

EYFS	End points / questions	Key Vocabulary
Structures Junk Modelling	<p>Know how to explore and investigate the tools and materials in the junk modelling area. (Tell me about your model. I wonder how we could join those two materials together?)</p> <p>Know how to use scissors. (Can you snip the material? Can you use fine motor skills to use the scissors correctly?)</p> <p>Know how to cut different materials.</p> <p>Understand how to plan and select the correct resources needed to make a model. (Tell me about you model. Can you name the tools? Can you tell me any problems with the model and make suggestions of how to solve them?)</p> <p>Know how to plan and create a junk model.</p> <p>Know how to share a finished model and talk about the processes in its creation. (How could we share the bottle tops so that we can all use some? (What is your favourite part of your model? Why? What is your least favourite part of your model? Why? If you made the same model again, would you want to do anything differently? Which materials did you use to make your model? How did you join 'x' and 'y' together? Which tools did you use to help you make your model? Is your model the same as you planned it to be? If not, why not?)</p> <p>Know different ways to temporarily join materials together.(I wonder how you could join those two materials together? I wonder what you could use to make that string shorter?)</p>	<p>Design, make, join, equipment, materials, improve.</p>
Cooking and Nutrition: Soup	<p>End points / questions</p> <p>Know how to explore fruits and vegetables and the differences between them. (Do you have a favourite fruit or vegetable?)</p> <p>Know adjectives to describe how fruits and vegetables look, feel, smell and taste. (How can we tell that is that is a fruit or vegetable? How does it feel/ How does it taste? What does it look like?)</p> <p>Understand elements from the story 'The Best Pumpkin Soup.' (Can you remember the other ingredients they added to the pumpkin soup story?)</p> <p>Know how to explore a pumpkin and describe it using the five senses. (What do you think about the soup?)</p> <p>Know how to design a fruit and vegetable soup recipe. (I wonder which vegetables we could add to our soup to make it the best we've ever tasted?)</p> <p>Know how to how to use a knife safely.</p> <p>Know how to use of tools to prepare ingredients.</p> <p>Understand how to describe the finished product and evaluate the process. (Would you add anything else or take anything away from the recipe next time? Is the soup the best you have ever tasted?)</p> <p>Know how to design food packaging. (I wonder which food packaging is most useful? Which soup packaging do you like the best? Why?)</p>	<p>Healthy, unhealthy, fruit, vegetable, ingredients, weigh, mix, tablespoon, teaspoon, wooden spoon, scales, healthy diet.</p>
Textiles: Bookmarks	<p>End points / questions</p> <p>Know how to thread and weave. (The ribbon goes over and under what's next?)</p> <p>To practise and apply weaving skills to a specific material e.g. paper.</p> <p>To practise and apply threading skills with specific materials e.g. hessian and wool.</p> <p>Know how to use threading or sewing to design a product (bookmark). (Tell me about the bookmarks designs? What do you notice?)</p> <p>Know how to create a textiles product (bookmark) following their own design. (What did you want to do?)</p> <p>Understand how to reflect with children on how they have achieved their aims.</p>	<p>Design, make, join, equipment, materials, improve.</p>

<p>Structures: Boats</p>	<p>End points / questions</p> <p>Understand what waterproof means and to test whether materials are waterproof. (Are all the boats waterproof? How do we know? Could you make a prediction about whether this material would be waterproof or not? Is it waterproof? How can you tell? What might happen if we made the playdough into a dough shape? I wonder if it would make a difference?)</p> <p>Understand what waterproof means and to test whether materials are waterproof. (Which is the best waterproof material? I wonder what would happen if we took the lid off the bottle? Would it still float? Would a ball of tin foil float as well as a flat piece? I wonder how we could test that?) To compare the uses of boats. (Tell me what you know about boats? I wonder what that boat is used for?)</p> <p>Know how the shape and structure of boats affects the way they move. (How can you make sure the boat floats? I wonder which boats floats the best? I wonder how we could test that? What do you think might happen if we?)</p> <p>Know how to design a boat. (Can you tell me about your design? Can you name the different parts of your boat? I wonder how you will join these parts together? How can you make sure your boats floats?)</p> <p>Know how to create a boat based upon their own design. (I wonder how you will join these parts together? Was your design a success. Would you change anything if you built your boat again?)</p>	<p>Design, make, join, equipment, materials, improve, waterproof, test.</p>
<p>Seasonal Projects</p>	<p>End points / questions</p> <p>Know how to design and make a hibernation box. (Tell me about what you know about Autumn? Can you tell me about your design?)</p> <p>Understand what hibernation needs and why some animals hibernate. (I wonder what signs of the season we will see?)</p> <p>Know how to design and make a hibernation box. (Can you tell me about your design?)</p> <p>Understand what hibernation needs and why some animals hibernate. (What is hibernation?)</p> <p>Know how to create a picture with a simple sliding mechanism. (I wonder how you could join these materials? I wonder how wide your chimney needs to be? How could we test if Santa will fit? It looks like your chimney might be too tall. I can't see Santa at the top. How could you solve the problem?)</p> <p>Know how to design and create a hanging Easter egg decoration. (Let's remember why eggs are a symbol of Easter?)</p> <p>Know how to use a range of tools and techniques to create a threaded spring flower. (Tell me about your flower? I wonder if we could use punches to make a pattern?)</p> <p>Know how to design a rainbow salad recipe. (Can you name any fruits or vegetables? I wonder which ingredients you could add to make your colourful rainbow salad? Tell me about your design?)</p> <p>Know how to create a rainbow salad and talk about the importance of healthy eating. (What do you think about your salad? Would you add anything else or take anything away from the recipe next time? Why is it important to be healthy?)</p>	<p>Design, make, join, equipment, materials, improve, mechanisms, fruits, vegetables, healthy diet.</p>

