KFJS DT Curriculum Map	
In each project children: evaluate products before and after the design and making process.	
Year 6	
Project	**Bright sparks (Crumble kits)**
Key Question	**Can I design and construct a moving vehicle?**
Purpose	Design and construct a vehicle which is programmed by a computer
Essential understanding	Design a moving vehicle – car and trailer Consider how to make a product for a particular audience Use Crumble kit and explore how to program the car and trailer, building on skills from Year 4 Make the car and trailer using axles and wheels Fit circuit onto the car and trailer and test Make any necessary adjustments to the design Evaluate its effectiveness against design/purpose criteria Discuss key points in design to show how it has shaped our world. This could include: Control and Monitoring Microchip, Mobile Phone Ada Lovelace (Computer programming) Alan Turing Artificial Intelligence) Bill Gates (software)
Make	Moving vehicle –car and trailer Frame incorporating axles and wheels (trailer)

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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>Control and Monitoring</u> Microchip, Mobile Phone Ada Lovelace (Computer programming) Alan Turing Artificial Intelligence) Bill Gates (software)
Skills	Communicate their ideas through detailed labelled drawings Develop a design specification Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways Plan the order of their work, choosing appropriate materials, tools and techniques Select appropriate tools, materials, components and techniques Assemble components to make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along Achieve a quality product

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	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Record their evaluations using drawings with labels Evaluate against their original criteria and suggest ways that their product could be improved
Assessment	Can I design and construct a vehicle (trailer) which can be pulled by a car programmed by a computer?
WTS	With support, design a program to make the vehicle move backward and forward.
EXS	Design a program to make the vehicle move backward and forward.
GDS	Design a program to make the vehicle move backward and forward and to turn around.