



	Autumn	Spring	Summer
EYFS	<p>Cooking- can we make different dishes? Chop and cut fruit; mix to make fruit salad; bake bread; knead and prove bread; explore melting states (cheese); dip breadsticks for wands.</p> <ul style="list-style-type: none"> - To recognise different fruits and vegetables. - To explore different foods using the five senses. - To understand basic food hygiene when preparing food. - To make a fruit salad using cooking techniques such as mixing, cutting, chopping. - To explore the process of melting foods. - To understand the importance of healthy food choices. 		<p>Rockets- how will we get to space? Use junk materials; join parts together; create folds/ openings; explore shapes of objects; ensure effectiveness sturdiness; evaluate.</p> <ul style="list-style-type: none"> - To understand the purpose of a rocket and what a rocket needs. - To think about shapes and colours when designing a rocket. - To use junk modelling materials to build a rocket. - To use different materials to create 'textures'- foil, cotton wool, sandpaper, etc) - To test their rocket for effectiveness. - To evaluate and change materials for sturdiness and strength.
Year 1	<p>Mechanical Structures- Can we design a slider mechanism? Understand what a mechanism is, how it can be used to make a vehicle move, depict George Stephenson's train.</p> <ul style="list-style-type: none"> - To understand what a slider is and how it moves (example- George Stephenson Train). - To explore different materials that can be used to build a simple slider. - To plan and design a simple slider mechanism. - To build a slider mechanism using different materials. - To test a slider mechanism and suggest improvements. - To evaluate and discuss what slider mechanism they have created. 	<p>Cooking and Nutrition- How smooth is a smoothie? Identify where fruit/vegetables are grown, practice food preparation skills, apply to smoothie recipe. Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - To understand what a smoothie is and what the benefits of a smoothie are. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - Explore different textures of different fruits and vegetables (smooth, rough, chunky, etc). - To learn how to blend ingredients. - To practice basic food prep skills- washing, peeling, etc. <p>Lesson 3: Design</p> <ul style="list-style-type: none"> - To choose fruits and vegetables and write a simple smoothie recipe. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - To make a simple smoothie following my own design. <p>Lesson 5: Make</p>	<p>Textiles- what story can your puppet tell? Use felt and sewing techniques; create animal puppets.</p> <ul style="list-style-type: none"> - To understand what a puppet is and how stories can be told through puppets. - To design a puppet based on a story. - To practice basic joining techniques (sewing, gluing, taping). - To begin creating their puppet. - To recognise how to make their puppet perform different movements. - To practice performing their story using their puppet.



