Endeavour Primary School

	Autumn 1	Autumn 2	Spring 2	Summer 2
Year 1	<u>Nutrition</u> Healthy Heroes Make a healthy meal. Tier 2 vocabulary: organise, equipment Technical vocabulary: healthy, diet, food groups, nutrition, prepare, cut, rinse, slice Children create a shared design as a class. Children learn how to use a knife safely. Children **make a salad**. Children complete a shared evaluation. ● Children learn the characteristics of a healthy snack - balanced plate. ● Children evaluate existing sandwiches on offer according to how balanced they are. ● Children create success criteria for their design. ● Children design a healthy sandwich based on their success criteria. ● Children experiment with a range of tools in order to make a prototype, evaluating the effectiveness of each choice. ● Children use their chosen tools to make their design. ● Children test their products on a 'focus group', survey responses and evaluate their product.	<u>Structure</u> Once Upon a time Tier 2 vocabulary: outcome, construction Technical vocabulary: structure, frame, freestanding, buttress, join Make a strong, stiff and stable house so that the wolf can't blow it down. ● Children investigate the design characteristics of strong structures by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate existing designs. ● Children create success criteria for their design. ● Children design a house, incorporating techniques to make their design stronger, stiffer and more stable. ● Children create their design. ● Children test and evaluate the effectiveness of their design and make adaptations to their plan. ● Children label their design and send it to the three little pigs, telling them how to make a strong, stable house.	<u>Mechanisms</u> Fire Fire Tier 2 vocabulary: theme, method Technical vocabulary: push, pull, lever, slider, pivot, slot Slider – picture to educate Year R on the Great Fire of London Design: Children carry out shared design with their teacher. Make: Children create a slider to retell the story of GFoL. Evaluate: Children evaluate the effectiveness of their slider. ● Children investigate the design characteristics of a slider by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate the ways that a slider supports the retelling of a story. ● Children create success criteria for a slider. ● Children design their still frame and slider to retell the story of the GFoL. ● Children create their still frame and slider. ● Children use their scene to retell the story of the GFoL. ● Children evaluate the effectiveness of their slider and make adaptations to their plan.	<u>Textiles</u> Eye Spy Coin purse for spending money when being a tourist. running stitch Tier 2 vocabulary: style, bond Technical vocabulary: felt, cotton, tools, mark out, decorate Children design, make and evaluate a coin purse, using stitching to join fabric together. Children learn to use running stitch to join seams. ● Children evaluate the design of coin purses according to their aesthetics and sensory experience. ● Children create a success criteria and design a coin purses that meet it. ● Children practice and develop fluency in running stitch and closing off. ● Children make their coin purse, according to their design. ● Children evaluate their final product according to how well the purse served them during their school trip.
Year 2		<u>Nutrition</u> All creatures Great and Small Children learn where food comes from (farm or factory). Design, make and evaluate a healthy sandwich/wrap for a day out - **balanced**. Tier 2 vocabulary: potential, select Technical vocabulary: hygiene, healthy, nutrition, portion, balanced diet, measuring. ● Children learn the characteristics of a healthy snack - balanced plate. ● Children evaluate existing sandwiches on offer according to how balanced they are. ● Children create success criteria for their design. ● Children design a healthy sandwich based on their success criteria. ● Children experiment with a range of tools in order to make a prototype, evaluating the effectiveness of each choice. ● Children use their chosen tools to make their design. ● Children test their products on a 'focus group', survey responses and evaluate their product.	<u>Mechanisms</u> Discrete Tier 2 vocabulary: research, transport Technical vocabulary: mechanism, wheel, axle, chassis, friction Wheels and Axles – build a buggy for a farmer or tourist Design: Children design a buggy, considering the purpose. Make: Children create a buggy with wheels and axles. Evaluate: Children evaluate the effectiveness of their wheels and axles. ● Children investigate the design characteristics of wheels and axles by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate the ways that an axle supports a vehicle to move freely. ● Children create success criteria for wheels and axles. ● Children design their vehicles. ● Children create their vehicles. ● Children test and evaluate the effectiveness of their vehicle and make adaptations to their plan. ● Children design a poster to market their vehicle, emphasising the features from the success criteria.	<u>Mechanisms</u> Celebration card Tier 2 vocabulary: stability, cultural Technical vocabulary: sliders, lever, split pin, pivot, mechanism Sliders and levers – split pin - RE-related Design: Children design a card, considering the purpose. Make: Children create a celebration card with a slider and a lever. Evaluate: Children evaluate the effectiveness of their sliders and levers. ● Children investigate the design characteristics of cards with sliders and levers by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate the ways that sliders and levers can complement each other.. ● Children create success criteria for a celebration card. ● Children design their slider and lever. ● Children create their cards. ● Children test and evaluate the effectiveness of their cards and make adaptations to their plan. ● Children design a poster to market their card, emphasising the features from the success criteria.
