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	Autumn	Vocabulary	Spring	Vocabulary	Summer	Vocabulary
EYFS	**Nursery – Range of Materials** Explore different materials freely to develop their ideas about how to use them and what to make. **Nursery – Tools and fixings** Begin to use cutlery accurately With supervision, use staplers and hole punches safely **Nursery – Sculpting** Use playdough to create shapes Begin to use playdough cutters with control **Reception – Range of Materials**	**Nursery Vocabulary:** build, join, plastic, paper, cardboard **Reception Vocabulary:** material, wood, foil, fabric, fixing	**Nursery – Range of Materials** Use various construction materials, e.g. joining pieces, stacking vertically and horizontally, balancing, making enclosures and creating spaces. **Nursery – Tools and fixings** Use scissors accurately Use masking tape, Sellotape (and cutter), elastic bands, Pritt stick and PVA glue accurately **Nursery – Sculpting** Use playdough and plasticine to sculpt specific ideas or to copy specific sculptures Begin to use key vocabulary to describe what they have created, e.g. squashed, squeezed, pulled	**Nursery Vocabulary:** stapler, hole punch, treasury tag, tools, goggles, safely **Reception Vocabulary:** trowel, drill, vice, saw, split pins, safety equipment	**Nursery – Range of Materials** Join different materials, beginning to explain choice linked to shape and texture / properties. **Nursery – Tools and fixings** With supervision, begin to use an age-appropriate hammer and screws (goggles and gloves). **Nursery – Sculpting** Use loose parts and a range of materials to create own models. **Reception – Range of Materials** Join different materials explaining why they have chosen certain parts. **Reception – Tools and fixings** Know how to use an age-appropriate hammer, screws,	**Nursery Vocabulary:** plasticine, squash, squeeze, pull, push **Reception Vocabulary:** clay, papier mâché, twist, stretch, flatten

	Develop their own ideas through experimentation with a diverse range of materials Increasingly choose more appropriate materials for the job, e.g. cotton reels / lids for wheels, wool / thread for hair. **Reception – Tools and fixings** Accurately use a range of small tools - scissors, cutlery, stapler, hole punch, trowel **Reception – Sculpting** Use correct vocabulary to describe process e.g. twisted, rolled, stretched		**Reception – Range of Materials** Purposefully choose construction materials for a specific job. **Reception – Tools and fixings** Use a range of fixings explaining choices – staples / stapler, hole punch, treasury tags, split pins, different glues, Sellotape, masking tape **Reception – Sculpting** Create their own sculptures and talk about the process they have used to achieve their desired effect		nails, hand drills, hand vice and a saw safely (goggles and gloves). **Reception – Sculpting** Sculpt with playdough, plasticine, clay and papier-mâché to create a specific idea	
1	**DT Block A – How can you make a picture move?**	**Block A Core Knowledge:**	**DT Block C – How does food affect your senses?**	**Block C Core Knowledge:**		**Block E Core Knowledge:**

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	Mechanisms **Lesson sequence** 1. Define the terms: slider, push, pull, linear and movement. Explore sliding mechanisms in greetings cards, interactive books and everyday objects. Explain the movement and forces involved in sliders: push, pull, linear. Define the terms: weave and template. Use scissors and templates to make a paper weave (pattern plate). Evaluate results 2. Demonstrate how to make three types of slider mechanism 3. Construct a novelty toy or greetings card which has a movable image. Make design decisions about who the product is intended for and what its purpose is. Apply simple construction and design skills. Evaluate outcomes	Slider Slot Bridge **Technical Vocabulary:** Push Pull Rigid **Block B Core Knowledge:** Tower Topple Lean **Technical Vocabulary:** Foundation Balance Perpendicular	**Food and Nutrition** **Lesson sequence** 1. Identify the five senses and five key flavours: sweet, salty, sour, bitter and umami. Explore the ways that eating food stimulates the senses. Explain the benefits of eating raw vegetables in a variety of colours. Demonstrate techniques for preparing vegetables, such as ribboning. Use appropriate vocabulary to describe flavours and textures and state preferences 2. Recap on key principles from previous lesson. Discuss what makes food appealing to all our senses. Demonstrate how to prepare crudités using the claw and bridge techniques Revisit grating and ribboning. Encourage the use of appropriate vocabulary to describe texture and taste and in the evaluation of outcomes 3. Describe the aroma of a range of herbs and spices and	Senses Vitamins Sensory **Technical Vocabulary:** Ribboning Caramelise Marinade **Block D Core Knowledge:** Construction Properties Architect **Technical Vocabulary:** Modify Cement Solidify	**DT Block E – How can two squares of fabric keep you warm?** **Textiles** **Lesson sequence** 1. Explain and use relevant vocabulary. Introduce and demonstrate a simple running stitch using yarn and darning needles. Make holes for sewing in a paper plate or piece of cardboard, using a hammer and nail. Use stitches to outline a word or initial and to add decoration 2. Introduce and name a range of open weave fabrics. Compare the properties of different sewing threads. Make a record of fabrics and threads used by labelling sewing samples 3. Attach two squares of felt using running stitch to create a pouch. Create a simple monster face using pieces of felt. Explain the importance of using small stitches and using	Binca Sewing Felt **Technical Vocabulary:** Running stitch Attach Pouch **Block F Core Knowledge:** Function Variety Texture **Technical Vocabulary:** Vitamins Nutritious Pane

