

Subject: Food – Fruit salad		Year Group: 1			Term: Autumn		
							
Vocabulary		Knowledge What children will know			Understanding What children will understand		
Define the word and include etymology if useful		Learning	Teaching	Assessment	Learning	Teaching	Assessment
		Remembering	Telling	Testing	Practising	Coaching	Observing
Fruit – any edible product of plant growth useful to humans or animals Healthy – enjoying good health Ingredients – Latin (stem of ingrediens) something that enters as an element into a mixture Recipe – Latin (recipere) a set of instructions for making or preparing a food dish Peel/peeler – to strip of its skin/rind Slice – Old French (esclicer – to split up) a thin, flat piece cut from something Vegetable – Latin (vegetabilis – able to live and grow) any plant whose parts are used as food Knife – an instrument for cutting Grate – product of grating Grater - an instrument for grating Chop – product of chopping Hygiene – practice to preserve health		How to look at cookery books of different chefs and countries, finding ones they would like to eat. How to explain objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Testing how food products have been created. How to cut, peel or grate ingredients safely and hygienically. To use scales or measuring cups, measure or weigh food items with a general accuracy. Assemble or cook healthy ingredients.			Understand where food comes from and be able to discuss the cycle of food production. Understand which foods are grown and which are produced. Observe how food items are made and be able to copy the techniques modelled. Understand that food must be prepared safely and hygienically and be able to explain the reasons why. Practise how to use a knife, grater and peeler safely, knowing the reasons why, observing how to listen to instructions. Understand the difference between healthy and unhealthy. Compare and contrast the taste, appearance and packaging of differently prepared healthy snacks.		
					Skills What children will be able to do		
		Learning	Teaching	Assessment	Learning	Teaching	Assessment
		Reflecting	Facilitating	Evaluating	Reflecting	Facilitating	Evaluating
					Find a recipe in a cookbook or using an internet search. Identify ingredients that can be classed as healthy and unhealthy. Create a template example of a healthy/unhealthy dish. Group ingredients to show which ones are grown and which ones are produced. Use a knife, grater and peeler safely and reflect on why it is important. Measure ingredients using a scale and measuring cups/teaspoons/tablespoons.		

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Subject: Boats		Year Group: 1			Term: Spring				
									
Vocabulary		Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do	
Define the word and include etymology if useful	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Float: To float means to stay on the surface of the water without sinking, like a balloon floating in the air. Sink: To sink means to go down into the water or any other liquid, like when a heavy object drops to the bottom of a pool. Buoyant: Buoyant means something that can float easily on water because it is light or has air trapped inside it, like a rubber duck. Boat: A boat is a vehicle that floats on water and is used for transportation or for fun on the sea, rivers, or lakes. Waterproof: Waterproof means something that is made to keep water out, like a raincoat or umbrella that doesn't let water pass through it.	Know which materials sink and float. Know that a boat needs to be buoyant to be able to float. Explore and evaluate a range of existing boat toys/models. Know the features of a boat design. Know basic shapes such as: • Canoes • Sailboats • Speedboats Know that propulsion leads to movement.			Understand the design brief for making a boat. Understand the concept of flotation. Understand why some materials are waterproof. Understand how to join materials.			Evaluate their own ideas and products against a design criteria. Compare and contrast the suitability of different shaped boats. Select appropriate materials for making a boat. Include sails, oars, propellers and other features in their design.		