Year 3		<u>Structure</u> All fun and games Tier 2 vocabulary: stability, concept Technical vocabulary: user, purpose, product, function, Shell structure, three-dimensionaL, (3D) shape, material, stiffen, recycle, reuse, net, font, lettering, text	<u>Nutrition</u> Ice Trap Tier 2 vocabulary: develop, energy Technical vocabulary: healthy, protein, snack, prototype, sugar, stored, transport	<u>Mechanisms</u> Lever/linkage Tier 2 vocabulary: automatic, precise Technical vocabulary: sliders, lever, split pin, fulcrum, pivot, mechanism

		Board game - Strength, reinforce, choose from a range of tools ● Children investigate the design characteristics of strong structures by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate existing designs. ● Children create success criteria for their design. ● Children design a house, selecting from a range of tools and incorporating techniques to reinforce and make their design stronger, stiffer. ● Children create their design. ● Children test and evaluate the effectiveness of their design and make adaptations to their plan.	Design, make and evaluate a **healthy snack that can travel well to a cold climate** (for an expedition to Antarctica). (energy bar, oats, no added sugar, seeds, fruit, may use golden syrup/honey) ● Children investigate the characteristics of a healthy snack - nutritional values. ● Children evaluate the appropriateness of existing snacks in terms of how easily they can be stored and transported to a cold climate - structure e.g. yoghurt Vs fresh fruit Vs granola bar. ● Children create success criteria for their design. ● Children design a healthy, portable snack, based on their success criteria. ● Children experiment with a range of tools in order to make a prototype, evaluating the effectiveness of each choice. ● **Children experiment with the quantities to make an effective consistency.** ● Children use their chosen tools to make their design. ● Children test their products on a 'focus group', survey responses and evaluate their product.	Children design, make and evaluate a linkage and lever mechanism to communicate a story with more complexity. Design ideas: (plants, light, The Promise, The Dark) ● Children investigate the design characteristics of linkage and lever mechanisms by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate the ways that levers link together. ● Children create success criteria for their design. ● Children design a mechanism with a linkage and lever mechanism. ● Children create their design. ● Children test and evaluate the effectiveness of their design and make adaptations to their plan.
Year 4		<u>Textiles</u> Dragonology Tier 2 vocabulary: create, appearance Technical vocabulary: strength, seam, seam allowance, finishing techniques, functional, pattern pieces. Make a dragon toy Children design, make and evaluate a soft toy, using stitching to join fabric together. Children learn to use running, cross and blanket stitch to join seams and to attach items. ● Children evaluate the design of soft toys according to their aesthetics and sensory experience. ● Children create a success criteria and design a dragon toy that meets it. ● Children practice and develop fluency in a range of stitching and closing off. ● Children make their dragon toys, according to their design. ● Children share their dragon toy with a peer and survey their impression. ● Children evaluate their final product according to the success criteria and their peer's feedback.	<u>Nutrition</u> fat is good - healthy fats - source of sugar matters energy balls to sustain an adventure (range of dried fruit, seeds, cocoa, maybe avocado) Tier 2 vocabulary: aid, consequences Technical vocabulary: nutritional information, informed decision, healthy fats, sustain, prototype. ● Children investigate the characteristics of a healthy snack - nutritional values. ● Children evaluate the appropriateness of existing snacks **in terms of the source of sugar and fat.** ● Children create success criteria for their design. ● Children design a healthy, portable snack, based on their success criteria. ● Children experiment with a range of tools in order to make a prototype, evaluating the effectiveness of each choice. ● **Children experiment with quantities <u>and ratios</u> to make an effective consistency (I need 1 cup X, ½ cup Y and 1 cup Z)** ● Children use their chosen tools to make their design. ● Children test their products on a 'focus group', survey responses and evaluate their product.	<u>Mechanisms</u> electrical systems make a torch Tier 2 vocabulary: consider, compare Technical vocabulary: circuit, switch, bulb, torch, conductor, insulator, paperclip Children design, make and evaluate a torch - spy torch - Alex Ryder link. ● Children investigate the design characteristics of torches by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate existing designs.. ● Children create success criteria for their design, consider the use of the torch for Alex Ryder. ● Children design a torch, incorporating switches, bulbs, buzzers and motors. ● Children create their design. ● Children test and evaluate the effectiveness of their design and make adaptations to their plan. ● Children write a letter to Alex Ryder to persuade him to choose their torch for his next mission.
