



Y5 design technology overview 2019-20 [Control: mechanisms](#); [Food: bread](#); [Structures: musical instruments](#)

DT Activity	Desired Skills	Approaches to Developing Skills	Desired Knowledge and Understanding	Approaches Developing Knowledge and Understanding	Curricula Materials	Assessed through (T1 T2 T3)		
						Exploring Creating	Responding Evaluating	Designing
Responding	<ul style="list-style-type: none"> Discuss observed pieces Follow guidance from tutor (techniques, top-tips) Experiment with own designs, compositions and constructions Communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology 	<ul style="list-style-type: none"> Class/group tuition with technical guidance 	<ul style="list-style-type: none"> Understanding history/origins of artists, craft makers, designers, architects, engineers 	<ul style="list-style-type: none"> Class teacher led presentations with children note-taking Group research on history/origins etc and masterpieces from masters in their fields 	<p>TERM1: Unit 5c: Control: mechanisms: moving toys</p> <ul style="list-style-type: none"> Research websites for and through discussion, have sketched ideas using their knowledge of mechanisms Test ideas through prototypes before developing a set of plans to work from Make a model which is accurate, functions well and is well finished and appropriate for the user Compare their model to the original plan when evaluating and suggest ways to improve the finished product Consider other ideas for cam-based toys <p>RE DT /ART DAY WHOLE SCHOOL: Prayer Spaces: Wire sculpturing</p> <p>TERM2: Unit 5b Food: bread video clips</p> <ul style="list-style-type: none"> Use findings from their investigative work to draw up a specification for a new bread product Have drawn on their understanding of the characteristics and properties of foods to select appropriate ingredients Work accurately to make bread products that match the sensory properties required Implemented improvements as the design developed <p>RE ART DAY WHOLE SCHOOL: Prayer of Thanks: Plants of our Garden</p> <p>TERM3: Unit 5a Structures: musical instruments video clips/ images of masterpieces</p> <ul style="list-style-type: none"> Produce annotated diagrams showing several alternative musical instrument ideas Set out a detailed step-by-step approach to how their instrument will be made and listed tools and materials to be used Understand how the choice of materials and the accuracy with which an instrument is made will affect the quality of the finished product Modify their instrument, where necessary, as they go along Identify what is and not working well with their chosen instrument designs and final outcome, and appreciate how important high-quality making is to an instrument <p>RE ART DAY WHOLE SCHOOL: Worship: Music instrument</p>	<p>Most children will be able to... (working at)</p> <p>Some children will not yet be able to...(working towards)</p> <p>Some children are confidently able to... (exceeding)</p>		
Exploring	<ul style="list-style-type: none"> Know about great artists, craft makers, designers, architects, engineers Explore sketch books of professional designers. Make comparisons between genres Understand historical and cultural development of design technology 	<ul style="list-style-type: none"> Class/group tuition with reference to historical information, images 	<ul style="list-style-type: none"> Understanding history of art forms and purpose Understanding how design technology reflects a community/culture 					
Designing/ Technical knowledge	<ul style="list-style-type: none"> Keep sketch book (creative journal, visual diary) Record observations Apply their understanding of how to strengthen, stiffen and reinforce more complex structures Understand and use mechanical systems in their products [eg gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [eg series circuits incorporating switches, bulbs, buzzers and motors] Apply understanding of computing to program, monitor and control products Plan/ explore/ experiment with designs 	<ul style="list-style-type: none"> Class/group sketching activities 	<ul style="list-style-type: none"> Understand it keeps their traditions alive Understand how design technology in cultures/ communities is used (functional, spiritual, worship, rites of passage, wellbeing) 	<ul style="list-style-type: none"> Workshops in groups / as a class Presentations to class/assemblies Class, then group/ individual opportunities to create compositions 				
Creating	<ul style="list-style-type: none"> Compose own composition/construction following planned design Generate, develop, model Compose in more than medium (food, textile, paper, clay, metal, wood) 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 	<ul style="list-style-type: none"> Class, then group opportunities for field studies and internal compositions from stimuli 						
Critically Observing/ Evaluating	<ul style="list-style-type: none"> Investigate and analyse a range of existing products Understand how key events and individuals in design and technology have helped shape the world Observe someone else's chosen design piece/ other constructions Critically evaluate own compositions/ construction against design criteria Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work 	<ul style="list-style-type: none"> Observational opportunities to be part of each lesson 						
SMSC	<ul style="list-style-type: none"> Working with others of different religious, ethnic and socioeconomic backgrounds, according to given briefs wider knowledge of Y5 DT curriculum Resolve conflicts and differing opinions should these arise Enjoyment and relaxation DT can offer Use of imagination and creativity Reflect on tasks Investigating and offering views on ethical issues in DT studied Opportunities to and willingness to explore and understand DT from a variety of cultural backgrounds 	<ul style="list-style-type: none"> Research using given websites and finding own information 						