KFJS DT Curriculum Map		
In each project children: evaluate products before and after the design and making process.		
Year 4		
Project	**It's Christmas pop up cards (levers)**	**Buzz! Science and Electricity**
Key question	**Can I design a card with moving parts?**	**Can I design a game, which uses a circuit?**
Essential understanding	Use a lever to make something move Know that the position of the pivot will lead to a greater or lesser movement Discuss key points in design to show how it has shaped our world. This could include: <u>Mechanisms</u> The Wheel (3500BC) Gears (300BC) **Archimedes** (levers) <u>Control and Monitoring</u> Internet **Charles Babbage** (computer)	Design on paper a game which uses an electric circuit with reference to the audience Put electric circuit together eg using a buzzer Make a prototype of game Make adjustments as necessary Evaluate the finished product in terms of design and purpose
Purpose	Design a Christmas card, which has moving parts.	Design a game, which uses a circuit that can be played by one or more children.
Make	Card select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately	Junk modelling select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
Mechanical systems (e.g gears, pulleys, cams, levers)	Understand and use mechanical systems in their products (levers and linkage)	

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Electrical systems (e.g. circuits, switches, buzzers and motors)		Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Computer program, monitor and control		apply their understanding of computing to program, monitor and control their products.
Understand how key events and individuals in D&T have helped shape their world	Discuss key events and individuals (examples only) <u>Mechanisms</u> The Wheel (3500BC) Gears (300BC) **Archimedes** (levers) <u>Control and Monitoring</u> Internet **Charles Babbage** (computer)	
Skills	Generate ideas, considering the purposes for which they are designing Make labelled drawings from different views showing specific features Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Evaluate products and identify criteria that can be used for their own designs Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, to weave and knit	

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	Measure, tape or pin, cut and join fabric with some accuracy Use simple graphical communication techniques Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests	
Assessment	Can I design a card with moving parts?	Can I design a game with a circuit? (May be a verbal assessment)
WTS	Needed a lot of scaffolding and support to create moving parts in own card	Needed a lot of scaffolding and support
EXS	Can assemble basic linkages and meets the design brief	Basic but met the brief independently
GDS	Can assemble more complex linkages on a card, mainly independently	Circuit has extra features/ very confident