Subject: Levers and sliders – Moving seaside pictures			Year Group: 1			Term: Summer					
											
Vocabulary			Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful			Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
			Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Lever – a simple machine that helps you lift or move something using a bar or a stick that turns around a point called a fulcrum Fulcrum – the point around which a lever turns Effort – the force you use to move the lever Load – the thing you are trying to lift or move with the lever Slider – a simple mechanism that moves back and forth			Know levers and sliders are simple mechanisms that help us move things with less effort. Know that levers have a fulcrum, which is the point around which the lever turns. Know how to identify likes and dislikes of the designs Suggest improvements to existing designs Explore how products have been created by taking things apart Use 2Design on Purple Mash Measure and mark out to the nearest centimetre. Explain to someone else how a product works and how it can be improved.			Understand that force must be applied to make the load move. The basic concepts of force, push and pull. Understand how levers and sliders are used in real life: seesaws, coat zips, doorknobs etc.			Follow simple instructions for how to assemble and use levers and sliders. Be able to lift objects of varying weights with levers. Safely manipulate small parts of mechanisms. Safely use tools like scissors, pencils and a ruler. Fold paper/card carefully and accurately. Join materials together using appropriate resources. Think critically about what type of slider or lever will be best for the task in hand.		

Subject: Sock Puppets		Year Group: 2			Term: Autumn		
							
Vocabulary		Knowledge What children will know			Understanding What children will understand		
Define the word and include etymology if useful		Learning	Teaching	Assessment	Learning	Teaching	Assessment
		Remembering	Telling	Testing	Practising	Coaching	Observing
Puppet: A puppet is a special toy or doll that you can move and make talk by putting your hand or fingers inside it. Stitch: A stitch is a small loop or knot made by sewing with a needle and thread to join two pieces of fabric together. Thread: Thread is a thin string-like material made of cotton, nylon, or other materials that is used for sewing or weaving. Product: A product is something that is made or created by someone, like a toy, a book, or a piece of artwork. Components: Components are the different parts or pieces that come together to make something, like the wheels, body, and engine of a toy car.		Know what a puppet is and how it is used. Know how to use a running stitch, thread and needle. Know how to use needles, threads and scissors safely. Know the purpose of their product. Know how products can be improved.			Discuss and explore a range of puppets, their features, what materials are used and what they are used for. Understand how to put different components together. Discuss their finished product and evaluate what is effective about it. Understand how to follow a set of design instructions.		
					Choose an existing product they like and explain why. Recognise and describe a variety of different puppets. Use a template to cut out appropriate sizes of fabric. Stitch buttons to the finished product. Describe the steps taken to design and make a puppet.		

Subject: Fire engines			Year Group: 2			Term: Spring			
									
Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Structure – something built or constructed (from latin ‘structura’, equivalent to struct and ‘ura’ = put together) Mechanism – an assembly of moving parts performing a complete functional motion (from Latin ‘mechanismus’ and Greek ‘mechan’ = machine) Engineer – a person trained and skills in the design, contructions and use of engines or machines (Latin ‘ingenia’ = to design) Design- to prepare the preliminary sketch or plans for a structure (Middle English ‘designen’ and Latin ‘designare’ = to mark out) Criteria- a standard for judgement or to test something (Greek ‘kriterion’ = to separate) Lever – rigid bar that pivots on one point to move an object (Latin ‘levare’ = to lighten) Product- a thing produced by labour Material- the substances of which a thing is made (Latin ‘materialis’ meaning belonging to matter) Hinge- a jointed device or flexible piece which allows other parts to move (Dutch – ‘henge’ meaning to hang)	Remember what an engineer is and what they do Test a variety of products, explaining how they work, knowing that some products use batteries and electricity. Know how to identify likes and dislikes of the designs Know how to suggest improvements to existing designs Explore how products have been created by taking things apart Remember what a wheel does and how it works Investigate levers and winding motions, design (on Purple Mash) and create products using levers and winding motions. Remember how to safely use a saw and cutting tools. Measure and mark out to the nearest centimetre. Testing a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) to find the most suitable way.	Which engineers or companies make the same product? What do I like and dislike about a product? What do I notice? What is a lever and how can I make one? How does winding motion make something move? How has it been made? How does it work? Why is it faulty? What is a wheel? What is an axel and how does it move and support a wheel? What is it made from? How are tools used safely and efficiently? How can a ruler be used accurately? How can I join materials so my product is strong?	Explain what an engineer is and where they might work. Identify where a lever and winding motion has been used. Evaluate products, explaining how they would improve them. Use 2Design on Purple Mash Construct a lever and explain how it works, including the word pivot. Make a product with a winding motion and explain how it works. Cut materials safely using tools provided. Measure using a ruler and mark out to the nearest centimetre. Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen) Evaluate how my product matches the design criteria.						

