STANLEY GROVE ACADEMY

DESIGN TECHNOLOGY CONCEPT MAP

Ready for school. Ready for life

Our Design and Technology curriculum has been designed using the 3 concepts taught progressively in each year group from Year 1 to Year 6.

STRUCTURES	TEXTILES	FOOD

Substantive Concepts (Theoretical Knowledge)

Designers and Good Design	Product Development and Marketing	Testing and Evaluating

Disciplinary Concepts (Practical Skills)

Joining Techniques	Cutting and Shaping Techniques	Strengthening Techniques	Mechanisms	Designing and using Templates	Selecting materials and ingredients	Food Preparation

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Structures					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Design and make a moving picture -Levers	**Design and make a moving vehicle -Wheels and Axles:**	**Design and make a strong structure that holds its shape freestanding frame:**	**Design and make a lighthouse using an electrical system**	**Design and make a system to lift a load using pulleys and gears:**	**Design and make a product for a child that moves using cams, gears and cogs:(toy)**
Make a simple lever mechanism. Joining with split pins. Cutting card and paper with scissors	Making an simple axle mechanism. Joining with glue guns with support. Cutting and shaping card and paper with scissors. Strengthen structures with layering.	Joining with glue guns independently. Cutting and shaping wood with saws with support or scissors with strong card/ paper. Strengthen structures with mitre joints.	Joining parts using gluing techniques, linking techniques and stapling. Cutting and shaping technical card from a template and net that they have created. Strengthen structure using the precision of the original net and mitre joints.	Design and shaping pulleys and gears testing with prototypes. Creating their own nets to join with a variety of joining techniques. Selecting how to strengthen the structure using a variety of previously taught techniques. Cutting using a variety of simple saws and tools. Finishing using files and shaping tools.	Design and shape using pulleys and gears testing with prototypes. Creating their own nets to join with a variety of joining techniques. Selecting how strengthen structure using a variety of previously taught techniques. Cutting using a variety of simple saws and tools. Finishing using files and shaping tools.

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Textiles					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Designing and make a flat textile toy	**Design and make a range of textile puppets**	**Design and make a textile decoration**	**Design and make a book sleeve with a fastening**	**Design and make a textile product (bag for life) that can bear weight and is sustainable and durable**	**Eco Fashion/Upcycled Clothing Item** **Redesign and repurpose an old t-shirt or pair of jeans into a functional product (e.g., tote bag, apron, phone case, pouch)**
Joining using glue. Cutting Fabric with scissors	Joining using glue, tying, stapling. Cutting Fabric with scissors with greater precision	Join using running stitch and cross stitch, Cut using a template and scissors with precision	Join using weaving techniques, Cut wool or fabrics, or paper using scissors with precision. Cutting paper and card to create a base.	Create a template to ensure the design is precise. Use a range of techniques to join the materials and fabrics that they use considering their appropriateness. Cutting fabrics chosen with increased precision, selecting the most appropriate method to achieve a good finish.	Designing for user needs, sustainability, and specific purposes. Choosing materials based on texture, strength, eco-friendliness. Independent use of templates with seam allowance and accuracy. Consolidating previous knowledge from other year groups e,g, seams/ stitching. **critical thinking**, sustainability, and creative re-use Encourages decision-making and customisation. Incorporates measuring, precision cutting, and stitching for strength.

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Food					
Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Design and make a healthy smoothie	**Design and make a cold dish using healthy seasonal ingredients: e.g. salad**	**Design and make a cooked product from raw ingredients (bread)**	**Design and make a healthy cooked product from raw ingredients (Welly to Belly): baked pasta dish.**	**Design and make a healthy cooked product from raw ingredients (Welly to Belly): Carrot muffins**	**Design and make a healthy cooked product from raw ingredients (Welly to Belly): Roasted/ Baked foods and soup**
Cutting soft fruit/veg with knives pushing down force	Cutting a range of harder fruit/veg with knives with a range of techniques and increased precision.	Weighing and measuring ingredients, combining ingredients using a range of methods including mixing and kneading, baking using an oven with support.	Selecting the ingredients to grow for the project. Weighing and measuring and preparing ingredients Combining ingredients using a range of methods including considering flavour. Cooking for a purpose / audience.	Selecting the ingredients to grow for the project. Weighing and measuring and preparing ingredients using peelers. Combining ingredients using a range of methods including considering flavour. Cutting using the bridge technique. Baking for a purpose / audience.	Selecting the ingredients to grow for the project. Weighing and measuring and preparing ingredients using peelers. Combining ingredients using a range of methods including considering flavour. Cutting using the bridge technique. Using mashing and blending for soups. Roasting for a purpose / audience

