St Michael and St John's RC Primary School

Knowledge of Skills and Progression Map

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	EAD – 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;	▪ Explore ideas by rearranging materials. Select pictures to help develop ideas. ▪ Use drawings to record ideas as they are developed. ▪ Add notes to drawings to help explanations.	▪ Use pictures and words to convey what they want to design/make. ▪ Propose more than one idea for their product. ▪ Use kits/reclaimed materials to develop more than one idea. ▪ Model ideas with kits, reclaimed materials.	▪ 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.	▪ Use prototypes to develop and share ideas. ▪ Propose realistic suggestions as to how they can achieve their design ideas. ▪ Begin to use cross-sectional and exploded diagrams. ▪ Use CAD where appropriate.	▪ Plan the sequence of work e.g. using a storyboard. ▪ Record ideas using annotated diagrams. ▪ Devise step by step plans which can be read / followed by someone else.	▪ Sketch and model alternative ideas. ▪ Use models, kits and drawings to help formulate design ideas. ▪ Combine modelling and drawing to refine ideas. ▪ Use exploded diagrams and cross-sectional diagrams to communicate ideas.
Make	EAD – Creating with Materials: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour,	▪ Discuss their work as it progresses. ▪ Select materials from a limited range that will meet the design criteria.	▪ Discuss their work as it progresses. Select materials from a limited range that will meet the design criteria.	▪ Prepare pattern pieces as templates for their design. ▪ Cut slots. ▪ Cut internal shapes.	▪ Plan the stages of the making process. ▪ Use appropriate finishing techniques. ▪ Use tools with accuracy.	▪ Use a computer to model ideas. ▪ Select from and use a wide range of tools. ▪ Cut accurately and safely to a marked line.	▪ Make prototypes. ▪ Develop one idea in depth. ▪ Select from and use a wide range of materials. ▪ Refine their product – review and rework/improve.

	design, texture, form and function; - Make use of props and materials when role playing characters in narratives and stories. Physical Development: Fine Motor Skills: - Use a range of small tools, including scissors, paint brushes and cutlery;					▪ Use appropriate finishing techniques for the project.	
Evaluate	EAD – Creating with Materials: - Share their creations, explaining the process they have used;	▪ Talk about their design as they develop and identify good and bad points. ▪ Note changes made during the making process as annotation to plans/drawings.	▪ Talk about their design as they develop and identify good and bad points. Note changes made during the making process as annotation to plans/drawings.	▪ 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.	▪ 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.	▪ Consider user and purpose. ▪ Identify the strengths and weaknesses of their design ideas. ▪ Give a report using correct technical vocabulary.	▪ Consider user and purpose. ▪ Identify the strengths and weaknesses of their design ideas. Give a report using correct technical vocabulary.
Food	EAD – Creating with materials: - Safely use and explore a variety of materials, tools and techniques,	▪ Group familiar food products e.g. fruit and vegetables. ▪ Cut, peel, grate, chop a range of ingredients		▪ Follow instructions/recipes. ▪ Make healthy eating choices – use the *Eatwell plate*. ▪ Join and combine a range of ingredients.		▪ Prepare food products taking into account the properties of ingredients and sensory characteristics. ▪ Weigh and measure using scales.	

	experimenting with colour, design, texture, form and function; Physical Development: Fine Motor Skills: - Use a range of small tools, including scissors, paint brushes and cutlery;					▪ Select and prepare foods for a particular purpose. ▪ Use a range of cooking techniques.	
Textiles	EAD – Creating with materials: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;		▪ Cut out shapes which have been created by drawing round a template onto the fabric. ▪ Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. ▪ Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. ▪ Colour fabrics using a range of techniques e.g. fabric paints, printing, painting.		▪ Explore strengthening and stiffening of fabrics. ▪ Explore fastenings (inventors?) and recreate some. ▪ Sew on buttons and make loops. ▪ Use appropriate decoration techniques. Develop vocabulary for tools materials and their properties. ▪ Understand seam allowance. ▪ Join fabrics using running stitch, over sewing, blanket stitch. ▪ Prototype a product using J cloths. ▪ Use prototype to make pattern.		▪ Use the correct vocabulary appropriate to the project. ▪ Create 3D products using patterns pieces and seam allowance. ▪ Decorate textiles appropriately (often before joining components). ▪ Pin and tack fabric pieces together. ▪ Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). ▪ Combine fabrics to create more useful properties. ▪ Make quality products.

Structures	EAD – Creating with materials: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	▪ Explore how to make structures stronger. ▪ Mark out materials to be cut using a template. ▪ Join appropriately for different materials and situations e.g. glue, tape.	▪ Test different methods of enabling structures to remain stable. ▪ Join appropriately for different materials and situations e.g. glue, tape. ▪ Use a glue gun with close supervision.	▪ 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.	▪ Use bradawl to mark hole positions. ▪ Use hand drill to drill tight and loose fit holes. ▪ Cut strip wood, dowel, square section wood accurately to 1mm. ▪ Join materials using appropriate methods.	▪ Build frameworks to support mechanisms. ▪ Stiffen and reinforce complex structures.
Mechanisms	EAD – Creating with materials: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	▪ Join appropriately for different materials and situations e.g. glue, tape. ▪ Try out different axle fixings and their strengths and weaknesses. ▪ Make vehicles with construction kits which contain free running wheels. ▪ Use a range of materials to create models with	▪ Join appropriately for different materials and situations e.g. glue, tape. ▪ Mark out materials to be cut using a template. ▪ Fold, tear and cut paper and card. ▪ Cut along lines, straight and curved. ▪ Use a hole punch. ▪ Insert paper fasteners for card.	• Use mechanical systems such as gears, pulleys, levers and linkages. ▪ Use lolly sticks/card to make levers and linkages. ▪ Use linkages to make movement larger or more varied.	▪ Incorporate a circuit into a model. ▪ Use electrical systems such as switches bulbs and buzzers. ▪ Use ICT to control products.	▪ Use mechanical systems such as cams, pulleys and gears. ▪ Use electrical systems such as motors.	▪ Program, monitor and control using ICT.

		wheels and axles e.g. tubes, dowel, cotton reels. ▪ Roll paper to create tubes. ▪ Cut dowel using hacksaw and bench hook. ▪ Attach wheels to a chassis using an axle.					