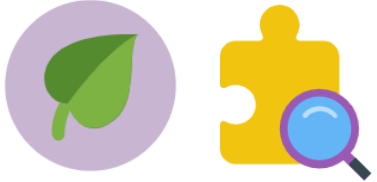




Year 3/4 DT Medium Term Plan - Cycle A

	Autumn 2 - Electrical systems	Spring 2 - Textiles	Summer 2 - Food and Nutrition
Big Concept			
Big Question	Can I select materials and components to make my light work?	How can I join materials together using different stitching techniques?	Are all the items we grow in the garden edible?
Vision and purpose	Children will enhance their knowledge and understanding of electrical systems. Children will develop understanding about series and parallel circuits and different types of switches. They will then be given the chance to apply their knowledge about electric circuits in a purposeful way by designing and making a battery operated light which will be controlled by a homemade switch. Children will decide upon the design criteria for the light by considering who will use it, where it will be used and what for.	Children will learn how to make juggling balls. They will start by exploring and evaluating different juggling balls. Children will then be given a design brief, asking them to design and make a circus themed juggling ball. A hemming and overcast stitch will be introduced during this unit. Children will learn about decoration techniques; getting the chance to use tie-dye and fabric paints.	Children will learn where and how a variety of ingredients are grown. Firstly, children will learn how to plant seeds and care for their plants so they yield produce that can be used in their cooking. They will learn how to cook with the ingredients they are growing; following recipes and using different kitchen equipment. The lessons take into account the appropriate safety and hygiene rules.
Prior knowledge	- Children can build structures, exploring how it can be made stronger, stiffer and more stable. - They can evaluate their work against their design criteria. - They can, with confidence, talk about their ideas, saying what I like and dislike about them	- Children can measure, cut and score with some accuracy - Children can use running stitch - Children can demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques.	- Children can explain why it is important that everyone should eat at least five portions of fruit and vegetables every day. - Children can explain that food has to be farmed, grown elsewhere (e.g. home) or caught. - They can name and sort foods into the five groups in 'The Eat well plate'
Knowledge skill	I can explain how technology has helped shape the world we live in. I can make a product which contains a working circuit to light a bulb and evaluate it based on my design criteria.	I can analyse and test a range of existing products.	I know that we need a varied balanced diet and know the correct proportions



Key vocabulary



	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	Template, stitches, fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance, hemming and overcast stitch.	peeling, chopping, slicing, grating, mixing, Ingredients, weigh, mix, evaluate, research, flavour, healthy, 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 name of products,
Final outcome	To design and make a battery operated light which will be controlled by a homemade switch.	To make juggling balls using a variety of stitching techniques.	To learn how to cook with the ingredients they are growing; following recipes and using different kitchen equipment.
Cross Curricular links	Science- Electricity. Reinforce sticky knowledge around circuits. Explore and make a series and parallel circuit, diagnosing faults when necessary, and follow instructions to make a selection of different switches.	Art- A visit from a circus skills workshop would be an excellent way to engage children and for them to learn more about juggling. A talk or demonstration session from a local textile artist would help the children to understand more about the skills involved in decorating fabric.	Geography-Invite a local beekeeper into school and visit a local allotment. English - Relevant books include; Grow It Eat It by The Royal Horticultural Society, Gardening Projects for Kids by Jenny Hendy, Gardening in School All Year Round by Clare Revere, The Playground Potting Shed: Gardening with children made simple by Dominic Murphy, I Will Not Ever Never Eat a Tomato by Lauren Child and Beware! Killer Tomatoes by Jeremy Strong
Resources	Bulbs, bulb holders, a range of shapes and sizes of batteries and battery holders, paperclips, split pins a range of cardboard cylinders, a range of other small cardboard boxes, a range of small plastic bottles, stiff/corrugated card, plastic, sticky/masking tape, PVA glue, thin wooden strips, bubble wrap. Tools: scissors, rulers, pencils.	Elastic bands/string, Pipettes/squirting bottles, Sealable sandwich bags, Dyes, Table coverings, paint shirts, plastic gloves. White cotton textile pieces pre-washed and cut to roughly 30cm x 15 cm pieces, Needles, threads., Fillings: lentils, sand, rice, dried beans, Paper funnels.	Kitchen tools: Potato masher, small glass, safe knife, chopping board, large glass/ ceramic bowl, whisk., Food: milk, strawberry yogurt, ripe bananas, large ripe strawberries. Different varieties of tomatoes for tasting, Compost, tomato seeds, trowels, plastic/gardening glove,