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Year 1			
Theme	**STRUCTURE** **Design and make a moving picture - levers**	**TEXTILE** **Designing and make a textile toy**	**FOOD** **Design and make a healthy smoothie**
Designers and Good Design	To look at pictures of different moving pictures and talk about what they like and dislike.	To explore what makes a cuddly toy appealing and comforting for children.	To identify appealing fruit combinations for a smoothie.
Product Development and Marketing	To create a criteria list of what their product needs to be/do	To design a soft toy based on the needs of a reception child (As a class, compile some questions to ask the reception class on preferences	To design a smoothie with colours and flavours that appeal to Year 1. To understand the role of food and staying healthy.
Testing and Evaluating	To talk about their own work and other's work. What do they find works well?	To verbally or simply record evaluating their toy by identifying what worked well and what they would improve.	To taste their smoothie and describe its texture, flavour, and appearance
Joining Techniques	To join with split pins.	To join with glue.	
Cutting and Shaping Techniques	Cutting card and paper with scissors.	To cut fabric with scissors, with support.	
Strengthening Techniques	To fold card to make the background stronger so it holds the moving part in place.	To reinforce any flappy ears or limbs using extra layers or card backing.	
Mechanisms	To make a simple lever mechanism.		
Designing and using Templates	To use a design sheet to draw your design based on the design criteria.	To use a design sheet to draw design based on the design criteria. To use a card template provided to create their desired shape.	To use a design sheet to draw design based on the design criteria.

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Year 1			
Theme	**STRUCTURE** **Design and make a moving picture - levers**	**TEXTILE** **Designing and make a textile toy**	**FOOD** **Design and make a healthy smoothie**
Selecting materials and ingredients	To discuss and choose the materials that would work best. (Choose stiffer card for background and moving parts and explore which paper types slide easily or fold without tearing).	To select soft, comfortable fabrics like felt or fleece. To consider colour and texture for appeal and comfort.	To select fruits based on taste, texture (e.g., juicy or creamy), and colour. Begin to explain why they chose certain fruits (e.g. it is sweet or sour).
Key Vocabulary	**Design, split spins, lever, mechanism, design, product**	**Fabric, cutting, join, template, traditional**	**Cut, wash, taste, texture, flavour,**

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Year 2			
Theme	**STRUCTURE** **Design and make a moving vehicle (wheels and axles)**	**TEXTILE** **Design and make a range of textile puppets**	**FOOD** **Design and make a cold dish using healthy seasonal ingredients: e.g. salad**
Designers and Good Design	To look at the structure and design of moving vehicles. Discuss what will be needed to make functional (movement)	To explore different puppets and discuss which designs are most effective and why.	Understand which fruits/veg are seasonal
Product Development and Marketing	To design a functional, appealing vehicle for themselves.	Create toy puppet for yourself based on your preferences. Use the range of puppets seen to help develop your product choice e.g. pop up, glove or finger. Link to a story which they can act out once puppets have been made.	Design a fruit/veg snack based on colour, taste, and texture.
Testing and Evaluating	Test if your wheels/axles move freely prior to fixing to vehicle.	To test the strength and comfort of their puppet and evaluate based on function. Evaluate- what worked/didn't.	Taste combinations and explain what they liked/ disliked.
Joining Techniques	To join with glue guns, with support.	Joining using glue, tying, stapling,	
Cutting and Shaping Techniques	To cut and shape card and paper with scissors.	To cut fabric with scissors with greater precision.	To cut a range of harder fruit/veg with knives with a range of techniques. Use bridge or claw grip with support.
Strengthening Techniques	To strengthen structures with layering.	Layer or fold fabric in areas that could tear (e.g. mouth, arms).	
Mechanisms	To make a simple axle mechanism.	If choosing pop up, use a slider to create smooth movement.	

