Rednal Hill Infant School Design and Technology Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	**Practical Knowledge – Fine Motor Skills, Tools and Exploration.** Adults model and scaffold the use of one-handed tools (scissors) and provide opportunities for children to develop fine motor skills with a preference for a dominant hand. Children are given opportunities to explore materials in the creative and construction continuous provision.		**Practical Knowledge – Exploration.** Children explore different materials freely, in order to develop their own ideas about how to use them and what to make. Children are given opportunities to develop making skills for a purpose, taking inspiration from their teachers or own experiences.		**Disciplinary Knowledge – Design, make and give meaning.** Children develop their own ideas through modelmaking - construction and creative materials. They decide which materials to use to express their ideas. Children begin to join different materials and explore different textures.	
Vocabulary	scissors, cut, snip, open, close, paper, blocks, lego		idea, model, build, make, scissors, cut, snip, glue, paper, tissue paper, paint		idea, model, join, glue, masking tape, paint, details, material – cardboard/ plastic	
Reception	**Practical Knowledge – Fine Motor Skills, Tools and Exploration.** Children are given opportunities to develop fine motor skills using different tools. They develop skills such as cutting and strengthen their pincer grip through manipulating materials and other tools. **Disciplinary Knowledge – Structures.** Children are provided with a range of materials to construct with. **Practical Knowledge – Food.** Children learn about food hygiene and healthy and unhealthy foods. They use practical skills to prepare vegetables and make soup for Harvest.		**Practical Knowledge – Joining, Materials, Food.** Children are taught different techniques for joining materials. They recognise that different materials have different purposes. Children are given further opportunities to prepare food and bake using a range of different ingredients. They discuss balanced diets. (bread, cakes) **Disciplinary Knowledge – Structures and Mechanisms.** Children are able to say what model/ small world they have made using construction kits to reach a design e.g. tower, house, castle. Children are taught how to use split pins to create a moving part.		**Disciplinary Knowledge – Design, make, evaluate.** Junk modelling -children think and discuss what they want to make, discuss problems and how to solve them and reflect on their creative ideas – evaluating orally. **Practical Knowledge – Food.** Children learn about where different foods come from and which food group they belong to.	
Vocabulary	scissors, cut, snip, straight, curved, pinch, tweezers, pincer grip, strengthen, playdough, twist, roll, ingredients, cut,		join, attach, masking tape, sellotape, glue stick, PVA glue, hole punch, split pin, moving part, stable, balanced,		design, ideas, think, plan, change, improve, masking tape, join, tabs, paint,	

	slice, knife, germs, vegetables, lego, wooden blocks, magnetic tiles		model, safe, tall, short, ingredients, weighing, scales, mix, stir, cut, slice, fruit		details, cardboard, plastic, farm, animals, meat, dairy, carbohydrate, grow, produce	
Year 1		**Mechanisms – Sliders (Christmas Cards)**		**Mechanisms- Wheels and Axels (Car Fest)**		**Food and Nutrition – Healthy Snack**
Vocabulary		purpose, inspiration, materials, design, feature, techniques, product, rear, guide bridge, slider, measure, cut, assemble		purpose, inspiration, materials, design, feature, techniques, product, intended user, chassis, attach, axel, rotating, force, measure, balanced, equal, in-line, secured, firmly attached		purpose, inspiration, materials, design, feature, techniques, product, intended user, healthy, unhealthy, balanced diet, hygiene, slice, cut, freeze, drag, bridge hold,
Year 2		**Mechanisms – Leavers (Christmas Cards)**	**Structures – Stability (Towers)**		**Structures – Strength (Bridges)**	**Food and Nutrition – Designing a Portable Snack (Forest School Day)**
Vocabulary		purpose, inspiration, materials, design, feature, techniques, product, intended user, rigid, pivot, input, output, measure, split pin, score, proportion, puncture	purpose, inspiration, materials, design, feature, techniques, product, intended user, base, narrow, centre of gravity, braced, balanced		purpose, inspiration, materials, design, feature, techniques, product, intended user, beam bridge, arch bridge, suspended bridge	purpose, inspiration, materials, design, feature, techniques, product, intended user, healthy, unhealthy, balanced diet, hygiene, portable