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Subject: Structures – Castles (winding drawbridges)			Year Group: 2			Term: Summer					
											
Vocabulary			Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful			Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
			Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Structure – something built or constructed (from latin ‘structura’, equivalent to struct and ‘ura’ = put together) Mechanism – an assembly of moving parts performing a complete functional motion (from Latin ‘mechanismus’ and Greek ‘mechan’ = machine) Engineer – a person trained and skills in the design, contructions and use of engines or machines (Latin ‘ingenia’ = to design) Building – a structure made to provide a safe and secure place for people to live, work or play. Design- to prepare the preliminary sketch or plans for a structure (Middle English ‘designen’ and Latin ‘designare’ = to mark out) Criteria- a standard for judgement or to test something (Greek ‘kriterion’ = to separate) Lever – rigid bar that pivots on one point to move an object (Latin ‘levare’ = to lighten) Product – a thing produced by labour Material – the substances of which a thing is made (Latin ‘materialis’ meaning belonging to matter) Hinge- a jointed device or flexible piece which allows other parts to move (Dutch – ‘henge’ meaning to hang)			Know that a structure is something built or constructed. Know that a structure must hold up against weight or pressure, and that the way a structure is built affects its ability to do so. Know that drawbridges are a type of bridge that can be raised or lowered to allow or prevent passage. Remember what an engineer is and what they do Test a variety of products, explaining how they work, knowing that some products use batteries and electricity. Know how to identify likes and dislikes of the designs Know how to suggest improvements to existing designs Explore how products have been created by taking things apart			Understand that different materials can be used to build structures such as wood, cardboard, Lego etc. The weight or pressure in a structure needs to be distributed evenly in order for the structure to be stable. Understand how levers, wheels/axels, pulleys and gears can be used to make a winding mechanism work.			Generate sketches and plans of their design. Identify the required features of the finished product. Join materials together. Build a prototype. Select a range of materials to use.		

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Subject: Greenhouses			Year Group: 3			Term: Autumn					
											
Vocabulary			Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful			Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
			Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Greenhouse: A greenhouse is a special building or structure with lots of glass windows that helps plants grow by trapping sunlight and heat inside. Engineer: An engineer is a person who designs and builds things, like buildings, bridges, or machines, using their knowledge of science and math. Structure: A structure is something that is built or made, like a building, bridge, or tower, that has a strong and solid shape to support and hold things. Pressure: Pressure is the force or push that is applied to something, like when you squeeze a balloon, the air inside creates pressure. Stable: Stable means something that is steady and doesn't move easily, like a horse in a stable that stands on all four legs without wobbling or falling.			Know what a greenhouse is. Know that a structure is something built or constructed. Know that a structure must hold up against weight or pressure, and that the way a structure is built affects its ability to do so. Know that structures can be pieced together in different ways. Remember what an engineer is and what they do Test a variety of products, explaining how they work, knowing that some products use batteries and electricity. Know how to identify likes and dislikes of the designs Know how to suggest improvements to existing designs Explore how products have been created by taking things apart			Understand that different materials can be used to build structures such as wood, cardboard, Lego etc. The weight or pressure in a structure needs to be distributed evenly in order for the structure to be stable. Understand the structure must be stable, waterproof and transparent.			Generate sketches and plans of their design. Identify the required features of the finished product. Join materials together. Build a prototype. Select a range of materials to use. Build the structure using a base. Construct it by building a frame – and covering as needed with a suitable resource.		