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Year 2			
Theme	**STRUCTURE** **Design and make a moving vehicle (wheels and axles)**	**TEXTILE** **Design and make a range of textile puppets**	**FOOD** **Design and make a cold dish using healthy seasonal ingredients: e.g. salad**
Designing and using Templates	To use a design sheet to draw different designs based on the design criteria and inspired by pictures of a range of moving vehicles.	Cut along pencil lines (templates created by them) accurately with scissors. To use a design sheet to draw at least two different designs based on the design criteria.	To use a design sheet to draw at least two different designs based on the design criteria.
Selecting materials and ingredients	To select materials based on testing.	To select materials, appropriate for their choice of puppet and desired outcome. (Think about colour, feel, and safety).	Choose safe, fresh ingredients for their colour and taste.
Food prep			Wash, peel, slice using safe techniques, support where needed.
Key Vocabulary	**Axel, wheels, mechanism, strengthen, layering, structure**	**Joining, tying, stapling, design, finger, glove, popup puppets**	**Peel, slice, seasonal, combinations**

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Year 3

Theme	STRUCTURE **Design and make a strong structure that holds its shape (picture frame)**	TEXTILE **Design and make a textile decoration**	FOOD **Design and make a cooked product from raw ingredients (bread)**
Designers and Good Design	To explore different frame designs and identify which shapes and materials contribute to strength and stability. To understand the purpose of a structure and evaluate what makes it both functional and attractive.	To explore how designers create decorative items with both function and visual appeal. To recognise that decoration can reflect culture, purpose, and theme.	To explore the features of different types of bread (shape, texture, crust, flavour, flat bread, wrapping etc.
Product Development and Marketing	To consider the needs of the user (e.g. to display a photo or drawing). To design a free-standing frame that suits its intended use and style preferences. To record ideas in a design booklet with sketches and annotations.	To design a textile product that suits a celebration/ theme e.g Christmas Decoration, seasonal theme etc.	To design a simple bread product that meets audience needs or preferences (Ask an adult or child their preferences using a questionnaire with own guided questions e.g. choices of flavour)
Testing and Evaluating	To investigate how natural materials, recycled products, or simple woodwork have been used historically in frame-making. To explore decorative frame styles (e.g., Victorian, geometric, rustic) for inspiration	To test stitch on scrap fabric before final product. To evaluate whether the finished decoration meets the brief. Reflect on what they'd improve next time	To test different shaping or scoring techniques on dough. To evaluate the outcome, include what went well and improvements based on outcome and peer feedback.
Joining Techniques	Joining with glue guns independently	Join using running stitch and cross stitch.	
Cutting and Shaping Techniques	Cutting and shaping wood/card with Saws(supported) or scissors.	Cut using a template and scissors with precision.	To mix and knead ingredients with control. To use safe cutting tools for dividing dough portions evenly.
Strengthening Techniques	Strengthen structures with mitre joints.	To use stitching or layering of fabric enabled decoration to hang.	To recognise how under- or overworking affects bread strength and softness.

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DESIGN TECHNOLOGY CONCEPT MAP

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Year 3			
Theme	**STRUCTURE** **Design and make a strong structure that holds its shape (picture frame)**	**TEXTILE** **Design and make a textile decoration**	**FOOD** **Design and make a cooked product from raw ingredients (bread)**
Designing and using Templates	To explore their ideas through multiple drawings/ designs. To measure and draw accurately for frame parts, using a ruler. To test templates before cutting final materials.	To draw and use a simple symmetrical template to cut matching front/back fabric pieces. To refine their design before final cutting by prototyping on paper or scrap fabric.	To shape bread using cutters or rolling to consistent thickness or pattern. To sketch design bread according to questionnaire results.
Selecting materials and ingredients	To choose materials (e.g,card, wood, decoration based on strength, weight, stability and style.	To select fabric, thread, and embellishments based on texture, suitability, and appearance. Consider both decoration and durability.	To choose ingredients for taste, texture, or dietary need (according to questionnaire) To understand the role of yeast, flour, and salt in making bread.
Food prep			Weighing and measuring ingredients, combining ingredients using a range of methods including mixing and kneading, proving, baking using an oven with support
Key Vocabulary	**Stable, mitre joint, design brief, evaluate, annotate, template, reinforce,**	**Decoration, running stitch, embellish, pattern, template, reinforce, evaluate, durable, cross stitch**	**Knead, prove, rise, dough, yeast, , bake**