	Prior learning: EYFS manipulate fabric and yarns by poking, pulling, threading and weaving, draw around a template, use scissors to cut along straight and curved lines and around shapes **DT Block B – How can you stop a tower from toppling over?** **Structures** **Lesson sequence** 1. Explore how the size of a base affects the stability of a tower and how tall it can be built. Explain what balance means and how balance affects the stability of a tower. Explain what a foundation is and how this creates stability. Experiment with combinations of different shaped and sized blocks,		explore how marinading affects food. Explain caramelisation and explore how this process affects taste. Evaluate outcomes, state preferences and make suggestions for adaptations and improvements **Prior learning:** EYFS distinguish between fruit and vegetables, name a range of vegetables,identify the five senses **DT Block D – Can you build with bread?** **Understanding Materials** **Lesson sequence** 1. Identify different materials. Describe the properties of materials. Sort materials according to their properties. Describe how the properties of cement change when water is added, and it is left to dry 2. Identify materials that are suitable and unsuitable for use		two lines of running stitch. Explain why rice is used to fill the pouch and what happens to the rice when the pouch is placed in a microwave **Prior learning:** EYFS identify materials such as cardboard, string and polystyrene, manipulate fabrics and yarns by poking, pulling, threading and weaving **DT Block F – Why are vegetables the best?** **Food and Nutrition** **Lesson sequence** 1. Explore the health benefits of eating a wide variety of vegetables. Combine ingredients to create three separate vegetable dips. Demonstrate methods of preparing vegetables such as blending and dicing 2. Prepare and combine a variety of salad vegetables. Describe flavours and textures	

	positioned in a variety of ways to build a tower. Evaluate outcomes and draw conclusions about what makes a tower less likely to topple 2. Explore different methods of joining cardboard for construction purposes. Decide which types of joins would be most effective for use in building a tower Label types of join and explain how they were made 3. Create a design based on knowledge of what makes a tower stable. Use construction materials such as cardboard to build a freestanding structure. Identify effective methods and materials that have been used in a construction Identify ways in which the stability of a structure can be improved **Prior learning:**		in construction. Explain how the properties of a material can change when heat is added. Know how to combine ingredients to create a bonding product 3. Make decisions about the suitability of materials for building. Make decisions about substances that can be used to bond materials securely. Explain what makes properties of materials change (adding heat or water.) Make changes to a design to allow for the limitations of materials used **Prior learning:** Sort objects according to size, shape and colour, use a ruler accurately to draw and measure lines, identify that objects are made from different materials		and identify flavours and textures that complement each other 3. Practise the pane cooking technique of coating food in flour, beaten egg and breadcrumbs. Explore how cooking vegetables and coating them in breadcrumbs can change their texture and flavour. Evaluate outcomes using appropriate technical vocabulary **Prior learning:** Explain that vegetables contain vitamins and minerals that the body needs, peel, chop and grate a selection of vegetables, identify what makes food appealing to all our senses	

	EYFS use scissors, identify different types of building blocks					
2	**DT Block A – How can you repurpose an item of clothing?** **Textiles** **Lesson sequence** 1. Identify the properties of a range of fabrics. Sort fabrics according to specific criteria. Explore how fabrics can be repurposed to create patchworks. Identify geometric shapes that are suitable to make patchworks. Use a template to create multiple shapes of the same size. Arrange samples of paper or fabric to create an attractive patchwork design	**Block A Core Knowledge:** Patchwork Overstitch Repurpose **Technical Vocabulary:** Template Applique Quilt **Block B Core Knowledge:** Free-range Processed Coagulate **Technical Vocabulary:** Vitamins Protein Wholemeal	**DT Block C – Are bigger wheels always better?** **Mechanisms** **Lesson sequence** 1. Explore the difference between fixed axles and rotating axles and identify their applications 2. Explore, experiment and explain the effects of changing different variables relating to wheels and axles 3. Use knowledge of wheels and axles to design and make a simple vehicle. Evaluate vehicles and explain reasoning for design choices **Prior learning:** YR1 use modelling materials and equipment safely, use	**Block C Core Knowledge:** Wheel Axle Axle holder Chassis **Technical Vocabulary:** Rotate Position Centre **Block D Core Knowledge:** Manipulate Flexible Barrier **Technical Vocabulary:** Waterproof Resistant Absorbent	**DT Block E – How healthy is your food?** **Food and Nutrition** **Lesson sequence** 1. Identify examples of processed and ultra processed food 2. Explore the healthy alternatives to processed food that can be made using fresh ingredients 3. Identify the importance of fibre and carbohydrates in a balanced diet. Explain the importance of nutrients such as protein and calcium which can be found in cheese **Prior learning:** YR1 use a knife safely and accurately with control, explain that vegetables	**Block E Core Knowledge:** Ingredients Fibre Protein **Technical Vocabulary:** Processed Vitamins Starch **Block F Core Knowledge:** Paper Crease Corrugated **Technical Vocabulary:** Pillar Story Load

