on the greeks. Children will be able to tell a greek myth story. Children will use their knowledge on levers to be able to make a linkage. Have understanding of what a pivot is.		to get it to pull something up.	knowledge through science to be able to make the circuit.