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Year 4			
Theme	**STRUCTURE** **Design and make a lighthouse including an electrical circuit. (individual or group project)**	**TEXTILE** **Design and make a book sleeve with a fastening.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): baked pasta dish**
Designers and Good Design	Look at a range of lighthouses structures. Use knowledge of stable structures used for photo frames, to support the design of a structure to form your lighthouse.	To explore how functional textile items like are designed with structure, fastening, and decoration.	To explore examples of healthy cooked meals or snacks and identify the features that make them nutritious and appealing. To understand how foods are designed for particular audiences (e.g. athletes, children, vegetarians).
Product Development and Marketing	Make a toy for a younger child so look at methods to strengthen your design and that the design is colourful and attractive.	To design a book sleeve for a specific user, considering size, style, purpose e.g. keeping book safe	To cook for a purpose / audience and adapt their meal to meet needs of audience. E.g texture, and nutritional value based on the target user (e.g. school snack, family meal).
Testing and Evaluating	To test strength of lighthouse structure and that it is steady when stood up. Text lighting circuit prior to fixing in lighthouse structure. To identify specific points of success and failure and adapt the design accordingly before making. Use peer feedback to support this process.	To test techniques before applying to the final product. To adapt designs based on feedback from peers and testers. To evaluate strength, usability, and visual appearance of the sleeve, using criteria	Evaluate if ingredient combinations worked.

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Year 4			
Theme	**STRUCTURE** **Design and make a lighthouse including an electrical circuit. (individual or group project)**	**TEXTILE** **Design and make a book sleeve with a fastening.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): baked pasta dish**
Joining Techniques	Joining parts using gluing techniques, mitre joints,	Backstitch or double stitching Sew a button or velcro on.	Combining ingredients using a range of methods including considering flavour. e.g wet and dry mixture
Cutting and Shaping Techniques	Cutting and shaping technical card from a template and net that they have created for top of lighthouse Sawing for main wooden structure. Cutting using a variety of simple saws and tools. Finishing using files and shaping tools. To measure and cut accurate lengths.	Cut fabrics with precision.	To confidently use the bridge and claw grip to safely cut fruits, vegetables, or other ingredients. Grating cheese
Strengthening Techniques	Mitre joints and wooden joins.	If using fabric, use previous Y3 stitching knowledge plus backstitch or double stitching to join fabric for increased stability, To apply fastening techniques or embellishments securely and neatly, choosing appropriate way to do this according to materials.	
Mechanisms		To incorporate a functional closure mechanism such as a flap or button.	
Designing and using Templates	To cut and shape technical card from a template and net that they have created. Use template for size of lighthouse being made. To present annotated sketches and consider adjustments after peer feedback.	To annotate drawings with planned weaving colours/ patterns, fastening methods, and stitch types. Use a pinned template to accurately cut any fabric or materials where necessary	

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Year 4			
Theme	**STRUCTURE** **Design and make a lighthouse including an electrical circuit. (individual or group project)**	**TEXTILE** **Design and make a book sleeve with a fastening.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): baked pasta dish**
Selecting materials and ingredients	To choose appropriate materials (e.g., wood, thick card or techcard, circuits) based on their properties.	To select appropriate fabric types. To choose threads or fasteners based on function and visual appeal.	Selecting the ingredients to grow for the project. To select ingredients based on **flavour pairing (after research and taste tests)**, and **seasonal availability.**
Food prep			Weighing and measuring and preparing ingredients using peelers, graters etc. To follow hygiene rules and clean work area throughout. To cook ingredients.
Key Vocabulary	**Circuit, stable, mitre joint, evaluate, template, reinforce, crocodile clips, bulb, switch**	**backstitch, double stitching, fastener, secure, durable, functional, textile**	**balanced diet, healthy, savoury, seasonal, portion, hygiene,**

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DESIGN TECHNOLOGY CONCEPT MAP