	2. Appliqué a cutout shape onto another piece of fabric. Thread a needle using a needle threader. Use an overstitch to join pieces of fabric 3. Explore the history of quilt making. Attach a card template to pieces of fabric using running stitch. Use an overstitch to join fabric shapes together securely and neatly. Create a patchwork by following a specific process **Prior learning:** YR1 identify parts of a needle and explain the meaning of words such as yarn and thread, thread a needle independently, use a running stitch to attach pieces of fabric **DT Block B – What does healthy mean?** **Food and Nutrition**		rulers and scissors accurately, name types of transport **DT Block D – How can you waterproof a hat?** **Materials** **Lesson sequence** 1. Identify features of clothing designed to be suitable for wet weather conditions. Sort clothing according to their suitability for specific weather conditions. Carry out a fair test to determine whether materials are waterproof 2. Explore what makes feathers waterproof and why this is important. Identify how boots have been adapted to make them fit for a specific purpose. Test paper for its water-resistant qualities 3. Explore how paper can be folded and creased to create different 3D forms. Identify how the properties of paper change when folded in a variety of ways. Test		contain vitamins and minerals that the body needs, use appropriate vocabulary to describe flavours and textures and explain preferences, use the techniques of grating and ribboning safely and with control **DT Block F – How strong is a piece of paper?** **Structures** **Lesson sequence** 1. Explore methods of folding to increase the strength of paper. Conduct a fair test. Test the strength of different-shaped paper pillars. Test the strength of folded and corrugated paper 2. Use a combination of folded and flat cards to create a multistorey tower. Explore how the positioning of folded cards affects the stability of a tower 3. Design and make a structure according to set criteria.	

	Lesson sequence 1. Introduce pupils to a wide range of salad vegetables, some of which they may be unfamiliar with. Explain the difference between fresh and processed food and why processed food is less healthy than fresh Identify some of the key nutrients in salad vegetables. Explain that having a healthy diet requires us to eat a range of foods to ensure our bodies receive all the different nutrients it needs. Make a layered salad with a simple dressing 2. Explain why protein is needed by the body and that meat, dairy products and eggs are a major source of this nutrient. Explain the term freerange and discuss the ethical issues around animal welfare. Make a quiche		substances for their water-resistant properties and select the most effective **Prior learning:** YR1 identify properties of materials, sort materials according to their properties		Modify a design in light of test results. Rebuild a structure to incorporate design changes **Prior learning:** YR1 build structures that are free standing using a range of different materials, identify different types of building blocks, explain that a wide base or foundation provides greater stability to a structure	

	using a tortilla wrap as a base 3. Explain the difference between white and wholemeal flour. Explain what fibre is and that the body needs fibre to maintain a healthy digestive system. Make a healthy alternative to crisps, using pitta bread seasoned with herbs and spices **Prior learning:** YR1 name a range of vegetables, explain why eating vegetables is good for us, explain what vitamins are, use the techniques of grating and ribboning					
3	**DT Block A - How can you make a box out of cloth?** **Textiles** **Lesson sequence**	**Block A Core Knowledge:** Starch PVA glue Gelatin	**DT Block C – How can you do a lot of work with little effort** **Mechanisms** **Lesson sequence**	**Block C Core Knowledge:** Lever Linkage Mechanism	**DT Block E – How are things powered?** **Systems** **Lesson sequence**	**Block E Core Knowledge:** Energy Energy source Types of energy

