

## Y4 design technology overview 2019-20 Structures: textiles; Mechanisms: Thames Travellers; Control: electrical

DT	Desired Skills	Approaches to	Desired	Approaches	Curricula Materials	Assessed through (T1 T2 T3)		
Activity		Developing Skills	Knowledge and	Developing		Exploring	Responding	Designing
			Understanding	Knowledge and Understanding		Creating Evaluating		
Responding	<ul> <li>Discuss observed pieces</li> <li>Follow guidance from tutor (techniques, top-tips)</li> <li>Experiment with own designs, compositions and constructions</li> <li>Communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> <li>Know about great artists, craft makers, designers, architects, engineers</li> <li>Explore sketch books of professional designers.</li> <li>Make comparisons between genres</li> <li>Understand historical and cultural development of design technology</li> </ul>	<ul> <li>Class/group tuition with technical guidance</li> <li>Class/group tuition with reference to historical information, images</li> </ul>	<ul> <li>Understanding history/origins of artists, craft makers, designers, architects, engineers</li> <li>Understanding history of art forms and purpose</li> <li>Understanding how design technology reflects a community/ culture</li> <li>Understand it keeps their traditions alive</li> <li>Understand how design technology in cultures/ communities is used (functional, spiritual, worship, rites of passage, wellbeing)</li> </ul>	<ul> <li>Class teacher led presentations with children note-taking</li> <li>Group research on history/ origins etc and masterpieces from masters in their fields</li> </ul>	s       Unit 4a Structures: textiles         • Develop a greater level of understanding and skill in working with textiles         • Model their ideas, tested appropriate fabrics and justified choices; have         • Decorate the product choosing from a range of decorative techniques         • Make accurate drawings and identified the stages of making their design criteria; have         • Work independently in designing and making a money container that is well finished, works well and is suitable for the identified user         RE DT /ART DAY WHOLE SCHOOL: Prayer Spaces: Wire sculpturing         n       TERM2:         Unit 4b Mechanisms       video clips         • Produce step-by-step plans for the production of their chosen designs         • Combine several types of mechanisms within their book pages         dual s to       Evaluate their ideas systematically and make on- going modifications         • Create a product that functions well and is visually	Most children will be able to (working at)	not yet be able	Some children are confidently able to (exceeding)
Designing/ Technical knowledge	<ul> <li>Keep sketch book (creative journal, visual diary)/record observations</li> <li>apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>understand and use mechanical systems in their products [eg gears, pulleys, cams, levers and linkages]</li> <li>understand and use electrical systems in their products [eg series circuits incorporating switches, bulbs, buzzers and motors]</li> <li>apply their understanding of computing to program, monitor and control their products</li> <li>Plan/ explore/ experiment with designs</li> </ul>	<ul> <li>Class/group sketching activities</li> </ul>		<ul> <li>Workshops in groups / as a class</li> <li>Presentations to class/assemblies</li> <li>Class, then group/ individual opportunities to create compositions</li> </ul>				
Creating	<ul> <li>Compose own composition/construction following planned design</li> <li>Generate, develop, model</li> <li>Compose in more than medium (food, textile, paper, clay, metal, wood)</li> <li>Select from and use a wider range of tools and equipment to perform practical tasks [cutting, shaping, joining and finishing], accurately</li> <li>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</li> </ul>	<ul> <li>Class, then group opportunities for field studies and internal compositions from stimuli</li> </ul>						
Critically Observing/ Evaluating	<ul> <li>Investigate and analyse a range of existing products</li> <li>understand how key events and individuals in design and technology have helped shape the world</li> <li>Observe someone else's chosen design piece/other constructions</li> <li>Critically evaluate own compositions/ construction against design criteria</li> <li>evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</li> </ul>	<ul> <li>Observational opportunities to be part of each lesson</li> </ul>		<ul> <li>Chosen piece to present to class for observing with reasons why it has been chosen and a background to piece selected</li> </ul>	<ul> <li>TERM3:</li> <li><u>Unit 4c Control: electrical</u> video clips</li> <li>Consider a wider range of specialist functions for the torch they make <i>eg means of storage, improved reflection for the light bulb, water-proof qualities</i> and</li> <li>produced a torch that is innovative, aesthetically pleasing and ergonomically sound</li> <li>RE ART DAY WHOLE SCHOOL: Worship: Music instrument</li> </ul>			
SMSC	<ul> <li>Research in pairs or individually according to given briefs wider knowledge of Y4 design technology curriculum</li> <li>Enjoyment and relaxation design technology can offer</li> </ul>	<ul> <li>Research using given websites and finding own information</li> </ul>						