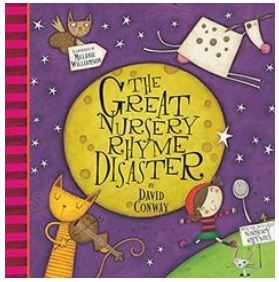
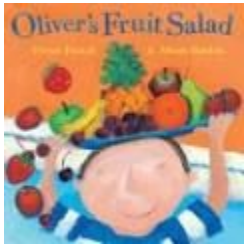
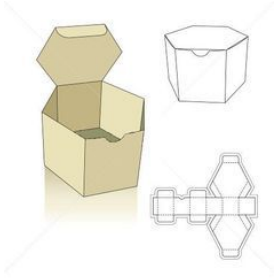
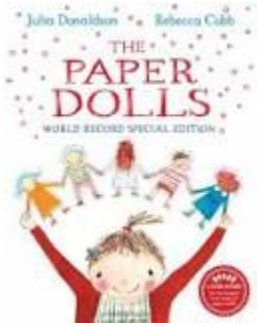
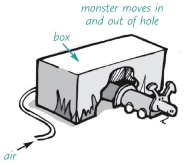
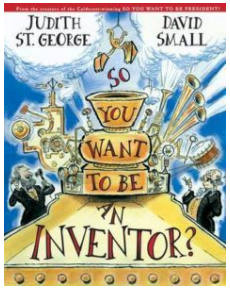
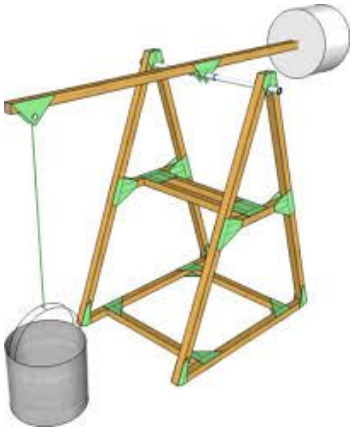
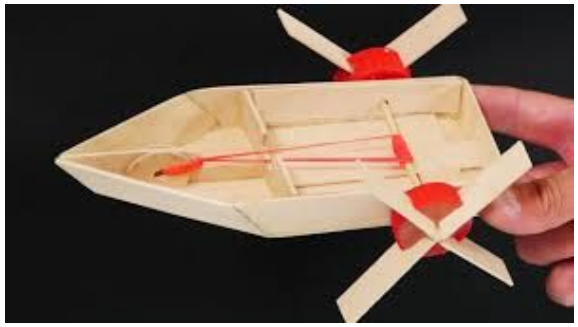
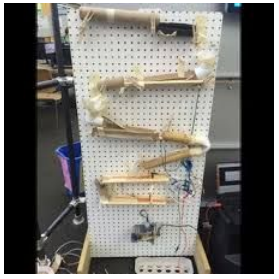
Curriculum Narrative: Design Technology (Stibbard)

DT	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Summer 2
Year 1 	**<u>Mechanisms</u>** **Make a moving picture** **E.g. disappearing Bee** Using paper, paper fasteners and card explore making sliders, levers and pivots and wheel mechanisms. Text - The Great Nursery Rhyme  Disaster by David Conway	**<u>Construction</u>** **Make a bird feeder** Research different bird feeders. Explore how to recycle objects. Design and make. Linked with Science topic.  	**<u>Structures</u>** **Build a strong bridge** Begin to build structures, joining components together to create a finished product. Text - The three Billy Goats Gruff 	**<u>Cooking and Nutrition</u>** **Make a smoothie** Make a salad (including fruit salad) Research favourite fruit/vegetable Evaluate product. Text - Oliver's Fruit salad & Olver's Vegetables. Linked to English - writing instructions  	**<u>Mechanisms</u>** **Make a moving vehicle** Wheels and Axles Design a moon boogie to help Bob with his jobs on the Moon. Investigate how wheels move Text: Man on the moon  	**<u>Textiles</u>** sewing and making **Make a fabric keyring for bookbag** Sew a sea picture e.g. a fish, boat, crab etc Explore different fabrics. Sew and join fabrics using running stitch. Linked to English - looking after the planet 
Year 2	**<u>Constructions</u>** **Design and Make a plaque** Simple Salt Dough	**<u>Constructions</u>** **Christmas Gift Boxes from nets**	**<u>Textiles</u>** **Paper Dolls** Design and make clothes. Demonstrate how to cut, shape and join	**<u>Mechanisms</u>** **Royal Corgi Dog House** Explore syringe and tube models	**<u>Cooking and Nutrition</u>** **Make wraps and pockets** (tortillas, pita bread)	**<u>Structures</u>** **Lighthouse** Build lighthouse structures, using yoghurt pots , plastic tubing, elastic

