

THE PRIORY CATHOLIC VOLUNTARY ACADEMY

Design & Technology Key Knowledge Progression Ladders

Term	EYFS Key Knowledge	Year 1 Key Knowledge	Year 2 Key Knowledge
Autumn	<p>(Aut 1) All About Me</p> <ul style="list-style-type: none"> Knows to construct with materials Knows how to join pieces together. Knows to use tools for a purpose <p>Knowledge vocabulary: Attach, join, connect, together, paper, sequins, colours, pens, cut, snip, scissors, hole punch, create, split pins, bend, turn, through, hole, around, wrap, look like</p> <p>(Aut 2) Light and Dark</p> <ul style="list-style-type: none"> Knows how to create representations of people, objects and things Knows how to manipulate materials Knows to think of a planned result <p>Knowledge vocabulary: Attach, join, connect, together, collect, colour, pens, paints, design, evaluate, consider, think about, cutters, tools, shapes, shape cutters, sticky tape, glue</p>	<p>(Aut 2) Playground Design - Framework Structures</p> <ul style="list-style-type: none"> Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary related to the topic: <p>Knowledge vocabulary: Structure, tower, framework, weak, strong, base, top, underneath side, edge, surface, hinge, thinner, thicker, corner, point, straight, curved, pivot point, wood, metal, plastic, card, 2d shape names.</p>	<p>(Aut 1) Healthy Fruit Salad – Food</p> <ul style="list-style-type: none"> Identify a range of fruit/vegetables and know where a range of fruit/vegetables comes from e.g. farmed or grown at home. Know the basic principles of a healthy and varied diet including how fruit and vegetables are part of the Eatwell plate. Know and use technical vocabulary related to the topic: <p>Knowledge vocabulary: Fruit and veg names, names of equipment and utensils, sensory vocabulary: soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard. Flesh, skin, seed, pip, core, slicing peeling, cutting, squeezing, healthy diet, vitamins, minerals.</p>
Spring	<p>(Sp 1) Our Heroes</p> <ul style="list-style-type: none"> Knows how to create representations of people, objects and things Knows to think about their work before they construct Knows to use tools appropriately <p>Knowledge vocabulary: Attach, join, connect, together, paper, sequins, colours, pens, cut, snip, scissors, hole punch, create, split pins, bend, turn, through, hole, around, wrap, tie, push</p> <p>(Sp 2) Growing and Changing</p> <ul style="list-style-type: none"> Knows to use appropriate resources Knows to adapt their work as they complete the activity Knows to think about the uses of materials 	<p>(Spr 2) Healthy Flapjacks – Food (baking)</p> <ul style="list-style-type: none"> Know how to combine and mix cereal and binding ingredients to bake a flapjack. Know the basic principles of a healthy and varied diet including how biscuits are part of the Eatwell plate. Know and use technical vocabulary related to the topic: <p>Knowledge vocabulary: Cereal (oats), fat, sugar, mix, bake, bowl, weigh, scales, stir, fold, tray, cup.</p>	<p>(Spr 2) Vehicles (A) – Mechanisms Wheels & Axles</p> <ul style="list-style-type: none"> To recognise wheels, axles and axle holders. To distinguish between fixed and freely moving axles. Know and use technical vocabulary related to the topic: <p>Knowledge vocabulary: Vehicle, axle, wheel, axle holder, chassis, body, cab, assembly, cutting, joining, shaping, finishing, fixed, free, moving, mechanism.</p>

	Knowledge vocabulary: Attach, join, connect, together, paper, sequins, colours, pens, cut, snip, scissors, around, wrap, camouflage, hidden		
Summer	(Sum 1) Hot and Cold <ul style="list-style-type: none"> • Uses tools for a purpose • Knows to adapt to different tools for the technique they require • Knows how to manipulate materials • Knows how to use a variety of materials • Knows about the function of materials Knowledge vocabulary: Attach, join, connect, together, paper, colours, pens, cut, snip, scissors, create, around, wrap, look like, mould, clay, firm (Sum 2) Seaside <ul style="list-style-type: none"> • Knows how to design for a purpose • Knows about the texture of different materials • Knows about the function of different tools • Knows about the use of colour for objects • Knows how to stick materials together Knowledge vocabulary: Attach, join, connect, together, paper, colours, pens, cut, snip, scissors, create, around, wrap, look like, glitter, sticks, print, pattern, design, collage.	(Sum 1) Moving Pictures – Sliders and Levers <ul style="list-style-type: none"> • To recognise sliders and levers. • To know that different mechanisms make different types of movement. • Know and use technical vocabulary related to the topic: Knowledge vocabulary: Slider, lever, pivot, slot, bridge/guide, card, masking tape, paper fastener, join, push, pull, up, down, straight, curve, forwards, backwards.	(Sum 2) Lighthouse Keeper' Hand Puppets – Textiles <ul style="list-style-type: none"> • Know how to make a simple textile product using a template to create two identical shapes. • Know how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. • Know how to use some finishing techniques e.g. buttons, fabric crayons, ribbon, stitching. • Know how to use technical vocabulary related to the topic: Knowledge vocabulary: Names of existing products, joining and finishing techniques, tools and fabric, template, pattern piece, mark out, join, stitch, sew, decorate, finish, fit, prototype.