Year 1	End points / questions	Key Vocabulary
Puppets	<p>Know a sequence of steps for construction. (How did you make your puppet? What did you use and why?)</p> <p>Know how to perform practical tasks, including cutting and joining (What ways did you try to join pieces of fabric? Which was best? Why? Why is it important to try to be neat when cutting out your puppet?)</p> <p>Know how to use a template to create a design for a puppet. (How did using a template help you to make your puppet?)</p> <p>Understand why we need to reflect on a finished product. (Tell me what you like or don't like about your</p>	<p>Design, make, join, materials, equipment, improve, fabric, safety pin, template, product.</p>
Smoothies	<p>End points / questions</p>	<p>Design, healthy, fruit, vegetable, ingredients, healthy</p>
	<p>Know and understand features of a range of existing products (Can you tell me about smoothies and fruits you tasted and which you liked best?)</p> <p>Know why we follow safety rules and use equipment correctly (How do you keep yourself safe using a knife? Can you show me how to cut with a knife? What must you do before you touch food?)</p> <p>Know if a food is a fruit or a vegetable. Learn where and how fruits and vegetables grow. (What did you put in your smoothie? Are these fruits or vegetables? Where do fruits and vegetables come from?)</p> <p>Understand strengths and weaknesses of a product. (What did your smoothie look/smell/taste like? Are you pleased with it?)</p>	<p>diet, smoothie, evaluate, peel, blend, blender.</p>
Moving Story Books	<p>End points / questions</p> <p>Understand how to design a product for a particular purpose or user (Who is your moving picture book for? Why are you making a moving picture book?)</p> <p>Know how to create a product based on their designs, using levers and sliders. (How do levers and sliders make your story book move?)</p> <p>Know how to use bridges or guides to control the movement and understand why it is important. (Why did you have to use a guide? What would happen if you didn't?)</p>	<p>Design, make, join, materials, equipment, improve mechanism, lever, slider guide, template</p>

Year 2	End points / questions	Key Vocabulary
Structures Baby Bear’s Chair	Know how to design a product for a particular purpose or user (Who was the product design for?) Know techniques for cutting and joining (How can you cut safely?) Know how to create a product based on designs (Does your product look like the one you designed?) Understand design criteria and if something has met the brief (Did you have to change your design? Why?) Know why and how to build structures that are strong and stable (How can you test whether your product is strong?)	Design, make, join, materials, equipment, improve. Design criteria, structure, product, purpose, user.
Food Healthy Wraps	End points / questions Understand which are use appropriate tools, materials and techniques (Why did you choose that tool to cut that object?) Understand safety rules and use equipment correctly (Why are safety rules important when preparing food?) Know a simple recipe and understand why we have them. (Why should you follow the steps in the right order?)	Design, vegetable, ingredients, healthy diet, equipment, Design criteria evaluate, peel, recipe, steps.
Mechanisms Moving monster	End points / questions Know why we make things in certain ways and how they are different from other products (Why did you make these monsters?, How did you make them? Is it different to when you made wraps?) Understand what mechanisms are? (Tell me how your monster works. What mechanism did you use/ Are there any other mechanisms you know of?) Understand why a plan is important and how they are used successfully (Did you create a plan for your monster? Why did you do that? What does the plan help you do?)	Design, make, join, materials, equipment, improve mechanism, lever, linkages, pivot.

