



Colliers Green Design and Technology Progression Map

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Designing and planning	<p>Use own ideas to make something.</p> <p>Make a simple plan before making.</p>	<p>Think of an idea and plan what to do next.</p>	<p>Prove that a design meets set criteria.</p> <p>Follow a step-by-step plan, choosing the right equipment and materials.</p> <p>Design a product and make sure it looks attractive to the specific audience.</p>	<p>Use ideas from other people when planning and designing.</p> <p>Produce a plan and explain it.</p> <p>Persevere and adapt work when original ideas do not work.</p>	<p>Create a range of ideas after collecting information from different sources.</p> <p>Produce a detailed step-by-step plan.</p> <p>Suggest alternative plans: outlining the positive features and draw backs.</p> <p>Explain how a product will appeal to a specific audience.</p> <p>Make a prototype before the final version.</p>	<p>Use Market research to inform designs, plans and ideas.</p> <p>Follow and refine designs and plans.</p> <p>Show consideration to culture and society in plans and designs.</p> <p>Work within a budget.</p>
Structures	<p>Make a stable structure from card, tape and glue.</p> <p>Make functioning turbines and axles which are assembled into a main supporting structure.</p>	<p>Learn about different types of structures, found in the natural world and in everyday objects.</p>	<p>Design a structure with key features to appeal to a specific person/ purpose.</p> <p>Draw and label a design using 2D shapes, labelling: - the 3D shapes that will create the features - materials need and colours.</p>	<p>Design a stable structure that is aesthetically pleasing and select materials to create a desired effect.</p> <p>Build a frame structures designed to support weight.</p>	<p>Design a stable structure that is able to support weight.</p> <p>Create a frame structure with focus on triangulation.</p>	<p>Design a scene featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.</p>
Mechanisms	<p>Follow a design to create moving models</p>	<p>Make linkages using card for levers and split pins for pivots.</p>	<p>Select materials due to their functional</p>	<p>Measure, mark, cut and assemble with increasing accuracy.</p>	<p>Make mechanisms and/ or structures using sliders, pivots</p>	<p>Measure, mark and cut components</p>

	that uses levers and sliders.	Select materials according to their characteristics.	and aesthetic characteristics. Manipulate materials to create different effects by cutting, creasing, folding, weaving.	Making a model based on a chosen design.	and folds to produce movement.	accurately using a ruler and scissors. Assemble components accurately to make a stable frame. Select appropriate materials based on the materials being joined and the speed at which the glue needs to dry/set.
Electrical Systems			Make a product that uses both electrical and mechanical components.		Make a product that uses both electrical and mechanical components. Map out where different components of the circuit will go.	Make electrical motors and tweak the motor to improve its function.
Cooking and Nutrition	Chop fruit and vegetables safely. Identify if a food is a fruit or a vegetable. Learn where and how fruits and vegetables grow.	Slice food safely using the bridge or claw grip.	Know how to prepare themselves and a work space to cook safely in, learning the basic rules to avoid food contamination. Follow the instructions within a recipe.	Follow a recipe. Cook safely, following basic hygiene rules. Adapt a recipe.	Use equipment safely, including knives, hot pans and hobs. Know how to avoid cross-contamination.	Adapt a recipe based on research. Work to a given timescale. Work safely and hygienically with independence.
Textiles	Cut fabric neatly with scissors. Use joining methods to join two pieces of fabric.	Select and cut fabrics for sewing. Decorate fabric using fabric glue or running stitch	Select and cut fabrics with ease using scissors. Sew a cross stitch to join fabric.	Measure, mark and cut fabric using a paper template. Select a stitch style to join fabric, working	Measure, mark and cut fabric accurately and independently. Create strong and secure blanket	Use a template; pinning panels onto fabric. Mark and cut fabric accurately, in

			Decorate fabric using appliqué. Complete design ideas with stuffing and sewing the edges.	neatly sewing small neat stitches. Incorporate fastening (buttons) to a design.	stitches when joining fabric. Use applique to attach pieces of fabric decoration.	accordance with a design. Sew a strong running stitch, making small, neat stitches and following the edge.
Reflecting and Evaluating	Suggest points for improvement. Reflect on a finished product, explaining likes and dislikes. Test a finished product, seeing whether it moves as planned and if not, explain why and how it can be fixed. Review the success of a product by testing it with its intended audience.	Identify the weakest part of a structure. Evaluate the strength, stiffness and stability of own structure. Evaluate own designs against design criteria. Use peer feedback to modify a final design. Evaluate different designs. Test and adapt a design.	Review the success of a product by testing it with its intended audience. Using the views of others to improve designs. Learn to give constructive criticism on own work and the work of others. Test the success of a product against the original design criteria and justify opinions.	Test and evaluate an end product against the original design criteria. Decide how many of the criteria should be met for the product to be considered successful. Suggest modifications for improvement. Consider effective and ineffective designs. Explaining what makes a design/product effective or not.	Evaluate the work of others and receive feedback on own work. Test and evaluate an end product and give point for further improvements. Evaluate a completed product against the original design sheet and look at modifications that could be made to improve the reliability or aesthetics of the product.	Improve a design plan based on peer evaluation. Test, adapt and evaluate a design to improve the product as it is developed. Identify what makes a successful design and product. Evaluate the work of others and receive feedback on own work. Apply points of improvements. Describe changes to be made if they were to do the project again.