	Discover that materials can change and that the change is irreversible Assemble, join and combine materials Vocab: dough, roll, pinch, shaping, cutting, joining, finishing Text	**with tabs**  Design and make purposeful, functional appealing products for themselves and others based on a design criteria. E.g. pyramid, prism, square top pyramid, flower top, curved side, triangular side nets.	fabric to make a simple product. Use basic sewing techniques. Story The Paper Dolls by Julia Donaldson 	and use mechanisms in their products. 	Use a basic principle of a healthy and varied diet to prepare dishes.	bands, matchsticks exploring how they can be made stronger, stiffer and more stable.
Year 3	**<u>Structures:</u>** **Design and make a Shelter.** Explore shelters and their purposes as part of children's Welly Day sessions. Use research to design and then build own shelters in	**<u>Christmas Stockings</u>** **Design and sew a Christmas stocking.** Develop basic sewing skills to sew together two pieces of fabric and create a functional and visually appealing	**<u>Mechanisms:</u>** **Design and make a Pop-Up Book with a range of pop-up mechanisms.** Practice making different pop up mechanisms and test on Reception Class - use this feedback to create	**<u>Structures:</u>** **Design and make a mini Greenhouse.** Work as a team to design and make a mini-greenhouse to house seeds for science **VOCAB:** Structure	**<u>Evaluate:</u>** **Explore key Victorian designers who have helped shape the world** Explore Victorian designs and designers, explore the purpose of designing something to solve a problem.	**<u>Cooking and Nutrition:</u>** **Design and make a healthy sandwich** Discuss healthy foods, use the food pyramid to explain. Design, make and evaluate a healthy sandwich.purposes wonderful weds

	small groups using natural materials. **VOCAB:** Shelters Purpose Design Plans Evaluations Improvements Build Natural materials 	Christmas Stocking. **VOCAB:** Sewing, functionality, visual appeal, stitches, templates, fabric Needles, thread, decorations. 	… pop up books as a small group **VOCAB:** Design criteria, Critique, Evaluate , Purposeful, Functional , Appealing, Product, Strengthen, Reinforce, Mechanical 	Solid Transparent Material Absorbs heat 	Great Exhibition Style to present in school foyer **VOCAB:** Inventors Revolutionary Designs inventions William Fox Talbot (Camera) Thomas Crapper (flushing toilets) Karl Benz (first motorcar) Isambard Kingdom Brunel (bridges) 	**VOCAB:** Design Sandwich Evaluate Smell Taste Texture 
Year 4	**<u>Textiles:</u>** **Design and make an Anglo Saxon money holder** Build on sewing skills to create a	**<u>Structures:</u>** **Design, make and evaluate a game.** Design and make a toy or game that will	**<u>Mechanisms:</u>** **Design and make a Shaduf. Evaluate its ability to move water from one place to another.** Design a self standing structure which		**<u>Cooking and Nutrition:</u>** **Follow recipes to make beetroot cake.**	**<u>Electrical systems:</u>** **Design and make a torch with a working switch.** Use a range of