Year 3	End points / questions	Key Vocabulary
<p><u>Textiles</u> <u>Cushions</u> Sewing, cross-stitch and applique</p>	<p>Understand how to do a running/cross stitch (When would use each type of stitch and why?) Know how to use applique to add a design (Why do you need to use a template when adding a design?) Know how to cut and join accurately (Why is it important to be neat and accurate when making a cushion?) Understand why evaluating a product is important. (What makes a good cushion and why?)</p>	<p>Join, materials, equipment, improve, design criteria, fabric, safety pin, template, product. Running stitch, cross stitch, applique.</p>
<p><u>Mechanical Systems</u> <u>Pneumatic Toys</u> Thumbnail sketches and exploded diagrams.</p>	<p>End points / questions</p> <p>Understand how pneumatic toys work (Can you explain how your toy moved?) Know how and why we accurately sketch a design (Why was it important to design your product first?) Know how to effectively evaluate a design. (Does your product look like your original design? Did you have to change it? Why?) Know that different types of drawings are used in design. (Why would a designer use different types of drawings of the toy they designed.)</p>	<p>Materials, equipment, improve, design criteria, mechanism, lever, pneumatic, exploded diagram.</p>
<p><u>Food</u> <u>Eating seasonally</u> <u>Vegetable Tarts</u></p>	<p>End points / questions</p> <p>Know clearly how to follow a simple recipe (Why is it useful to follow a recipe?) Understand how we select healthy ingredients (Why is it important to eat healthily?) Know why we select seasonal ingredients (What does seasonal mean?) Understand where our foods come from (Where did the ingredients in your tart come from?)</p>	<p>Vegetable, ingredients, healthy diet, equipment, Design criteria, evaluate, recipe, Seasonal, continents, healthy diet.</p>

Year 4	End points / questions	Key Vocabulary
Food – Adapting a Recipe	<p>Know how to make adaptations to a basic recipe (Why is it important to follow step-by-step instructions?)</p> <p>Know how to evaluate a given product based on a range of aesthetics (What does the biscuit smell/taste/look/feel like?)</p> <p>Know the impact of adapting a recipe (Who are your biscuits for? Why did you choose this recipe?)</p> <p>Know how to design a product to a given budget (Why do you need to budget?)</p> <p>Understand the impact of ingredients and packaging on consumers (Why is packaging/flavour important?)</p>	<p>Ingredients, equipment, Design criteria, evaluate, recipe, healthy/balanced diet, research, aesthetics, packaging, budget.</p>
Structures – Pavilions	<p>End points / questions</p> <p>Know what a frame structure is (What are frame structures used for and why?)</p> <p>Know what a pavilion is and its purpose (What is the purpose of a pavilion?)</p> <p>Know how to make a stable structure (Why does a structure need to be stable?)</p> <p>Know how to build a free-standing structure with appropriate materials (Why did you make your structure this way?)</p> <p>Know the effect of cladding on a structure (What is the purpose of cladding?)</p>	<p>Design, make, join, materials, equipment, improve. Design criteria, structure, product, purpose, evaluate, structure user, stable, pavilion, free-standing, cladding.</p>
Electrical Systems – Torches	<p>End points / questions</p> <p>Know how electrical items work (Explain how your simple circuit works?)</p> <p>Understand the features of a torch and how a torch works (Name one feature of a torch and explain how this enables the torch to work)</p> <p>Understand what is important when designing a torch (What do you need to consider when designing a torch?)</p> <p>Understand the target audience. (Who is your torch for? Why did you decide to make it look this way?)</p>	<p>Design, make, equipment, improve, design criteria, product, evaluate, purpose, feature, circuit, switch, battery, bulb, circuit, electricity.,</p>