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Year 5			
Theme	**STRUCTURE** **Design and make a system to lift a load using pulleys and gears)**	**TEXTILE** **Design and make a textile product that can bear weight and is sustainable and durable: bag for life.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): Carrot Muffin**
Designers and Good Design	To explore how engineers and designers create systems to lift and move heavy objects (e.g, cranes, lifts, wells).	To explore how designers make everyday textile products like bags fit for purpose (e.g. shopping, storage, carrying). To analyse bags made from different materials and consider which features support strength and sustainability.	To analyse how meals are designed to meet different dietary needs (e.g. vegetarian, high-protein).
Product Development and Marketing	To design a lifting system for a specific purpose (e.g. lifting weight safely). To refine ideas through peer feedback and early testing.	To design a bag that is appropriate for its user and intended weight or purpose (e.g., book bag, PE kit, shopping).	Look at different recipes for carrot muffins and identify ones to try and state why.
Testing and Evaluating	Designing and shaping pulleys and gears testing with prototypes. To test gear or pulley systems for smoothness, strength, and ease of use. To assess whether the system lifts the load as intended. To reflect on success of mechanical function and suggest improvements.	To test joins and straps for strength under load and evaluate effectiveness. To reflect on functionality, durability, and sustainability of the final product. To suggest refinements based on user testing.	To taste and refine seasoning. To collect structured feedback and suggest final improvements.

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DESIGN TECHNOLOGY CONCEPT MAP

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Year 5			
Theme	**STRUCTURE** **Design and make a system to lift a load using pulleys and gears)**	**TEXTILE** **Design and make a textile product that can bear weight and is sustainable and durable: bag for life.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): Carrot Muffin**
Joining Techniques		Use a range of techniques to join the materials and fabrics that they use considering their appropriateness.	Combining ingredients using a range of methods including considering flavour.
Cutting and Shaping Techniques		Cutting fabrics chosen with increased precision, selecting the most appropriate method to achieve a good finish. To measure and cut fabric panels accurately, using templates and rulers.	Safely use a peeler and grater for carrot preparation.
Strengthening Techniques	Selecting how strengthen structure using a variety of previously taught techniques. To ensure components rotate or move freely without friction where needed.	To reinforce high-stress areas (e.g. strap joins, base corners, hems, linings) with extra stitching or fabric layers to increase product durability.	
Mechanisms	To construct a **pulley system** that lifts a load vertically.		
Designing and using Templates	To communicate mechanism design clearly using annotated diagrams. To draw measured plans for support frames, gears, or pulley holders.	Create a template to ensure the design is precise. To consider the environmental impact of material choices and communicate these in their design. To adapt designs after peer feedback or testing for strength and ease of use.	

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DESIGN TECHNOLOGY CONCEPT MAP

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Year 5			
Theme	**STRUCTURE** **Design and make a system to lift a load using pulleys and gears)**	**TEXTILE** **Design and make a textile product that can bear weight and is sustainable and durable: bag for life.**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): Carrot Muffin**
Selecting materials and ingredients	To select strong, smooth materials (e.g., string, dowels, card, wood) based on purpose in the system. To justify material choice for efficiency and ease of motion, load it can carry etc	To select fabric based on strength, flexibility, sustainability, and availability (e.g., canvas, denim, recycled cotton).	Selecting the ingredients to grow for the project. To evaluate ingredients for nutrition, affordability, sustainability, and target audience.
Food prep			Weighing and measuring and preparing ingredients using peelers/graters. To prepare and bake savoury muffins To manage time, hygiene, and presentation confidently.
Key Vocabulary	**Pulley, gear, rotate, tension, load, lift, mechanism, gear ratio, smooth motion, friction, brace**	**Durable, sustainable, load-bearing, join, seam, reinforced, strap, upcycle, eco-design, strength test, textile, eco friendly**	**Seasoning, presentation, audience, market research, dietary needs.**

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DESIGN TECHNOLOGY CONCEPT MAP

