What is design and technology? How do designers construct and apply

(Updated Sept 23)

At Broughton, we think about...

1)	2)	3)	4)	5)
Working safely, solving problems and choosing appropriate materials and ingredients.	**Comparing similarities and differences between existing designs and inventions, drawing conclusions about what works well and what could be improved.**	**How things work and how actions can cause change and large-scale movements.**	**The impact of significant individuals and events on the wider world and the study of successful real world inventions and products.**	**Using appropriate technical vocabulary, explaining processes and labelling/ annotating to convey thoughts and ideas.**

Where in our curriculum?

Year 1 - Spring 1 Choosing appropriate materials to build a robot. Solving rubbish/recycling problem at school.	**Year 1 - Autumn 2** Comparing past and present vehicles (including fire engines).	**Year 1 - Summer 1** Jamie Oliver - started the movement to improve the quality of schools meals across the country.	**Year 1 - Summer 1** Jamie Oliver - healthy school meals.	**Continuous** Appropriate subject-specific vocabulary, processes and labelling/annotating of work is taught, used and revisited throughout every unit and discipline of design and technology (see progression plans for more details).
Year 1 - Summer 1 Choosing healthy ingredients and solving problem for Bernie in school kitchen. Working safely with kitchen tools.	**Year 2 - Spring 1** Comparing real world examples of sliders and levers e.g. pop-up books etc.	**Year 2 - Summer 2** Alina Morse - developing healthier sweets for children to improve (or slow down) tooth decay.	**Year 2 - Spring 1** Eadweard Muybridge - moving pictures.	
Year 2 - Summer 1 Working safely with scissors and needles. Solving problems of surviving without the internet.	**Year 2 - Summer 1** Comparing similarities and differences of own puppets and Sooty and Sweep.	**Year 3 - Autumn 2** How do fastenings work? How did they change the design of clothing?	**Year 2 - Summer 1** Harry Corbett - Sooty and Sweep puppets.	
Year 2 - Summer 2 Working safely with kitchen tools. Solving allergy problems.	**Year 2 - Summer 2** Comparing chocolate bars to sugar-free chocolate bars (existing and ones created).	**Year 3 - Spring 2** Local vs imported food - do we to change/adapt? (Global warming).	**Year 2 - Summer 2** Alina Morse - healthier sweets for children.	
Year 3 - Summer 1 Choosing appropriate materials. Solving problem of plastic in our oceans.	**Year 3 - Summer 1** Comparing similarities and differences of a range of everyday objects containing levers or linkages.	**Year 3 - Summer 1** How do levers and linkages work? Where can we find them in the real world?	**Year 3 - Autumn 2** Bayeux Tapestry - major historical importance.	
Year 3 Summer 2 Choosing the most appropriate (sturdiest) materials. Solving planting problems for those without a garden or space.	**Year 5 - Autumn 1** Comparing past and present drawing (pens, pencils, computer-aided design).	**Year 4 - Autumn 2** How do lightbulbs work? How can we set up a circuit to control lights?	**Year 3 - Autumn 2** Development of fastenings over time e.g. buttons.	

Year 5 - Spring 1 Working safely with kitchen tools and appliances.	**Year 5 - Spring 1** Comparing similarities and differences of breads from different cultures.	**Year 6 - Autumn 1&2** How can computer-aided design be used to design, program and control lightbulbs, motors, cams etc.?	**Year 3 - Summer 1** Use of everyday items containing levers and linkages.	
Year 5 Summer 2 Solving problems by creating a holder for loose coins. Choosing appropriate materials to hold coins effectively and look aesthetically pleasing.	**Year 6 - Autumn 1&2** Comparing past and present popular fairground rides. Comparing similarities and differences of existing and created fairground rides.	**Year 6 - Summer 1** How do bridges support a heavy load?	**Year 3 - Summer 2** Norman Foster - one of Britain's most influence architects, designer of the Gherkin, Wembley etc.	
	Year 6 - Summer 1 Comparing similarities and differences of a range of bridges to see what keeps they stable and able to carry a heavy load.		**Year 4 - Autumn 2** Garrett Morgan - first three-way traffic signals.	
			Year 5 - Autumn 1 Ivan Sutherland - computer scientist and 'Sketchpad' program.	
			Year 5 - Spring 1 Paul Hollywood - known for bread recipes and hugely successful 'Great British Bake Off' television show.	
			Year 5 - Summer 2 William Morris - textile and wallpaper designs, some of which are still in use today.	
			Year 6 - Autumn 1&2 Julia Barfield and David Marks - married designer architects known for designing many successful buildings p, including The London Eye.	
			Year 6 - Summer 1 Zaha Hadid - internationally renowned architect.	