Year 5	End points / questions	Key Vocabulary
Mechanical Systems – Automata Toys	<p>Know how to mark, saw and cut out the components and supports of their toy with a varying degree of accuracy and safety to the intended measurements. (Why do the automata frames have to be cut accurately? What will happen if they are not? Why do you use a bench hook when sawing wood? What health and safety procedures do you need to follow when using tools?)</p> <p>Understand and create a design idea with some descriptive notes. (Tell me about your exploded diagram What did you have to consider when designing a shop front?)</p> <p>Understand different cam profiles and what they are used for. (Why did you choose those cams for your design?)</p> <p>Know how to decorate and finish a product to meet the design criteria and brief. (Why did you choose to decorate your automata in this way? Was it important to cover up the mechanism? Why?)</p> <p>Understand evaluation techniques making descriptive and reflective points on function and form. (Demonstrate how your automata works? Would you change anything if you were to do this again and why?)</p>	<p>Materials, equipment, improve, design criteria, mechanism, lever, pneumatic, exploded diagram, automata, cam, clamp, dowel, drill bits, follower, frame, right angle.</p>
Food – What could be healthier?	<p>End points / questions</p> <p>Understand how beef gets from the farm to our plates. (What do the farmers do to look after the cows? What do you understand about the term ethical?)</p> <p>Understand what a 'healthy meal' means. (What would happen to our bones/teeth if we had insufficient calcium in our diet? Why is protein important for developing children?)</p> <p>Know nutritional differences between two similar recipes and give some justification as to why this is. (What will happen to the nutritional value of the recipe if you remove X? What will happen to the nutritional value of the recipe if you replace x with y? How do you know your recipe will contribute to a healthy diet for a family?)</p> <p>Know how to create an in-depth recipe to produce a healthy Bolognese sauce. (Can you explain how to make your sauce? What are the steps needed? Why have you decided that your chosen sauce is healthier?)</p>	<p>Ingredients, equipment, Design criteria, evaluate, recipe, healthy/balanced diet, ethical, nutritional value, protein, vegan vegetarian, welfare.</p>
Textiles Fastenings Create a cover for an object – book sleeve.	<p>End points / questions</p> <p>Know the features, benefits and disadvantages of a range of fastening types. (What does a fastening do? How does it fasten the two pieces? How easy is it to do up? How secure is it?)</p> <p>Know why design criteria is important and how to ensure it is met for product satisfaction. (Why have you chosen this design? What is it to be used for? What did you have to consider when designing this product? Did you look at a variety of other designs?)</p> <p>Understand the use of templates and why these need to be accurate and not rushed. (Why did you make a paper template? What is the use of a template? What may happen if you did not have a template?)</p> <p>Know a variety of stiches (Why did you choose that stitch for this product?)</p>	<p>Join, materials, equipment, improve, design criteria, fabric, safety pin, template, product, running stitch, cross stitch, applique, aesthetic, assemble, book sleeve fastening, mock-up</p>

Year 6	End points / questions	Key Vocabulary
Structures: Bridges	<p>Know how to measure and mark accurately (Why is it important to be accurate in our bridge design?) Understand a range of different shaped beamed bridges. (What is the difference between the different designs of bridges? Explain the different purposes.) Know how to use triangles to make a truss bridge. (Can you explain why this structure makes a successful bridge? What does reinforce mean and why is this important?) Understand how to evaluate, adapt and improve a bridge structure. (How and why is it important to adapt your bridge structure? What makes a successful bridge and why?)</p>	<p>Design, make, join, materials, equipment, improve, design criteria, structure, product, purpose, evaluate, user, stable, pavilion, free-standing, cladding, aesthetics, beam/truss/arch bridge, reinforce, rigid, joints, accurately.</p>
Food: Come dine with me	<p>End points / questions</p> <p>Understand how to research and design a three course meal (What are the key components of a 3 course meal?) Know how to prepare a meal using a recipe (Why is it useful to follow a recipe?) Understand where food comes from (Where do *3 key foods in your recipe* come from?) Know why and how to work safely and hygienically with independence. (What health and safety rules did you follow and why? Why is it important to wash the fruit and vegetables? How did you avoid cross-contamination and why is this important?)</p>	<p>bridge method cross-contamination farm to fork preparation, components</p> <p>Ingredients, equipment, fruit, vegetable, design criteria, evaluate, recipe, healthy/balanced diet, nutritional, protein, bridge, method, cross - contamination farm to fork, preparation.</p>
Electrical systems: Steady hand game	<p>End points / questions</p> <p>Know how to research and analyse a range of children’s toys (What is the purpose of a toy?) Understand how to create a steady hand game (What is a steady hand game?) Know how to construct a stable base (Why does it need to be stable?) Understand and explain how to assemble electronics to complete electronic game (What are the key components of the electrical circuit?)</p>	<p>Design, make, equipment, improve, design criteria, product, evaluate, purpose, feature, circuit, switch, battery, bulb, circuit, electricity, stable, purpose, assemble, bulb-holder, buzzer, symbol component,conductor, copper, insulator.</p>