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	1. Identify the variables that will change and those that will not in a fair test. Explore a range of solutions that can be applied to a fabric to make it rigid 2. Suggest and explore ways in which a box can be covered using fabric. Use a template to cut fabric to the appropriate size and shape. Fold and manipulate fabric to cover both the inside and outside of a box 3. Select a stiffening agent and use templates to create fabric props that will hold their shape. Use a box as a mould in order to create a box shape from fabric. Use a template to form a box that requires no cutting **Prior learning:** YR2 use a template to cut shapes accurately from fabric, fold and attach	**Technical Vocabulary:** Stiffen Interfacing Cloth **Block B Core Knowledge:** Seasonal Balance Preserve **Technical Vocabulary:** stew pressure seasoning	1. Learn how levers provide a mechanical advantage by creating a force that can move a load with minimal effort Identify the components of a lever: fulcrum, effort and load Identify the load, fulcrum and effort in three classes of lever. Construct a class one and class three lever (see-saw and catapult) 2. Linkages are a series of levers and pivots. Explore the difference between the input and output force in a range of linkage systems. Describe the different types of motion created by linkages. Design a simple toy mechanism that uses a linkage system. Explain how your toy will work and the movement created by the linkage 3. Select an appropriate design for a specific movement created by a linkage system. Construct a simple linkage system. Evaluate the outcome and suggest ways in which the	**Technical Vocabulary:** Force Load Effort **Block D Core Knowledge:** Nutrition Fibre Minerals **Technical Vocabulary:** Seasoning Claw Bridge	1. Explain what energy is Identify energy sources for a range of objects. Identify and explain energy sources: food, wind, water, solar, oil, gas, coal, nuclear, petrol. Match objects to energy sources. Explain how energy can be controlled 2. Identify types of energy and match to everyday examples. Explain that energy is converted from one form to another and cannot be created or destroyed. Discuss the factors that designers take into account when selecting energy sources. Identify advantages and disadvantages of different energy sources. Explain sustainability and give examples of sustainable energy sources. Explain fossil fuels and why we are moving away from this source of energy 3. Explain the achievements of key inventors, exploring their designs and energy sources used. Identify functions and	**Technical Vocabulary:** Turbine Source Intermittent Renewable **Block F Core Knowledge:** Gap Deck Pier **Technical Vocabulary:** Suspension Arch Bascule

	fabric to a paper template accurately, mould and manipulate paper to create 3D forms, use a range of methods to join materials **DT Block B – What do we mean by a balanced diet?** **Food and Nutrition** **Lesson sequence** 1. Explain that to have a balanced diet we should eat healthy foods regularly and less healthy foods in moderation. Explore how seasonality affects our diet. Show examples of different methods of preserving fruit. Demonstrate how to stew fruit 2. Explore the difference in ingredients between processed and homemade popcorn. Teach pupils about the origin of popcorn and the plant it		movement of the mechanism could be changed or improved **Prior learning:** YR2 identify simple mechanisms and their uses **DT Block D – How does food affect your body and mind?** **Food and Nutrition** **Lesson sequence** 1. Explore how food benefits the body and mind. Explore how to adapt the flavour of food 2. Recognise the importance of fibre and how it aids digestion. Identify foods that are high in fibre such as wholegrains. Identify flavours and suggest ways in which flavours can be adjusted 3. Identify a range of spices and use them to season food. Describe how the texture and taste of food can be changed or enhanced by using		power sources of appliances and explain the choices a designer has made Identify benefits and limitations of different energy sources. Conduct practical experiments to demonstrate the conversion of one form of energy to another **Prior learning:** YR2 identify mechanisms that are powered by hand, identify some appliances that use electricity, use relevant vocabulary to describe weather, explain what humans and animals need to survive **DT Block F – What makes a bridge strong?** **Structures** **Lesson sequence** 1. label an image with the key features of a bridge Identify types of bridges Identify differences and similarities between images of a range of	

	comes from. Explain and demonstrate how to make popcorn. Investigate flavour and seasoning combinations 3. Explore the nutritional value of potatoes and the importance of starch. Explain that deep-fried food can be included in our diets if eaten in moderation. Explain that the fat pre made chips are often cooked in can be less healthy than the fat used in homemade versions. Experiment with a range of seasonings to enhance flavour. Explain what semolina is, where it is often used and why it makes a suitable coating for chips **Prior learning:** Use knife skills with increasing confidence and accuracy, identify examples of processed food, identify some key		seasoning, by roasting and by marinading **Prior learning:** Use the bridge method to cut food safely, identify and describe key flavours, peel, chop and grate a selection of vegetables, describe how food can affect the senses		bridges. Explain the purpose of a bridge and the importance of strength and stability. Explore how using weight as a counterbalance can provide stability to a bridge structure 2. Explore ways of stabilising a beam bridge made from paper. Create features such as arches and piers from paper. Modify a design in light of test results. Make decisions about which features are most effective at strengthening a bridge 3. Design and construct a bridge to hold a specified weight and span a specific gap. Make decisions about which features to include and explain reasoning. Construct features from cardboard and attach bridge parts securely to ensure stability. Adjust a design to improve the stability and strength of a bridge structure **Prior learning:** Make a structure in accordance with a set of criteria, recognise that a	