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Year 6			
Theme	**STRUCTURE** **Design and make a product for a child that moves using cams, gears and cogs: (moving toy for a child – group topic)**	**TEXTILE** **Eco Fashion / Upcycled Clothing Item** **Redesign and repurpose an old t-shirt or pair of jeans into a functional product (e.g. tote bag, apron, phone case, pouch)**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): soups**
Designers and Good Design	To analyse how designers create toys that include movement to engage users (e.g. mechanical books, moving teddies) To explore how aesthetics and functionality are balanced in products for children.	To investigate how designers, use upcycling and sustainability in fashion (e.g. Vivienne Westwood, Patagonia, local eco-brands). To evaluate existing upcycled products for creativity, durability, and environmental impact.	To explore how chefs plan balanced meals that meet specific dietary or seasonal needs. To evaluate a range of soups for nutritional value, flavour, and texture for the target user (e.g. school children, family).
Product Development and Marketing	To design a product that uses cams or gears to create a movement appropriate for a specific user (e.g. a child aged 4–6).	To design a new functional product from an old garment, considering usability, target audience, and environmental impact. To communicate ideas clearly using sketches, fabric samples, stitching choices, and layout plans.	To design a healthy, savoury soup that uses home-grown or seasonal ingredients. To justify ingredient combinations based on taste, appearance, and needs of audience. Produce a recipe card to take home.
Testing and Evaluating	To develop and adapt design ideas after peer testing and early prototypes	To test different parts of old garments for strength, stretch, and sewing compatibility. (looking at different materials) before deciding on which to use for final product. To evaluate final product performance and appearance. To assess sustainability and waste reduction as part of their evaluation.	To evaluate the final dish for flavour, texture, presentation, and health benefits. To collect structured peer and user feedback to suggest refinements (e.g. a tasting panel or survey).

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Year 6			
Theme	**STRUCTURE** **Design and make a product for a child that moves using cams, gears and cogs: (moving toy for a child – group topic)**	**TEXTILE** **Eco Fashion / Upcycled Clothing Item** **Redesign and repurpose an old t-shirt or pair of jeans into a functional product (e.g. tote bag, apron, phone case, pouch)**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): soups**
Joining Techniques	Creating their own nets to join with a variety of joining techniques.	Adapt previous knowledge where appropriate. E.g. backstitch for strength and finish, hemming or layering edges for durability,	Combining ingredients using a range of methods including considering flavour.
Cutting and Shaping Techniques	Cutting using a variety of simple saws and tools. Finishing using files and shaping tools	To deconstruct clothing (e.g. cut along seams, unpick stitching) to recover usable fabric. To accurately cut shapes from curved or textured surfaces using templates and fabric scissors.	To apply the bridge and claw grip confidently to prepare a wide range of ingredients. To portion and shape ingredients for visual appeal.
Strengthening Techniques	Selecting how to strengthen structure using a variety of previously taught techniques	To reinforce seams, or corners using layering and stitching. Use critical thinking and decision making to evaluate stress points and apply structural support where needed.	
Mechanisms	To construct a working cam system with rotating axles that lifts or moves an element.	To incorporate closure mechanisms e.g. buttons.	
Designing and using Templates	To annotate diagrams showing moving parts, materials, safety features, and visual design. To test individual components (cams, gears) before putting together final product. To evaluate how well the final product moves, engagement level and structure stability – refine ideas to show improvements after use.	To adapt templates based on original garment size and desired final shape. E.g. how much fabric do they have? If it is folded to attach to pieces more fabric will be needed. (seam allowance)	To lay out a step-by-step plan for preparing, cooking, and plating a dish.

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Year 6			
Theme	**STRUCTURE** **Design and make a product for a child that moves using cams, gears and cogs: (moving toy for a child – group topic)**	**TEXTILE** **Eco Fashion / Upcycled Clothing Item** **Redesign and repurpose an old t-shirt or pair of jeans into a functional product (e.g. tote bag, apron, phone case, pouch)**	**FOOD** **Design and make a healthy cooked product from raw ingredients (Welly to Belly): soups**
Selecting materials and ingredients	To select materials e,g, wood, dowel, plastic tubing, and card based on mechanical function (e.g. friction, strength, flexibility). To explain how material choice affects ease of movement and longevity.	To evaluate and select recycled materials based on thickness, stretch, structure, durability and appearance. To consider environmental impact.	Selecting the ingredients to grow for the project. To select ingredients for audience, seasonality, health and flavour. Consider alternatives for allergies etc. To understand how combining ingredients in specific sequences affects structure (e.g., thickening soup, roasting before blending).
Food prep			Weighing and measuring and preparing ingredients using peelers. To confidently boil, roast, fry, or grill ingredients with correct supervision. To combine techniques in a single dish (e.g. roast + blend = soup). To season and serve food hygienically, with good presentation.
Key Vocabulary	**Cam, crank, rotation, linear motion, gear, cog, friction, mechanism, automate, evaluate**	**Upcycle, eco-fashion, sustainable, garment, repurpose, seam allowance, embellish, structure, durability, environmental impact**	**Recipe, seasonality, garnish, roast, blend,**