

Design and Technology



WHINGATE'S CURRICULUM AIMS

Communicate
Live Healthily
Accept and Respect
Understand the Wider World
Dream Big
Explore



VOCABULARY- Making and Evaluating

FS / KS1	Y3 / 4	Y5 / 6
<p>Year 1- planning, investigating design, evaluate, make, user, purpose, ideas, product,</p> <p>Year 2- investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>	<p>Year 3- user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing</p> <p>Year 4- evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations</p>	<p>Year 5- design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype</p> <p>Year 6- function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype</p>
<p>slider, lever, pivot, slot, bridge/guide card, masking tape, paper fastener, join pull, push, up, down, straight, curve, forwards, backwards, design, make, evaluate, user, purpose, ideas, design criteria, product, function, cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder, fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients, planning, investigating tasting,</p>	<p>fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, user, purpose, design, model, evaluate, prototype, annotated sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces, name of products, names of equipment, utensils, techniques and ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet, mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating, user, purpose, function, prototype, shell structure, three-dimensional (3-D)</p>	<p>ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble, design specification, innovative, research, evaluate, design brief, seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern piece, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings, iron transfer paper, frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, series circuit, parallel circuit, names of switches and components, input device, output device, system, monitor,</p>

arranging, popular, names of existing products, joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish, vehicle, wheel, axle, axle holder, chassis, body, cab, assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism, names of tools, equipment and materials used			shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision, series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device			control, program, flowchart, pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output		
Area of subject	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
AUTUMN Developing, Planning and communicating ideas. Working with tools, equipment, materials and components to make quality products (including food). Evaluating Products.	<u>PEE</u> - Showing curiosity - Exploring - Using senses - Engaged/focused <u>ALM</u> - Making choices - Persevering - Attentive/focused - Confident/I can attitude - Self-satisfaction /pride - Achieving <u>C+CT</u> - Thinking of ideas - Problem solving/logical - Adapting /changing - Predicting - Describing - Planning - Evaluating - Collaborating	<u>Cooking</u> - design appealing products - generate ideas through investigation of food. - communicate ideas - use utensils to peel, slice, squeeze, grate and chop safely. - choose a range of foods. - evaluate food using the senses. - evaluate ideas and finished products.	<u>Food</u> - design appealing products - generate a range of ideas through investigation of food. - communicate and justify their ideas. - use utensils to peel, slice, squeeze, grate and chop safely. - choose a range of foods according to their characteristics. - taste and evaluate a range of fruit and vegetables to determine their preferences. - evaluate ideas	<u>Electrical Systems</u> -Gather information about needs and wants to develop a design criteria, to create a product for a specific audience. -Generate, develop and communicate ideas through discussion, sketches and diagrams. -Order the stages of making. -Select appropriate materials based on functional and aesthetic qualities. -Investigate and evaluate current products.	<u>Food - Healthy and Varied Diet</u> -Generate and clarify ideas through discussion with peers and target audience, considering appearance, taste, texture, and aroma, whilst considering user and purpose. -Communicate a range of ideas with justification through annotated sketches and use of ICT. -Select and use appropriate tools and equipment from a wide range to prepare and combine ingredients. -Select from a range of	<u>Mechanical Systems - Pulleys and Gears</u> -Carry out research into users needs and existing products using surveys, interviews and questionnaires. -Generate, develop and model innovative ideas, through discussion, drawing, templates, mock-ups and sketches, using computer aided design where appropriate. -Competently select from and use tools to accurately measure, mark out, cut, shape and join materials to make a accurately assembled product. -Compare the final product to the original design specification. -Test products with intended user and critically evaluate the quality of the design, manufacture, functionality and fitness for purpose.	<u>Textiles</u> -Carry out research into users needs and existing products using surveys, interviews and questionnaires. -Generate, develop and model innovative ideas, through discussion, drawing, templates, mock-ups and sketches, using computer aided design where appropriate. -Competently select from and use tools to accurately measure, mark out, cut, shape and join materials to make a frame work. -Use finishing and decorative techniques. -Investigate and analyse textile products link to their final product.	

			and finished products.		ingredients to make appropriate food products, considering their source. -Evaluate throughout the process. -Carry out sensory evaluations.		-Compare the final product to the original design specification.
Vocabulary		fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients,	fruit and vegetable names, names of equipment and utensils sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients	series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device	name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output	seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,
SPRING Developing, Planning and communicating ideas. Working with tools, equipment, materials and components to make quality products (including food).	<u>PEE</u> - Showing curiosity - Exploring - Using senses - Engaged/focused <u>ALM</u> - Making choices - Persevering - Attentive/focused - Confident/I can attitude	<u>Textiles</u> - design a functional, appealing and purposeful product. - generate, model and communicate ideas through talking, drawing, templates	<u>Free Standing Structures and Wheels and Axels</u> - generate initial ideas through talking and using own experiences. - develop mock-ups.	<u>Structures (Plastic Junk Modelling)</u> -Work collaboratively through discussion to create design ideas. -Select and use appropriate tools to measure, mark out, cut, score, shape and assemble.	<u>Mechanical Systems including levers and linkages (Pop-up books)</u> -Generate realistic design ideas, focusing on the needs to the user. -Use annotated sketches to communicate ideas.	<u>Electrical Systems</u> -Use research to develop a design specification for a functional product that responds to changes in the environment. -Generate and develop innovative ideas, share and clarify these through discussion. - Communicate ideas through annotated sketches, pictorial representations of	<u>Cooking (Seasonal food choices).</u> - generate innovate ideas through research and discussion with peers and adults to develop a design brief. - explore a range of initial ideas, making design decisions linked to user and purpose.