	nutrients found in fresh food, know the importance of fibre and carbohydrates in a balanced diet				cylindrical pillar is stronger than a rectangular one	
4	**DT Block A – What's really in your food?** **Food and Nutrition** **Lesson sequence** 1. Compare the ingredients used in mass-produced pizzas with those used in homemade pizzas. Identify the nutrients present in flour, cheese and tomatoes: carbohydrates, vitamins, protein and calcium. Make a simple yeast free dough and use the techniques of kneading, rolling and stretching to form the dough. Explain what gluten is and how it affects the texture of	**Block A Core Knowledge:** Ingredients Processed Bread **Technical Vocabulary:** Gluten Knead Ferment **Block B Core Knowledge:** Hinge Knuckle Leaf Pin Barrel **Technical Vocabulary:**	**DT Block C - How do you keep a teatowel from slipping off a hook?** **Textiles** **Lesson sequence** 1. Explore the component parts and purposes of a range of fasteners. Identify advantages and disadvantages of each fastener. Explain the suitability of fasteners for specific purposes 2. Use sewing techniques to attach a range of fasteners Evaluate outcomes and record the methods used 3. Using running stitch, create a pocket by stitching two pieces of felt together. Use running stitch to gather fabric to a specific length. Apply	**Block C Core Knowledge:** Shank Burr Hook and loop **Technical Vocabulary:** Buckle Fastener Raw edges **Block D Core Knowledge:** Structural engineer Geodesic Gravity **Technical Vocabulary:** Truss	**DT Block E – How useful are switches?** **Electrical systems** **Lesson sequence** 1. Teach pupils that a switch is a control mechanism used to interrupt the flow of electricity in a circuit. Explain that switches are useful because they allow us to turn appliances on and off. Give examples of switches that have more than one function. Teach pupils that some switches can vary the speed, volume or degree of light provided by appliances. Build simple circuits to include a switch 2. Explore appliances that have different kinds of	**Block E Core Knowledge:** Switch Circuit Component Current **Technical Vocabulary:** Interruption Unbroken Conductor Multi-purpose **Block F Core Knowledge:** Cheap Fusion Texture **Technical Vocabulary:** Shallow-fry Shortening

	dough. Explore traditional pizza topping ingredients 2. Explore the differences in terms of flavour, textures and nutritional value between mass produced bread and homemade bread. Explain the additional ingredients that are present in mass produced bread products. Explain what yeast is and how the fermentation process works to make bread dough rise. Define the term proving and explain this process and how it affects the final outcome 3. Explore the difference in ingredients between tinned and freshly made soup. Explain that eating lots of pre-made foods can make it difficult to control our intake of sugar and salt. Make a simple soup. Compare the taste and texture of tinned and freshly made soup.	Butt hinge Concealed hinge Net	previously learned skills and knowledge to a context. Select and make a suitable fastener Explain a process and evaluate outcomes **<u>Prior learning:</u>** Use running stitch to attach fabrics, describe the properties of materials, use scissors to cut accurately **<u>DT Block D – Which shapes will give a structure stability?</u>** **<u>Structures</u>** **<u>Lesson sequence</u>** 1. Identify and explain the forces that affect buildings (compression, gravity, tension) Describe the role of engineers and architects. Conduct investigations to discover the load bearing properties of cylinders made from a sheet of paper compared with cylindrical forms constructed from a series of smaller cylinders	Compression Tension	switches and how they work. Draw a simple circuit diagram for an electrical appliance. Explain the different purposes of switches: efficiency, safety and functionality. Explore appliances that have more than one switch and investigate their purposes, such as to vary volume, light and heat 3. Explore types of switches in a range of toys and games. Explore how some games incorporate an interruption to an electrical current, which effectively acts as a switch. Model how to make simple games that incorporate an interruption to an electrical current. Demonstrate how insulating materials can be used to break the flow of an electrical current **<u>Prior learning:</u>** Name sources of electrical energy: batteries, mains power, rechargeable batteries, identify common appliances	Fragrant