Year 5		<u>Mechanisms</u> Space Tier 2 vocabulary: process, communication Technical vocabulary: pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor circuit, switch, circuit, electrical system, input, process, output Moon Buggy Make a moon Buggy – pulleys and gears ● Children investigate the design characteristics of pulleys and gears by examining a range of existing designs. They answer questions like 'What's the same? What's different?' ● Children evaluate existing designs. ● Children create success criteria for their design. ● Children design a moon buggy, incorporating pulleys and gears. ● Children create their design. ● Children test and evaluate the effectiveness of their design and make adaptations to their plan. ● Children write a letter to NASA/Space X to pitch their product.	<u>Textiles</u> Tier 2 vocabulary: sequence, typical Technical vocabulary: running stitch, cross stitch, blanket stitch, seam, seam allowance, finishing techniques, pattern pieces, appearance Children design, make and evaluate a soft toy, using stitching to join fabric together. Children apply running, cross and blanket stitch with increasing levels of success to join seams and to attach items. Children learn how to close off. ● Children evaluate the design of soft toys according to their aesthetics and sensory experience. ● Children create a success criteria and design a cuddly toy that meets it. ● Children practice and develop fluency in a range of stitching and closing off. ● Children make their cuddly toys, according to their design. ● Children share their cuddly toy with a peer and survey their impression. ● Children evaluate their final product according to the success criteria and their peer's feedback.	<u>Nutrition</u> Tier 2 vocabulary: supply, alternative, aid Technical vocabulary: gut health, digestion, blood sugar levels, starchy foods, nutritional values. Sugary, starchy foods cause inflammation that lead to health problems. We want to aid digestion and maintain balanced blood sugar. Let's find a tasty alternative to a standard pizza base (cauliflower). ● Children investigate the characteristics of a healthy snack - nutritional values and learn that sugary, starchy foods create inflammation and health problems. ● Children evaluate the appropriateness of existing alternatives to dough pizza bases and make a choice. ● Children create success criteria for their pizza design, including balance of toppings. ● Children design a healthy pizza (cauliflower base and toppings) based on their success criteria. ● Children use their chosen tools to make their design. ● Children follow a recipe to make a cauliflower pizza base. ● Children test their products on a 'focus group', survey responses and evaluate their product and cooking process, ready for Y6.
Year 6		<u>Nutrition</u> Tier 2 vocabulary: sustainable, trend Technical vocabulary: carbon footprint, climate, seasonal, calculate, gut inflammation Food is grown, reared and/or processed. Not all food is grown in the UK. Food availability is linked to seasonality. Seasonality affects carbon footprint because food that is not in season or does not grow in the UK is transported from different climates. Vegetables, dairy and meat foods have different carbon footprints (because of trophic levels). ● Children learn the foods that are/are not grown in the UK. ● Children learn where foods come from that are not grown in the UK and/or are not in season in the UK.	<u>Structure</u> Tier 2 vocabulary: temporary, substitution Technical vocabulary: frame structure, stiffen, strengthen, reinforce,, stability, shape, join, permanent Children design, make and evaluate a Marble Run for Year R children to use. Children apply their knowledge of how to strengthen, stiffen and reinforce more complex structures. Success criteria: strong, stable, free-standing, fun, lasts at least 5 seconds. (Glue guns, focus on problem solving, flexible thinking, trial and error) ● Children evaluate the characteristics of existing examples. ● Children design a marble run to meet the success criteria, generating drawings to model their ideas - consider complex options e.g. including levers.	<u>Physical Programming</u> <u>Teach Computing Unit</u>

		● Children learn to roughly calculate the carbon footprint of different foods, according to the season e.g. tomatoes in season Vs out of season or mango at any time; e.g. meat > dairy > vegetables ● Children create a success criteria for their pizzas e.g. low inflammation, low carbon footprint, healthy fats. ● Children design a cauliflower-based pizza with a sustainable carbon footprint. ● Children use their chosen tools to make their design. ● Children follow a recipe to make a cauliflower pizza base. ● Children test their products on a 'focus group', survey responses and evaluate their product and cooking process,	● Children select from and use a range of tools and equipment to cut, shape, join and finish their marble run. ● Children share their marble run with children from Year R and evaluate their product.	