		<ul style="list-style-type: none"> - To innovate and change smoothie based off likes and dislikes. <p>Lesson 6: Evaluate</p> <ul style="list-style-type: none"> - Evaluate smoothies, describing texture and flavour. 	
<p>Year 2</p>	<p>Wheel, Axis and Chassis- Can we make a moving fire truck to help put out the Great Fire of London? Understand and use wheels and axles, recognise which materials are appropriate, create a design representing flames of fire using colour mixing techniques.</p> <ul style="list-style-type: none"> - To understand what a fire engine is and what purpose they would have during the Great Fire of London. - To identify and choose appropriate materials that will help your model move. - Create a simple design for a fire truck, including the parts it will need (such as wheels, axles, and a ladder) and how it will move. - Construct the fire truck model according to their design, focusing on creating a basic mechanism for movement. - Test the fire truck model to ensure it moves smoothly and evaluate its effectiveness. - Create a list of how to improve the movements in their fire truck. 	<p>Building a Structure- Can we build Baby Bear's chair? Plan a design criteria for a structure to be strong and sturdy, use joins and folds, test out strength of different structures.</p> <p>Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - To identify suitable materials for building a small chair, comparing to familiar or similar products. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - To decide what Baby Bear would need in a chair (size, strength, comfort). <p>Lesson 3: Design</p> <ul style="list-style-type: none"> - To create a simple design for Baby Bear's chair. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - To begin building the chair based on a simple design, using suitable tools for cutting, shaping and joining. <p>Lesson 5: Make</p> <ul style="list-style-type: none"> - To complete the chair by adding features of comfort and decoration. <p>Lesson 6: Evaluate</p> <ul style="list-style-type: none"> - To test the finished model and evaluate based on original design criteria. 	<p>Wraps- is it a food group? Recognise different food groups – use all; use appropriate equipment; learn and use chopping, slicing, grating, spreading techniques.</p> <ul style="list-style-type: none"> - To identify the main food groups and understand the importance of a balanced diet. - To explore different types of wraps and what fillings could be chosen. - To plan their wrap by choosing ingredients based on taste, texture and nutrition. - To prepare their ingredients, recognising the importance of food hygiene and safe food handling. - To evaluate their wraps and the ingredients they chose. - To reflect on what they have learnt about food groups and healthy eating.
<p>Year 3</p>	<p>Lever and Linkages- Can we make a moving part skeleton? Use parts to create a desired motion (moving skeleton), understand and use levers and linkages to connect parts together.</p> <ul style="list-style-type: none"> - To understand the basic function of a skeleton and how bones and joints allow movement. 	<p>Shell Structure: Desk Tidy</p> <p>Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - Understand what a desk tidy is and the purpose of a desk tidy. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - To explore what features a desk tidy needs, what shape/size/strength it needs to be. <p>Lesson 3: Design</p>	<p>Bread of the Dead & Salsa- Did Spanish food travel over continents? Measure mix, knead ingredients; prove bread; chop and mix range of vegetables for accompaniment.</p> <ul style="list-style-type: none"> - To discuss the origin of Spanish food and its journey across continents. - To explore Spanish bread and salsa (key ingredients in a traditional recipe). - To design a recipe for making bread.



	<ul style="list-style-type: none"> - To understand how levers and linkages create movement in mechanisms. - To plan and design a skeleton with moving parts. - To construct a skeleton model using levers and linkages. - To assemble and finish the skeleton. - To evaluate the effectiveness of the moving-part skeleton. 	<ul style="list-style-type: none"> - To create a simple design for a desk tidy. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - Begin to build a desk tidy, ensuring it has sturdy structure and is purposeful. <p>Lesson 5: Make</p> <ul style="list-style-type: none"> - Add features to your desk tidy for aesthetics. <p>Lesson 6: Evaluate</p> <ul style="list-style-type: none"> - Test your desk tidy for effectiveness and stability. 	<ul style="list-style-type: none"> - To understand how to prepare the salsa, practicing knife skills and safe food prep techniques. - To follow a recipe and bake bread. - To prepare the salsa, pairing with the bread and evaluating.
<p>Year 4</p>	<p>Seasonal Savoury Tarts- What is the best season for a tart?</p> <p>Explore where food comes from across the world, the benefits of seasonal food, understand how to cut, peel and slice foods.</p> <ul style="list-style-type: none"> - To understand the concept of 'seasonal food' and how it affects availability and flavour of foods. - To choose ingredients for a tart based on what season it is. - To design a tart- thinking about appearance and layout of ingredients. - To understand the components of a tart base. - To arrange the ingredients of a tart based on a planned design. - To taste and evaluate the tart. 	<p>Torches- Can you light up our world?</p> <p>Create a torch using recycled materials, applying knowledge of circuits and how to make a working torch, to follow a design.</p> <p>Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - To understand the basics of electricity and a simple circuit. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - To understand what conductors and insulators are and their role in a circuit. <p>Lesson 3: Design</p> <ul style="list-style-type: none"> - To plan a step-by-step design for a simple torch model. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - To build the structure of a torch and create a simple circuit. <p>Lesson 5: Make</p> <ul style="list-style-type: none"> - To make final adjustments, adding any aesthetics to their torch. <p>Lesson 6: Evaluate</p> <ul style="list-style-type: none"> - To evaluate and reflect what they learned about circuits and what challenges they faced. 	<p>Stuffed Dolls- Can we create a mini me puppet?</p> <p>Use applique techniques; attach pieces of fabric; use cross/ blanket stitches; join fabric together; create representations of themselves.</p> <ul style="list-style-type: none"> - To understand the role of puppets and explore the concept of identity through a puppet. - To explore different materials and identify which materials would be appropriate for a stuffed puppet. - To plan and design their 'mini-me' puppet based on personal features. - To practice basic sewing skills constructing the puppets body (cross/blanket stitch). - To personalise their puppet. - To finalise and evaluate their puppet.
<p>Year 5</p>	<p>Cottage Pie- Why is a cottage pie named so?</p> <p>Use and understand basic baking techniques- chopping, peeling, seasoning, frying mashing, grating. Recognise when meat is cooked through.</p>	<p>Come to the Quayside!- Can we be inspired by the Tyneside bridges?</p> <p>Create replicas of framed triangular structures; make beamed bridges.</p>	<p>Pulleys, Gears, Levers- Can we make a mining coal pulley?</p> <p>Use K'NEX; design and make a coal pulley; use pulleys, gears and levers as part of the design.</p>