	Evaluate results and suggest ways in which a recipe could be adapted **Prior learning:** Identify some of the nutrients in a range of foods, dice, slice, chop and grate vegetables, explain the benefits of fresh food, compared to processed food **DT Block B – How many ways are there to open a door?** **Mechanisms** **Lesson sequence** 1. Identify the purpose of a hinge and know that it is a rotating joint that allows movement between two linked objects. Explain the different features and applications of a variety of hinges. Use a range of materials and simple tools to construct a variety of		2. Investigate the strength and stability of a range of geometric shape.s Make a record of tests conducted and summarise outcomes. Identify which shapes are strongest and most stable and their application in construction 3. Apply knowledge and skills to a practical context. Collaborate with others to create a structure from triangles. Create, adapt and modify a design. Evaluate results and suggest improvements **Prior learning:** Name the properties of 2D and 3D shapes, explain the difference between 2D and 3D shapes, increase the rigidity and strength of paper by folding and creasing		that use electricity, name the basic components of an electrical circuit: bulb, battery, motor, buzzer **DT Block F – Is cheap food always worse for you?** **Food and Nutrition** **Lesson sequence** 1. Compare the advantages of processed food with its disadvantages Explore ways of using low-cost fresh ingredients to make simple and appetising meals Evaluate outcomes 2. Discover the origins of the pasty and how this traditional snack has been adapted in many other countries. Compare the cost and nutritional content of pre-prepared and homemade food. Make shortcrust pastry. Define the term fusion. Suggest ways in which a recipe could be adapted to reflect the cuisine of other countries	

	hinges and evaluate their effectiveness 2. Use measuring, cutting and joining skills to construct a gift box from cardboard. Design and make a product that incorporates a working hinge. Make decisions about the most appropriate hinge to be incorporated and give reasons for choice. Evaluate outcomes, making judgements about aesthetics, accuracy and stability and effectiveness of the hinge 3. Apply knowledge of how to make a hinge to fulfil a specific brief. Use modelling skills to construct a stable product. Modify the design as necessary Evaluate outcomes **Prior learning:** Use cutting and joining techniques with a range of				3. Explore reasons why meat consumption is high in this country and the advantages of reducing this consumption. Identify ingredients that provide protein which can serve as a suitable alternative to meat. Evaluate outcomes and suggest ways in which a curry could be adapted **Prior learning:** Recognise that good nutrition keeps the body healthy, provides energy and helps the body to repair, use the claw and bridge methods to cut food safely, explain why ultra-processed food is unhealthy	

	materials including card, plastic and wood, show an understanding of how to strengthen and stiffen structures, identify and make simple mechanisms					
5	**DT Block A – Why are our diets so different?** **Food and Nutrition** **Lesson sequence** 1. Explore the varieties of bread from around the world. Explain how flatbreads differ, in terms of the ingredients and cooking methods used, from traditional breads. Use a griddle pan Make garlic butter 2. Explain the differences and similarities between the Danish and UK diet Explore and explain the nutritional value, taste and texture of rye bread. Investigate ways of	**Block A Core Knowledge:** Culture Presentation Variety Smorrebrod Flatbread Mezze **Technical Vocabulary:** Fibre Kneaded Unleavened **Block B Core Knowledge:** Properties Fastener Algorithm	**DT Block C – Which fabric is ideal for creating a functional and hardwearing lunch bag?** **Textiles** **Lesson sequence** 1. Explore the different properties of a range of fabrics and how these determine their uses. Plan and carry out a fair test. Sort fabrics according to their properties 2. Explore the properties of materials used in the storage of food. Explain why materials need to be durable and waterproof. Explore the effect of coating fabric with wax. Record findings and conclusions	**Block C Core Knowledge:** Durability Repurpose Functional **Technical Vocabulary:** Beeswax Swatch Insulate **Block D Core Knowledge:** Culture Migration Spices	**DT Block E – How are frames strengthened, reinforced and made rigid?** **Structures** **Lesson sequence** 1. Explore ways in which framed structures are reinforced. Understand and use technical vocabulary relating to the reinforcement of structures. Experiment with methods of joining straws securely 2. Use carpentry equipment appropriately and safely. Saw lengths of wood to create a frame. Recognise that triangles are the most suitable shape to create gussets and braces to reinforce joins in a frame.	**Block E Core Knowledge:** Frame I-beam Struts **Technical Vocabulary:** Brace Mitre Gussets **Block F Core Knowledge:** Gear Pulley Mechanism

	combining a range of ingredients to create an open sandwich that is visually appealing 3. Explore some culinary traditions of Middle Eastern and Mediterranean countries. Define the term mezze Make simple yoghurt based dressings using a range of flavours. Explain the nutritional value of ingredients such as yoghurt and chickpeas **Prior learning:** Use knife skills safely to prepare a range of vegetables, knead, roll and shape dough, use the claw and bridge techniques confidently **DT Block B – How can we keep ourselves safe on the road?** **Systems**	**Technical Vocabulary:** Fluorescent Reflective Attachment point Debug Programming	3. Explore which clothing items can be repurposed as a lunch bag. Use cutting, stitching and folding to construct a rectangular-based durable lunch bag. Make choices about fastening and decorations **Prior learning:** Use a range of stitches to join fabric, make simple fastenings, explain the concept of wax resist, identify properties of everyday materials **DT Block D – What can you leant from different cultures' diets?** **Food and Nutrition** **Lesson sequence** 1. Explain how changes in lifestyles over time require a change in diet. Explore the nutritional value of traditional Asian recipes, ingredients and cooking methods. Make a	**Technical Vocabulary:** Medicinal Fragrant Stir-fry	Make a written record of the work completed using appropriate vocabulary 3. Apply knowledge of how to make a structure to fulfil a specific brief. Use carpentry skills to construct a stable frame, incorporating structural joins for additional support and strength. Identify the structural joins used and give reasons for choices. Evaluate and modify the design and structure as needed **Prior learning:** Identify shapes suitable for adding strength to a structure, identify some methods used to provide structural stability **DT Block F – How can you lift a car onto a roof?** **Mechanisms** **Lesson sequence**	**Technical Vocabulary:** Gear train Driver gear Idler