Evaluating Products.	<ul style="list-style-type: none"> - Self-satisfaction /pride - Achieving <u>C+CT</u> - Thinking of ideas - Problem solving/logical - Adapting /changing - Predicting - Describing - Planning - Evaluating - Collaborating 	<ul style="list-style-type: none"> - select from a range of tools for cutting, joining and finishing. - use textiles according to characteristics. - evaluate a range of products as well as their own against criteria. 	<ul style="list-style-type: none"> - select from a range of tools and skills to perform practical tasks. - use a range of new and re-claimed materials and components according to their characteristics. - plan by suggesting what to do next. - evaluate their product in relation to effectiveness. 	<ul style="list-style-type: none"> -Justify choices of materials according to functionality. -Test their own products against their criteria and intended purpose. 	<ul style="list-style-type: none"> -Order the stages of making. -Produce prototypes. -Select and use appropriate tools with accuracy. -Select from and use finishing techniques. -Investigate and evaluate current products, use this to generate a suitable design criteria to work towards. 	<p>electrical circuits and circuit diagrams.</p> <ul style="list-style-type: none"> -Competently select and accurately assemble materials, and securely connect electrical components to produce a reliable, functional product. -Create and modify a computer control program to enable electrical an electrical product to work automatically. -Continually evaluate and modify the working features of the product to match the initial design specification. -Test the system to demonstrate its effectiveness for intended user and purpose. 	<ul style="list-style-type: none"> - use words, annotated sketches and ICT to communicate ideas, providing reasoning. - write step by step recipes including a list of ingredients, equipment and utensils - use appropriate utensils accurately to measure and combine ingredients. - make and decorate and present their food product appropriately. - carry out sensory evaluations of a range of relevant products. Competently record using graphs/tables/ charts - evaluate the final product with reference back to the design specification, taking into account the views of others and identifying improvements. - understand how key chefs have influenced eating habits to promote varied diets.
Vocabulary		joining and finishing techniques, tools, fabrics and components, template, pattern pieces,	cut, fold, join, fix structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface,	shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out,	mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output linear, rotary,	reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control,	ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs fat, sugar, carbohydrate, protein, vitamins, nutrients,

		mark out, join, decorate, finish	thinner, thicker, corner, point, straight, curved, metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder	scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision,	oscillating, reciprocating	program, system, input device, output device, series circuit, parallel circuit	nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble
SUMMER Developing, Planning and communicating ideas. Working with tools, equipment, materials and components to make quality products (including food). Evaluating Products.	<u>PEE</u> - Showing curiosity - Exploring - Using senses - Engaged/focused <u>ALM</u> - Making choices - Persevering - Attentive/focused - Confident/I can attitude - Self-satisfaction /pride - Achieving <u>C+CT</u> - Thinking of ideas - Problem solving/logical - Adapting /changing - Predicting - Describing - Planning - Evaluating - Collaborating	<u>Mechanisms including Levers and Sliders</u> - generate ideas based on simple design criteria. - develop, model and communicate their ideas. - plan by suggesting what to do next. - select and use tools, explaining their choices. - use simple finishing techniques. - explore a range of everyday products - evaluate their product in relation to effectiveness.	<u>Mechanisms including Levers and Sliders</u> • Explore and use wheels, axles and axle holders. • Distinguish between fixed and freely moving axles. • Know and use technical vocabulary relevant to the project.	<u>Food - Healthy and Varied Diet</u> -Generate and clarify ideas through discussion with peers, considering appearance, taste, texture, and aroma, whilst considering user and purpose. -Communicate ideas through annotated sketches and use of ICT. -Select and use appropriate tools and equipment to prepare and combine ingredients. -Select from a range of ingredients to make appropriate food products. -Evaluate throughout the process. -Carry out sensory evaluations.	<u>Textiles</u> -Generate design ideas that fit the purpose and appeal to the user. - Produce annotated sketches and patterns . -Select and use appropriate fabrics and materials to ensure the product fits the purpose. -Investigate and evaluate current products, use this to generate a suitable design criteria to work towards. -Select fabrics and fasteners based on their functionality.	<u>Cooking (Celebrating Culture).</u> - generate innovate ideas through research and discussion with peers and adults to develop a design brief. - explore a range of initial ideas, making design decisions linked to user and purpose. - use words, annotated sketches and ICT to communicate ideas. - write step by step recipes including a list of ingredients, equipment and utensils - use appropriate utensils accurately to measure and combine ingredients. - make and decorate and present their food product appropriately. - carry out sensory evaluations of a range of relevant products. Record using graphs/tables/ charts - evaluate the final product with reference back to the design specification/	<u>Structures</u> -Carry out research into users needs and existing products using surveys, interviews and questionnaires. -Develop a simple design specification. -Generate, develop and model innovative ideas, through discussion, prototypes and sketches. -Formulate a clear plan for production, considering order of tasks and list of resources. -Competently select from and use tools to accurately measure, mark out, cut, shape and join materials to make a frame work. -Use finishing and decorative techniques. -Critically evaluate own product.
Vocabulary		slider, lever, pivot, slot,	vehicle, wheel, axle, axle holder,	name of products, names of equipment,	fabric, names of fabrics, fastening,	name of products, names of equipment, utensils, techniques and ingredients	frame structure, stiffen, strengthen,

		bridge/guide, card, masking tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards	chassis, body, cab assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used	utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet	compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance	texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied die	reinforce, triangulation, stability, shape, join, temporary, permanent
--	--	---	---	---	--	--	--