A Curriculum For Hindhayes - Building Design and Technology Knowledge

Hindhayes Learning Experiences EYFS	Autumn 1	Autumn 2	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Preparing for KS1	High quality provision indoors and out to support the use of materials, tools and skills.	**Mechanisms** Lift the flap. Cutting, folding and joining with glue or tape	**Textiles** Binca bauble	High quality provision indoors and out to support the use of materials, tools and skills.	**Structures** Build a home (enclosure) for a farm animal or ladybird.	High quality provision indoors and out to support the use of materials, tools and skills.	**Food** Fruit / vegetable kebabs / exploring fruit/vegetables
Materials	Paper, card, tissue, crepe, foam	clay, salt dough, play dough	Binca, wool	Paper, card, split pins, glue sticks, play dough, biscuit dough, flour, butter, sugar	Classroom construction toys such as lego, building blocks and natural materials.	Gardening materials	Fruits / Vegetables
Tools	Scissors straight line, zig zag, wavy line, fringe with snips.	Mark making tools in clay or dough.	Large needles	Rolling pin, biscuit cutters, large mixing spoons, scissors, glue, split pins		trowels, rakes, snips, secateurs, hack saws, pestle and mortars.	Knives, graters, zesters, juicers, peelers
Skills	Snipping, cutting, folding, making, gluing, joining	designing, making, evaluating, folding, cutting, joining	Up and down large stitches	Cutting, joining, sticking, mixing, rolling, whisking	Designing, making, evaluating, balancing,	Digging, snipping, cutting, pruning, sawing, grinding	cutting (with a knife), grating. peeling, zesting, juicing, designing, making, evaluating

National Curriculum Statutory Requirements	
	Design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and technology. Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing) Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria. Explore and use mechanisms (for example, levers, sliders, wheels and axels) in their products. Build structures, exploring how they can be made stronger, stiffer and more stable.

	Autumn - Mechanisms - Links to History/Art	Autumn 2 - Textiles	Spring - Structures - Links to Science/ History	Summer - Food - Link to Geography/Science
Hindhayes Sticky Knowledge Year 1 Year 2	A mechanism is where materials or components are connected to make movement. Designers plan and invent products for a purpose or to solve a problem. Designers evaluate their ideas and products to help make their design better. Materials can be fixed together using different joining techniques and equipment. Moving Pictures A slider is a type of mechanism. A slider is a rigid bar which moves forwards and backwards or up and down in a straight line. Effective sliders should move smoothly. Effective sliders should work many times. Parts of a slider are the bar, the slot and the bridge. Pop up picture Pop -ups are a type of mechanism. Pop ups are made with folding and cutting techniques that cause things to life, pop-up, rise or unfold when a page is opened. Effective pop -ups should move smoothly. Effective pop-ups should work many times. A box fold cam be used to make a pop-up. A concertina fold can be used to make a pop-up.	Fabric can be used to make a product. Fabric pieces can be joined together using stitches. Using stiches to join is called sewing. There are different types of stitches. Christmas Bauble Two pieces of fabric can be joined using an over stitch. Two pieces of fabric can be joined using a running stitch.	Designers plan and invent products for a purpose or to solve a problem. Materials have a range of properties that make then suitable for different purposes Materials can be fixed together using different joining techniques and equipment. Designers evaluate products or prototypes to help make their design better. Shell Structures - Buildings A shell structure is hollow inside with a thin outer covering. A strong structure has a lot of strength and will not break under force and pressure. Brick binding can be used to make a structure more stable. A stable structure is not likely to change and will last a long time. A free-standing structure is not supported by something else. Frame Structures - Towers Engineers solve problems. Engineers design structures including towers. A tower must support itself without falling over. The base of a tower is the key to a stable structure (the wider the base, the more stable the structure). Triangles can make stronger structures. Buttresses can provide extra support at the bottom of a structure. Stacking materials make stronger structures. Engineers evaluate to improve their product design. Engineers evaluate products or prototypes to help make their design better. And test and redevelop their designs.	Food needs to be prepared hygienically When working with food it is important to use the tools correctly and safely. The bridge hold technique holds the food between the fingers and thumb. The bridge hold ensures that fingers are out of the way as the knife cuts the food. Food should be cut on a flat and stable surface. You need to wash your hands before preparing food. Ice lollies Ice lollies need to be frozen solid. Ice lollies can be made from different liquids and solids. Indian Food There are food dishes which are native to India. Food comes from plants and animals/ Food has to be farmed, grown or caught, Food can be sorted into 5 food groups (link to Science)