



Progression in Design and Technology – The Mill Academy

	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
School project 1	Baking bread Making Blackberry crumble	Baking bread Making Blackberry crumble	Sandwiches and fruit skewers	Superhero Vehicles	Design a meal	Designing and making an Italian dish	Rotating solar System	Design and make an ancient civilisation mask
Topic	Harvest	Harvest	Paddington	Superheroes	Archaeology Rocks	Rampaging Romans	Biologists and astrologists unite	Back to the Future
	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T
School project 2	Access to the art studio, craft techniques, threading, encouraging verbal design, make, construction, lego, small world, through child led experiences. Adults building on individual level of skill, through observation and modelling	Access to the art studio, craft techniques, threading, encouraging verbal design, make, construction, lego, small world, through child led experiences. Adults building on individual level of skill, through observation and modelling	Houses	Building Castles	Layered Rainforest	Musical Instruments	Build an unsinkable ship	Anderson Shelters Time travelling machine
Topic			The Great Fire of London	Exploring Castles	Maya Mission	Sound and music	Crossing the Atlantic	War of the World Science circuits



			S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T
School project 3	Access to the art studio, craft techniques, threading, encouraging verbal design, make, construction, lego, small world, through child led experiences Adults building on individual level of skill, through observation and modelling	Access to the art studio, craft techniques, threading, encouraging verbal design, make, construction, lego, small world, through child led experiences Adults building on individual level of skill, through observation and modelling	Building Pirate Ship	Sewing flowers	Magnetic Robots	Up cycling old t-shirts into bags	Making Greek food	Making food using WW2 rations
			S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T	S/M/E/F/T
Topic			Finding Neverland Pirates/mermaids	The Secret Garden	Mechanoid Magnetism	Save the planet	Zeros to Heroes	War of the World
Design	Develop their own ideas and then decide which materials to use to express them	- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function;	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 communication technology.	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design				

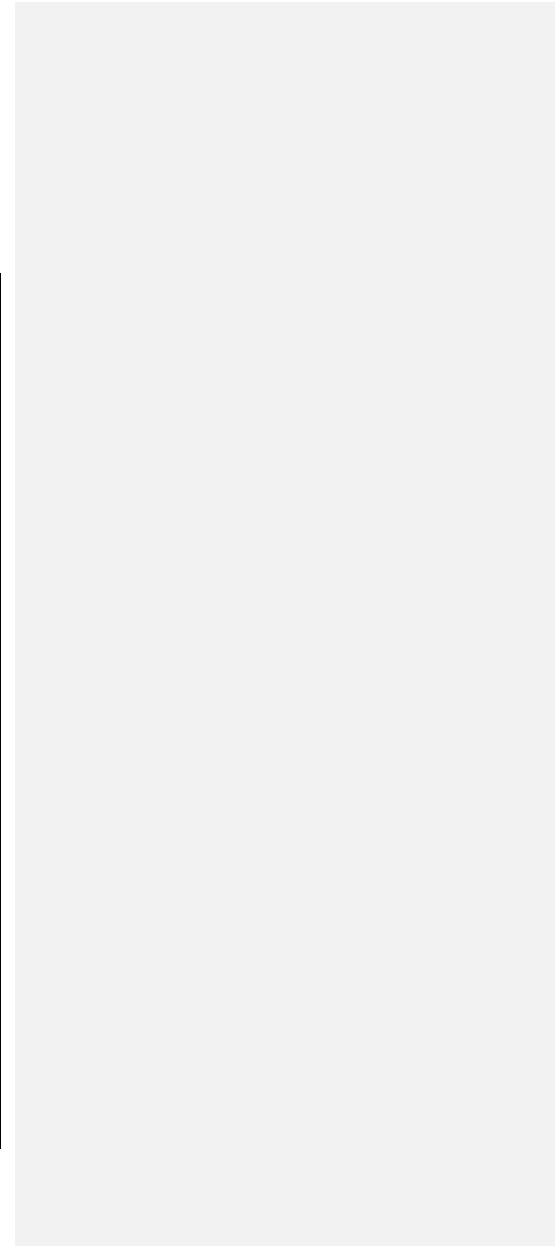


		- Share their creations, explaining the process they have used						
Vocabulary	Idea, build, materials	Idea shape construct build plan, evaluate Wood card paper plastic straw, snip, cut, bend, twist, plait,	Idea, shape, make, construct, purpose, template, use, appearance, transparent, opaque, wood, plastic, absorbent, decoration, pattern,	Customer, aim, develop, wheel, wool, style, lever, survey	Appealing, brief, construction, client, purpose, criteria, develop, evaluate, material, modify, research, safety, pulleys,	Suitable, enlarged, market research, proportion, circuit, questionnaire	Functional, usability, dimension, innovate, manufacture, modification, process, product, quality, specification, consumer, exploded drawing, malleable, friction, force, resistance,	Aesthetic, ergonomic, prototype, cross section, dismantle, linear,
Make	Explore different materials freely, in order to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to	- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; -	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		select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities			

Commented [KG1]:



	<p>express them.</p> <p>Join different materials and explore different textures</p> <p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary</p>							
Vocabulary			Equipment, tools, cut, join, finish, construct, material, glue, attach, staple, glue gun, scissors, ruler	Saw, sew, axle, joint, screwdriver	Glue, strengthening, right angle,	Hammer, laminate,	Hinges, assemble, adhesive, dowel, glass paper, coping saw, acrylic	Carpentry, timber, grain, screw, nails, chisel, bench hook, smoothing plane, knot, hacksaw
Evaluate			Explore and evaluate a range of existing products		Investigate and analyse a range of existing products			





			Evaluate their ideas and products against design criteria	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
Vocabulary			review, improve,	evaluate, illustrate, critical, analyse
Technical Knowledge			Build structures, exploring how they can be made stronger, stiffer and more stable Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products
Vocabulary			Stronger, Lever, sliders, wheels, axles, structures, stiffer, stable, reinforce, mechanisms.	Reinforces, Lever, pulleys, linkages, cams, gears Series circuit, complex
Cooking & Nutrition.			Use the basic principles of a healthy and varied diet to prepare dishes Understand where food comes from.	Understand and apply the principles of a healthy and varied diet Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
Vocabulary			fruit, vegetable, healthy, , look, taste, texture, smell, size, shape, colour, ingredients, techniques, chopping,	portion, grating, caught, grown, standard measures, labelled increments, prepare, cook, Energy, savoury, diet, variety, melting, boiling, simmering, source, grown, carbohydrate, protein, dairy, fat, vitamin, mineral, crumbly, crunchy, greasy, creamy, gooey, moist, Accompaniments, calories, garnish, cubing, sensory characteristics, zest, processed, organic, vegetarian, vegan, starchy, stodgy, creaming, sustainability,



			peeling, , measure, weigh, safety, hygiene, non- standard, farmed, , grown, , prepare, cook, recipe, , heat, sweet, savoury, recipe	recipe, consistency, heat source, recipe		mushy, slicing, mixing, spreading, raw, reared, caught, allergies, kneading, baking	pescatarian, intolerance, free range	
--	--	--	---	---	--	---	--	--