Key Stage Two Design & Technology Curriculum Map and Key Knowledge Progression Framework

Term	Year 3 Key Knowledge	Year 4 Key Knowledge	Year 5 Key Knowledge	Year 6 Key Knowledge
Autumn	<p>(Aut 1) Healthy Cereal Bars – Food (Bake) & Package</p> <ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and cook food. Know about a range of fresh and processed ingredients appropriate to their product and whether they are grown, caught or reared. Know about the essential elements of a healthy diet using the eatwell plate. Know how to package using a shell structure - nets Know and use relevant technical and sensory vocabulary related to the topic: <p>Knowledge Vocabulary: name of products, equipment, utensils, techniques and ingredients: (cereal, oats, wheat, corn, seeds, fruit, dried or fresh fruit, bowls, trays, mixer, spoons, scales) Texture, taste, sweet, savoury, appearance, preference, greasy, moist, dry. Shell structure, 3-d shape, net, tab, join</p>	<p>(Aut 2) WW2 Nottingham Air Raid Shelters – Wooden Framework Structures</p> <ul style="list-style-type: none"> Know how to strengthen, stiffen and reinforce 3-D frameworks. Know and use technical vocabulary related to the topic: <p>Knowledge Vocabulary: frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, prototype.</p>	<p>(Aut 2) Moving Animal Toys – Cams Mechanisms</p> <ul style="list-style-type: none"> Know how to use cams, axles and cranks to control movement. To distinguish between rotary and linear, oscillating and reciprocating movement. Know and use technical vocabulary related to the topic: <p>Knowledge Vocabulary: cam, movement, linear motion, rotary motion, off-centre, crank handle, axle, frame structure, cam mechanism, cam follower</p>	<p>(Aut 2) Brazilian Cheese Breads – Food (Dough)</p> <ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and cook food – including heat sources. Know about a range of fresh and processed ingredients appropriate to their product and whether they are grown, caught or reared. Know about seasonality in relation to food products and the source of different foods. Know and use relevant technical and sensory vocabulary: <p>Knowledge Vocabulary: name of products, equipment, utensils, techniques and ingredients: yeast, dough, bran, flour, wholemeal, soda, baking soda, spice, herbs, fat, sugar, carbohydrate, dairy, protein, vegetable, vitamins, nutrition, allergy, intolerance, savoury, source, seasonality, utensil, combine, knead, stir, whisk, pour, measure, weigh, roll, shape, sprinkle.</p>
Spring	<p>Spr 2 Cushions – Textiles</p> <ul style="list-style-type: none"> Know how to make a costume textile product from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Know and use technical vocabulary related to the topic: <p>Knowledge Vocabulary: pattern pieces, fabric, seam, seam allowance, wadding, reinforce, right side, wrong</p>	<p>(Spr2) Torches – Electrical Systems</p> <ul style="list-style-type: none"> Know how to construct a simple series circuit, understanding conductors insulators, open and closed switches to control a light bulb. Know and use technical vocabulary related to the topic: <p>Knowledge Vocabulary: series circuit, fault, connection, toggle switch, push to make switch, push to break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, croc clip, control, input device, output device.</p>	<p>(Spr 2) Fairground – Control Technology (STEM LEGO Provider) Mechanisms & Electrical Control</p> <ul style="list-style-type: none"> Know that mechanical and electrical systems have an input, process and an output. Know how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know how to use computing to program, control and monitor their product Know and use technical vocabulary related to the topic: 	<p>(Spr 1) Savoury food</p> <ul style="list-style-type: none"> Know about the nutritional value of different meals and recipes using the eatwell principles. Know how to use appropriate equipment and utensils to prepare and cook food – including heat sources. Know about a range of fresh and processed ingredients appropriate to their product and whether they are grown, caught or reared. Know about seasonality in relation to food products and the source of different foods.

	side, hem, template, pins, needles, thread, fastenings, fabric names.		Knowledge Vocabulary: series and parallel circuit, toggle and pressure switch, input device, output device, system, monitor, control, program, flowchart, pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor.	<ul style="list-style-type: none"> Know and use relevant technical and sensory vocabulary: Knowledge Vocabulary: name of products, equipment, utensils, techniques and ingredients: eatwell – carbohydrate, sugar, salt, fat, protein, vitamins, minerals, preservatives, tolerance, allergy, food traffic light coding.
Summer	(Sum 2) Egyptian Story Books – Levers & Linkages <ul style="list-style-type: none"> To understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary related to the topic: Knowledge Vocabulary: mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating	(Sum 2) African Fruit Sundae – Food <ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and cook food. Know the source of food including airmiles and country of origin. Know about a range of fresh and processed ingredients appropriate to their product and whether they are grown, caught or reared. Know and use relevant technical and sensory vocabulary: Knowledge Vocabulary: name of products, equipment, utensils, techniques and ingredients: (range of tropical fruits) Texture, taste, sweet, sour, appearance, preference, moist, dry, soft, crunchy.	(Sum 2) Savoury Food – Pastry – Food <ul style="list-style-type: none"> Know how to use appropriate equipment and utensils to prepare and cook food – including heat sources. Know about a range of fresh and processed ingredients appropriate to their product and whether they are grown, caught or reared. Know about seasonality in relation to food products and the source of different foods. Know and use relevant technical and sensory vocabulary: Knowledge Vocabulary: name of products, equipment, utensils, techniques and ingredients: spice, herbs, meat – protein, fat, sugar, carbohydrate, dairy, protein, vegetable, salad, vitamins, nutrition, allergy, intolerance, savoury, source, seasonality, utensil, combine, stir, whisk, pour, measure, weigh, roll, shape, sprinkle.	(Sum 1) Controllable Vehicles – Wheels and Axles Framework, Mechanisms & Electrical Control <ul style="list-style-type: none"> Know that mechanical and electrical systems have an input, process and an output. Know how to create a framework and shell structure. Know how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary related to the topic. Knowledge Vocabulary: series and parallel circuit, toggle and pressure switch, input device, output device, system, pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, wheel, motor, net, shell, framework, chassis, triangulation, strengthen, reinforce.