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Subject: Food – Prepare and pack a healthy snack		Year Group: 3			Term: Spring					
										
Vocabulary		Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment	
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating	
Fruit – any edible product of plant growth useful to humans or animals Exported – when produce is sent out to another country Imported – when produce is accepted into another country Healthy – enjoying good health Ingredients – Latin (stem of ingredienes) something that enters as an element into a mixture Climate – the weather and temperature in every country in the world Recipe – Latin (recipere) a set of instructions for making or preparing a food dish Nutrients – the substances in all living things to enable them to live, grow and thrive Seasons – spring, summer, autumn, winter	How to look at cookery books of different chefs and countries, finding ones they would like to eat. How to explain objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs and what make them appealing to the consumer. Testing how food products have been created. Assemble or cook healthy ingredients. How to cut, peel or grate ingredients safely and hygienically. To use scales or measuring cups, measure or weigh food items to nearest gram. Begin to evaluate their ideas and products against design criteria and how to change next time.	Understand where food comes from and be able to discuss the cycle of food production. Understand which foods are grown and which are produced. Observe how food items are made and be able to copy the techniques modelled. Understand that food must be prepared safely and hygienically and be able to explain the reasons why. Practise how to use a knife, grater and peeler safely, knowing the reasons why, observing how to listen to instructions. Understand the difference between healthy and unhealthy ingredients and what makes them that way.	Find a recipe in a cookbook or using an internet search. Identify ingredients that can be classed as healthy and unhealthy. Create a template example of a healthy and unhealthy dish. Group ingredients to show which ones are grown and which ones are produced. Use a knife, grater and peeler safely and reflect on why it is important. Measure ingredients using a scale and measuring cups/teaspoons/tablespoons. Evaluate a food dish or item, being able to explain why they like or dislike it. Design packaging on 2Design.							

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Subject: Textiles – Running stitch, shirt pouch			Year Group: 3			Term: Summer					
											
Vocabulary			Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful			Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
			Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Aesthetic – Latin (aestheticus – perception) sense of beauty Assemble – bring or gather in one place Design – prepare plans or a sketch Criteria/criterion – Greek (kriterion – a standard) rule for evaluating or testing something Evaluation – appraisal/appraising Fastening/fastener – something that fastens such as a lock or clasp Mock-up – a model, often full-size, for testing after design and draft stage Net – stage before mock-up, product before fastening or stitching Stitching – one complete movement of a threaded needle through a fabric or material. To sew, join or embellish with stitches. Stencil – a device for applying a pattern or design to a fabric or material Template – a pattern serving as a guide			Different designers from around the world. How different materials react under different conditions, choosing the most suitable material for their products. Know how to use 2Simple to create a design. Remember how to tinker with different materials and design own product. Remember how to measure and mark out to the nearest centimetre. With tools provided, children know how to use them safely and sensibly. Evaluate product as going along with a final evaluation against the design brief.			How to compare different designers from around the world – likes and dislikes. Observe different materials and their features. How to follow instructions on working with needles, scissors and materials safely, being able to explain why. Observe the importance for the aesthetics of their own products, being able to explain why this is important. Practise different sewing techniques and why certain ones are most suitable for their product. Practise and demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling) Understand why their product was suited and why it wasn't.			Research and investigate different designers from around the world – explaining which ones they like and dislike. Use 2Simple to create design. Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Use a running-stitch to join fabric. Cut materials accurately and safely using tools provided. Select the most appropriate techniques to decorate textiles, such as dyeing, adding sequins or printing, being able to explain those choices. Explain why their product achieves the design brief and reflect how it can be improved next time.		