	Lesson sequence 1. Understand the importance of road safety. Select materials based on their properties. Combine materials to fulfil a design brief 2. Different fastenings are appropriate for different purposes. Measure and cut a paper template. Apply basic stitching skills. Explain how a product meets a design brief 3. Technology can be used to control, program and monitor products. Develop an algorithm. Write and test a simple program using coding knowledge. Evaluate a product against a design brief **Prior learning:** Describe the properties of materials, identify and attach fastenings, understand and use		traditional Vietnamese summer roll. Use traditional Asian ingredients such as mint, coriander, fish sauce and rice wine vinegar to add flavours 2. Identify and use some core ingredients and flavours found in Asian cuisine. Explore how specific vegetables enhance our health and have medicinal qualities, such as garlic and ginger. Use the stir-fry cooking technique 3. Identify and use some core ingredients and flavours typical of Indian cuisine. Explain how UK diets have been influenced by Indian cuisine. Explore the medicinal qualities of spices such as turmeric. Experiment with spice mixes to add flavour to vegetables. Explain the term par boil. Select vegetables for their flavour and nutritional value. Evaluate outcomes and explain how a recipe can be adapted **Prior learning:**		1. Explain what a gear is and how it works. Identify different types of gears and their applications. Explore how the direction and speed of movement is changed by using a system of gears and / or pulleys Introduce and define technical vocabulary related to gears and pulleys. Construct a simple pulley system to lift a load. Use diagrams, photos and annotations to record information about gears and pulleys 2.Explore different designs of cranes and their everyday applications. Cranes use pulley systems to provide a mechanical advantage Identify specific constraints and limitations related to a design brief. Make a structure containing a pulley system for a specific purpose. Evaluate outcomes, identifying where modifications need to be made and assess whether the requirements and	

	simple algorithms, design and debug simple programs		Use a range of techniques to prepare and cook vegetables with accuracy and confidence, recognise that good nutrition keeps the body healthy, provides energy and helps the body to repair, identify some advantages and disadvantages of eating pre-prepared food, use appropriate vocabulary to explain processes and describe aromas, flavours and textures		specifications of the brief have been met 3. Explore a range of designs and structures that could fulfil the requirements of the original design brief. Explore a range of gear and pulley mechanisms used in structures such as Ferris wheels, windmills, ski lifts and wells and use these as a basis for designs. Apply modelling, measuring, joining and cutting skills. Evaluate outcomes and identify modifications **Prior learning:** Give examples of simple mechanisms such as levers and linkages, cut and join a range of materials, identify ways in which to make a structure more stable and rigid	
6	**DT Block A – Can street foods save us?** **Food and Nutrition** **Lesson sequence**	**Block A Core Knowledge:** Street food Culture Snack	**DT Block C – Does food affect the way you feel?** **Food and Nutrition** **Lesson sequence**	**Block C Core Knowledge:** Carbohydrates Staple Nutrient	**DT Block E – Can switches perform more than one function?** **Electrical systems** **Lesson sequence**	**Block E Core Knowledge:** Switch Parallel circuit Series circuit Component

