



Skills and Vocabulary Progression Grid: DT

	EYFS	KS1	LKS2	UKS2
Structures	To make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. (Expressive Arts & Design) clay diwali lamps	<ul style="list-style-type: none"> * Identify and describe the purpose of structures. * Turn 2D nets into 3D structures. * Learn that the shape of materials can be changed to improve the strength and stiffness of structures. Understand that cylinders are a strong kind of structure. *Identify natural and man-made structures. * Build strong and stiff structures by folding paper. 	<ul style="list-style-type: none"> * Identify the structural features and material of a 3D building, considering weight, compression and tension. * Explore the stability of structures. * Understand the difference between frame and shell structure. * Identify shell structures in everyday life (cars, aeroplanes, tin cans.) * Use knowledge of frame and shell structure when designing and making. * Develop knowledge of net structures * Identify the aesthetics of structures. 	<ul style="list-style-type: none"> * Explore how to create a strong beam. * Identify arch and beam bridges and explain how they work. *Identifying stronger and weaker structures. *Exploring different ways to reinforce structures including the use of triangles. * Articulate the difference between beam, arch and truss. * Identify bridges in the local area and world famous bridges. *Create a bridge structure.
Structures Vocabulary Progression	mould, smooth,	Strength Stiffness Stability	Structure Tie Span Weight Stability Frame Shell Base Legs	Beam Arch Bridge Compression Tension Reinforce Truss Suspension Bridge
Mechanisms	split pins create collaboratively, sharing ideas, resources and skills. techniques for joining materials, such as how to use adhesive tape and different sorts of glue. Provide children with a range of materials for children to construct with - discuss problems and how they might be solved (Development Matters)	<ul style="list-style-type: none"> *Know that levers and sliders can make things move. * Identify if something uses a lever or a slider. *Determine what movement something will make. *Know that a collection of moving parts work together in a machine. *Identify levers and sliders in everyday objects. *Know that a lever is something that turns a pivot. *Identify the parts of a wheel. *Know how axels help wheels to move a vehicle. *Understand that axles are used in structures and help to make parts turn a circle. 	<ul style="list-style-type: none"> *Know that mechanisms are a system of parts that work together to create motion, *Know that pneumatic systems force air over a distance to create movement. * Describe motion of movement dependent on the system used. *Explain how a pneumatic system works. Use knowledge of pneumatic systems to design and make mechanisms. 	<ul style="list-style-type: none"> *Know that input is the motion used to start a mechanism. *Know that output is the motion that happens as a result of starting the input. *Describe how mechanisms can be used to change one motion into another. *Identify combinations of mechanisms that create different movements. *Explore cams, learning that different shaped cams produce different follower movements. *Explore types of motions and direction of a motion. *Use knowledge of cams/ levers, pulleys and gears to create a product with a variety of motions.
Mechanisms Vocabulary Progression		Up Down Left	Motion Mechanisms Pneumatic	Output Input Control



		Right Vertical Pivot Horizontal Wheels Vehicles Axles	Force Distance System Movement	Cams Direction
Textiles	Join different materials and explore different textures Weaving Paper (nursery) Weaving Kit (reception)	*Identify and use different ways to join fabric. *Understand the benefits of glueing/stitching to join fabrics. *Thread a large eye needle. *Use a running stitch. *Cut fabrics using a template.	*Thread needles with greater independence. *Sew cross stitch and applique. Understand that fabrics can be layered for effect. *Understand that there are different types of fastenings and what they are. *Articulate the benefits and disadvantages of the different types of fastenings.	*Create and use a pattern. *Accurately use back stitch *Thread needles independently. *Learn different decorative stitches *Embellish products with a range of materials to suit a design brief. *Apply a range of sewing techniques to create a product.
Textiles Vocabulary Progression	Weave	Fabric Sew Needle Stitch Cut Glue Staple Finish Thread Running stitch Template	Pin Tie Knots Cross Stitch Fastenings	Threading Pattern Seam allowance Embellish Back Stitch
Electrical Systems	N/a	N/a	*Explain how electrical items work. *Identify electrical products. *Use electrical components according to their functional properties and aesthetic qualities. *Understand and use electrical systems to design and make products for a purpose (to emit light, to create movement)	conductors & insulators series vs parallel electromagnetic motors battery safety computer controlled products
Electrical Systems Vocabulary Progression	N/a	N/a	static electricity repulsion conductors insulators battery power torch positives negatives	components functioning circuit series parallel electromagnetic acid magnetic motor generator



<p>Food & Nutrition</p>	<p>healthy eating - sorting healthy and unhealthy food - The Hungry Caterpillar</p>	<ul style="list-style-type: none"> *Understanding the difference between fruits and vegetables. *Describing and grouping fruits by texture and taste. *Understanding what makes a balanced diet. *Knowing where to find the nutritional information on packaging. *Knowing the five food groups. 	<ul style="list-style-type: none"> *Know that climate affects food growth. *Use cooking equipment safely and hygienically. *Know the importance of how to use, store and clean a knife safely. *Know that vegetables and fruit grow in certain seasons. *Know that each fruit and vegetable give us nutritional benefits. *Experience the taste of a wide variety of local, regional and world foods. *Develop a knowledge of local produce and suppliers. *Know the impact of the cost and importance of budgeting while planning ingredients for a recipe. *Know where imported foods travel from. 	<ul style="list-style-type: none"> *Understand where food comes from including types of meat, dairy products, rice and pasta, flour and other manufactured goods. *Explain the journey of an ingredient from farm to fork. *Adapt a recipe/weekly meal planner to make it healthier. *Compare two adapted recipes using a nutritional calculator and then identify the healthier option. *Learn how to research a recipe by ingredient. *Recording the relevant ingredients and equipment needed for a recipe. *Understanding the combinations of food that will complement one another. *Understand the importance of cutting down food waste. *Identify recipes which use leftover ingredients. *Understand the importance of safe food storage and the techniques used for different foods.
<p>Food & Nutrition Vocabulary Progression</p>		<p>hygiene texture taste varied/balanced diet nutrition healthy packaging portion sugar five food groups - proteins, carbohydrates, fruit and vegetables, dairy, fats and oils.</p>	<p>climate equipment safety hygiene import export environment impact seasons benefits cost budget ingredients</p>	<p>reared processed beef cattle pork lamb recipe adapt nutritional calculator ingredients equipment combinations complement</p>