Subject: Torches		Year Group: 4			Term: Autumn		
							
Vocabulary		Knowledge What children will know			Understanding What children will understand		
Define the word and include etymology if useful		Learning	Teaching	Assessment	Learning	Teaching	Assessment
		Remembering	Telling	Testing	Practising	Coaching	Observing
Torch: A torch is a handheld device that produces a bright beam of light when you switch it on, and it helps you see in the dark. Power source: A power source is something that provides energy to make things work, like a battery or electricity from a plug in the wall. Light: Light is something that brightens up a place and helps us see, like the Sun during the day or a lamp that you switch on in your room. Circuit: A circuit is a path that electricity can flow through, like a loop that connects the battery, wires, and bulbs in a torch. Illuminate: Illuminate means to make something brighter or light up, like when you switch on a lamp, it illuminates the room and makes it less dark.		Know what a torch is and how it used. Know that a torch needs a power source. Know that a torch needs a light source. Know how a circuit works. Know which materials are suitable for different parts of the torch. Know how to use tools safely such as screwdrivers, pliers and wire.			Understand the features of a torch. Understand electrical safety. Understand simple circuitry. Understand how to safely use a range of tools.		
					Identify the features of a torch. Select a range of suitable materials. Design the torch using sketches and diagram. Include: - The size and shape of the casing - Location of the switch - Wiring layout Construct a circuit. Assemble the torch by combining the components. Test the torch and identify what they could improve. Handle the torch and electrical components carefully.		

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Subject: Bridges			Year Group: 4			Term: Spring			
									
Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Bridge: A bridge is a structure that helps us cross over obstacles like rivers, valleys, or roads, and it is built to be strong and safe. Durability: Durability means how long something can last and stay strong without breaking or getting damaged easily. Columns: Columns are tall, strong pillars that support and hold up the weight of a bridge, building, or structure. Piers: Piers are solid structures built in water, like rivers or seas, to support and hold up the parts of a bridge that are in the water. Abutments: Abutments are the strong supports at each end of a bridge that hold it in place and help distribute the weight. Beams: Beams are long, sturdy pieces of metal or wood that span across the supports of a bridge and help carry the weight. Cables: Cables are strong, thick ropes or wires made of steel that are used to support and hold up the bridge, like the cables you might see on a suspension bridge.	Know what a bridge is and what it is used for. Know the properties, strength, durability and weight of each material used in building a bridge. Know the size and scale of bridges. Know the structural elements of bridges: • Columns • Piers • Abutments • Beams • Cables Know how to safely use saws, drills, clamps and glue.			Understand the principles behind each bridge. Understand the advantages and disadvantages of each bridge type. Understand size and dimension of their bridge based on the available materials. Understand that forces and loads affect bridges, such as: • Compression • Tension • Bending • Shearing			Identify different bridges: • Suspension • Arch • Beam • Truss • Cable stayed Choose appropriate materials. Construct a bridge to withstand different forces. Include all the structural elements in their design. Safely join materials using tools safely. Identify how to improve their finished product.		

Subject: Bread			Year Group: 4			Term: Spring			
									
Vocabulary	Knowledge What children will know			Understanding What children will understand		Skills What children will be able to do			
Define the word and include etymology if useful	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Bread: Bread is a delicious food that we eat made from dough, which is baked in the oven and becomes soft and fluffy. Ingredients: Ingredients are the different things we use to make a recipe, like flour, water, yeast, and salt that go into making bread. Mix: To mix means to combine or stir ingredients together, like when we mix flour, water, and yeast to make dough. Temperature: Temperature is how hot or cold something is, like the temperature in an oven when we bake bread. Rising: Rising is when dough gets bigger and puffy because of the yeast inside it, making the bread soft and airy. Hygienic: Hygienic means being clean and taking care to keep things free from dirt and germs, like washing our hands and using clean utensils when we make bread.	Know what bread is. Know the ingredients required: • Flour • Yeast • Salt • Water • Sugar Know how to mix ingredients together to form the dough. Know to preheat the oven and set temperatures and timers. Know to act safely in the kitchen: • Use oven gloves • Keep hair tied back • Wash hands thoroughly			Understand the role of each ingredient in making bread. Understand the precise measurements in baking. Understand the concept of rising. Understand that base tapping helps identify if the bread is ready. Understand simple food hygiene. Explore rolls, buns and braids.		Accurately measure ingredients using cups, spoons and a kitchen scale. Knead dough together to develop the gluten and give the bread structure. Create a warm, draft-free environment for the bread to rise. Follow rising times in a recipe. Use a thermometer to check the temperature of bread. Experiment with adding herbs, spices or cheese.			