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	1. Explore the cultural food traditions of Mexico. Explain what a burrito is Identify reasons why some common snacks are unhealthy. Adapt traditional Mexican recipes to create a healthy snack. Combine flavours and textures and evaluate the results, making suggestions for flavour adjustments 2. Identify reasons why some common snacks are unhealthy. Adapt traditional Mediterranean and Middle Eastern recipes to create a healthy snack. Make pitta bread dough and cook safely. Make hummus and identify its nutritional content 3. Explore traditional Indian snacks. Explain how the UK diet has been heavily influenced by migration from the Indian continent. Make samosas	**Technical Vocabulary:** Nutrient Prove Fry **Block B Core Knowledge:** Pulley Moveable pulley Fixed pulley **Technical Vocabulary:** Block and tackle Rack and pinion Driver gear Driven gear	1.Explore the importance of carbohydrates and the difference between simple and complex carbohydrates. Demonstrate the claw method to dice vegetables safely. Cook pasta and make a simple tomato sauce. Use seasoning to adjust flavour 2.Explore the remedial qualities of food. Make a basic stock. Use a range of culinary techniques to prepare vegetables: dice, chop, grate, pee.l Taste, discuss and suggest modifications to a final dish 3. Explore and use techniques to make food visually appealing. Apply knife skills learned in the previous lessons. Select and arrange colours and textures in a visually attractive way. Evaluate the visual appeal of a dish and suggest improvements **Prior learning:**	**Technical Vocabulary:** Sauté Translucent Dice **Block D Core Knowledge:** Guyed mast Flying buttress Load **Technical Vocabulary:** Aesthetic Edifice Constraints	1. Explore types and functions of switches in a range of products. Identify switches that have a single function and those that are multi-purpose. Suggest reasons why specific switches have been used in particular appliances. Draw circuit diagrams to represent a circuit including a bulb or buzzer and a switch 2. Build circuits according to specific criteria, using a range of components. Define the term simultaneous. Explore and build circuits that will allow components to work independently of each other and simultaneously (series and parallel). Identify the circuits required for everyday appliances. Draw circuit diagrams to represent those circuits (series and parallel) 3. Identify the difference between series and parallel circuits. Define the term brief. Apply knowledge of circuits and switches to design and make a product to fulfil a	**Technical Vocabulary:** Functionality Multi-function Brief Simultaneous **Block F Core Knowledge:** Recycle Repurpose Reduce **Technical Vocabulary:** Chain Seal Skein

	from filo pastry. Explain how filo pastry is made and why, in some cases, buying pre made food is beneficial **Prior learning:** Identify some traditional dishes and ingredients of different cultures, make, roll and cook flatbread, prepare a range of vegetables, present food to a high standard, explain the nutritional value of a range of foods **DT Block B – How do pulleys and gears help you see the world?** **Mechanisms** **Lesson sequence** 1. Identify different pulley systems such as fixed, movable and compound and explain how they work and their applications. Explore and		Explain what humans need to stay healthy, identify the main food groups, hold and use utensils correctly **DT Block D – How strong is a piece of spaghetti?** **Structures** **Lesson sequence** 1. Devise and carry out an experiment to test the strength and stability of spaghetti. Through testing, find ways to increase the weight that spaghetti can withstand. Draw conclusions from observations and test results 2. Investigate the stability and strength of 3D shapes. Explore the effect of adding features such as flying buttresses to a structure. Record observations and evaluate outcomes 3. Identify the features that make a tower more stable Explain how to use guy lines to		design brief. Explain how a product works and the circuits involved. Identify and explain the advantages and disadvantages of the functionality of different products **Prior learning:** Construct simple electrical circuits and name the components, recognise that a switch opens and closes a circuit, give reasons for variations in how components function in a circuit, use recognised symbols when representing a simple circuit **DT Block F – How can we reduce, recycle and repurpose?** **Textiles** **Lesson sequence** 1. Explore ways in which objects and materials can be repurposed. Crochet using repurposed materials. Identify	

	compare the mechanical advantage provided by different pulley systems. Explain what a block and tackle is and identify its common uses. Make accurate measurements of force using a Newton meter. Draw conclusions from results of experimentation 2. Name and identify the difference between different types of gears such as spur, worm and bevel. Identify the movement involved in a rack and pinion system. Apply knowledge of gear trains to design and construct a model Ferris wheel. Make decisions about aesthetics, materials to be used and the method of construction. Evaluate outcomes and make reasoned suggestions for modifications and improvements		provide support for a tower Combine techniques and features to construct a stable tower from limited materials Identify ways in which a structure can be made more stable and modify a design as necessary **Prior learning:** Identify 2D shapes that have strength and stability, such as triangles, explain why cylinders are capable of bearing weight, create a truss, using a series of triangles		properties of materials. Explain how a material's properties will determine its use 2.Explain how plastic is harmful to the environment. Identify properties of plastic. Create a skein of plastic yarn from plastic bags. Crochet a simple bag. Make a record of the processes completed 3. Explore the effects of waste on the planet. Join snack packets by applying heat. Identify properties of the materials used to make snack packets. Identify suitable alternative uses for recycled crisp packets. Design and make a bag using recycled materials and evaluate results **Prior learning:** Make a chain from yarn, identify properties of materials, explore the different properties of a range of fabrics and how these determine their uses	

	<u>Prior learning:</u> Explain what a gear is and how it works, identify different types of gears and their applications, explore how direction and speed of movement is changed by using a system of gears and / or pulleys, construct a simple pulley system to lift a load					