	drawstring bag, suitable for holding coins. **VOCAB:** Sewing, functionality, running stitch, fabric, needles, pins, thread, draw string, seam allowance, reverse. 	amuse and intrigue a bed-ridden patient approximately nine years of age and that can be played with on a bed tray **VOCAB:** safe, convenient, toy, rules, template, square, preference practical, cost effective, hand/eye skill, right angle, sawing board, game, bored thinking skill, chance cutting mat, hacksaw, strip 	contains a pivot mechanism, enabling water to be moved from one place to another. **VOCAB:** lever, fulcrum, counterweight, effort, load, purpose, design, construct, test, evaluate. 	Use recipes from WW2 to make wartime beetroot cake with limited rationed ingredients. **VOCAB:** ration, beet, blend, puree, fold, butter, sugar, eggs, beetroot, vinegar, milk, flour, cocoa powder, baking powder. 	materials to create a torch. Torch should include a working electrical circuit and a switch to turn the torch on and off. **VOCAB:** reflector, circuit, switch, bulb, wires. 
Year 5	**<u>Mechanisms:</u>** **Design and make a boat powered by elastic band mechanisms** Children will work together to investigate how the design of a boat can affect the mass it can hold and learn how a simple mechanism can be used to power a boat. They will work independently to make, test and refine their own elastic band powered boat. **VOCAB:** Float, sink, force, water resistance, upthrust, cargo, paddle boards,		**<u>Control:</u>** **Use Makey Makey to control musical instruments** Children learn to use control equipment (Makey Makey) and use it to make a working piano. **VOCAB:** Conductive material,	**<u>Control:</u>** **Design, make test and improve a marble run** Children work collaboratively to make a marble run following a specific design brief. They need to test and refine their product throughout the process.	**<u>Mechanisms:</u> Design and make a toy using a CAM mechanism** Children will understand the use of a CAM mechanism and explore how CAMs work before designing a ‘victorian style’ toy using a working CAM mechanism. Children will make and evaluate a ‘victorian style’ toy using a working CAM mechanism. **VOCAB:** Mechanical, cam (round, egg, ellipse, eccentric, hexagonal, snail, pear), friction drive, follower, slider, handle, phase, 10mm wood, 5mm dowel,	

	oars, kinetic energy, potential energy, tilt, stabilise, test, evaluate, adapt, refine, adjust, improve 	input device, touchpads, Coding, crocodile clips, connector wires, USB cable, Earth, ground, grounded, key, non conductor, 	**VOCAB:** Conductive material, input device, touchpads, Coding, crocodile clips, connector wires, USB cable, Earth, ground, grounded, key, non conductor, 	strengthen, support, clamp, bench hook, hacksaw, drill, drill bit, tubing, audience. 
Year 6	**<u>Textiles:</u>** **Design and make a decorated phone sock or cushion cover.** Learn how to make textile products using stitches to join fabrics and a range of decorating techniques including buttons, applique and a selection of different stitches. **VOCAB:** Needle, Thread, Knot, Back stitch, Running stitch, Cross stitch, Whip stitch, Button, Applique, template, seam allowance,	**<u>Cooking and Nutrition:</u>** **Design and make Iraqi style breads.** Investigate current Iraqi bread and compare to other breads from around the world. Look at the ingredients and where they are grown. Design own bread with a choice of shape and some variable ingredients. Make, taste and evaluate bread. **VOCAB:** Halaal, Wheat, Yeast, Khubz Tannour, Samoon, Carbohydrate		**<u>Electrical systems:</u>** **Design and make a toy or game which incorporates an electrical system.** To use their science knowledge of electrical circuits and components to create a game/ toy containing an electrical system. In groups research and select electrical games/ toys/ themes currently available and conduct market research across class. Make and evaluate (using testing by children from other classes to inform their evaluation) **VOCAB:** Series circuit, wire,

	 	 	Switch, battery, buzzer, bulb, motor.Market research