	<ul style="list-style-type: none"> - To understand the context and origin of a cottage pie. - To identify traditional ingredients in a cottage pie and explore potential variations. - To plan a cottage pie recipe. - To prepare ingredients for the cottage pie- developing basic cooking skills. - To assemble and bake the cottage pie following a planned recipe. - To taste and evaluate a cottage pie. 	<p>Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - To explore the Tyneside bridges, their history and their impact on the local area. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - To explore the materials used in real bridges and discuss their properties. <p>Lesson 3: Design</p> <ul style="list-style-type: none"> - To plan and design a 'Tyneside' inspired bridge. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - To build the basic structure of the bridge focusing on strength and stability. <p>Lesson 5: Make</p> <ul style="list-style-type: none"> - To add additional support to their bridge for structural and aesthetic enhancement. <p>Lesson 6: Evaluate</p> <ul style="list-style-type: none"> - To test and evaluate the effectiveness of their model. 	<ul style="list-style-type: none"> - To understand the historical context of coal mining and the role of a pulley in this context. - To identify the components of a pulley, discussing the advantages of using pulleys when lifting heavy loads. - To design a working coal pulley. - To construct a pulley based on their designs. - To test the effectiveness and stability of their mining coal pulleys. - To evaluate and suggest improvements of their model.
<p>Year 6</p>	<p>Bean Stew and Tortillas- Can we make Mayan food?</p> <p>Understand vegetables native to South America, use cooking techniques such as chopping, slicing, mixing, stewing, explore how to mix, knead and prove tortillas.</p> <ul style="list-style-type: none"> - To understand Mayan civilization and the significance of food in their culture. - To learn about traditional Mayan dishes such as tortillas, tamales and hot chocolate. - To plan a simple, Mayan-inspired recipe (Bean Stew). - To develop food preparation skills such as chopping, measuring and mixing. - To follow a recipe and cook a dish. - To taste and evaluate their dish. 	<p>The Hoppings- Can we design a fairground?</p> <p>Understand what 'The Hoppings' is; design a variety of structures; measure, mark and cut wood; use pulleys, cams, levers and linkages.</p> <p>Lesson 1: Research (existing products)</p> <ul style="list-style-type: none"> - To explore 'The Hoppings' and different types of fairground rides and how they work. <p>Lesson 2: Explore & Test</p> <ul style="list-style-type: none"> - To understand how gears can enable movement in a model. <p>Lesson 3: Design</p> <ul style="list-style-type: none"> - To create multiple sketches and design a fairground ride that includes movement. <p>Lesson 4: Make</p> <ul style="list-style-type: none"> - To build a model following their design, integrating gears. <p>Lesson 5: Make</p>	<p>The Digital World- Can we create an electronic alarm?</p> <p>Use Crumble; apply understanding of design; programme, apply monitoring and control settings.</p> <ul style="list-style-type: none"> - To understand the basic concept of an electronic alarm and its purpose. - To understand basic circuit diagrams and symbols (explore Crumble). - To design a basic electronic alarm, applying knowledge of components and materials. - To construct an electronic alarm based on their designs. - To test and evaluate the functionality of their alarm systems. - To reflect on the design process used.



		<ul style="list-style-type: none">- To continue adding features to their model, including any aesthetic enhancement. Lesson 6: Evaluate <ul style="list-style-type: none">- To test and evaluate a model.	
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