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| **St Bartholomew’s Knowledge Organiser****Design Technology** | **Class 4** | **Spring 1 DT–** **Year 2021-2022** | **Electrical systems: Electronic cards** |
| **What we will learn:** |  **Success Criteria:** |
| In this unit you will learn to;* explore, analyse and evaluate greeting cards
* analyse and evaluate a range of existing greeting cards
* to write design criteria for an electronic greeting card
* experiment and construct a functional series circuit.
* construct a series circuit
* to draw a series circuit diagram and symbols
* to explain how a series circuit will work in my card
* to identify the negative and positive leg of an LED
* create a moodboard to help inspire and generate a range of design ideas
* compile a moodboard relevant to my chosen theme, purpose and recipient
* to generate ideas inspired by research
* to annotate design ideas to include key information
* to review design ideas against design criteria
* to create my final electronic greeting card, compete with a functional series circuit.
* to construct my series circuit.
* to draw my series circuit as a diagram.
* to explain how my series circuit works in my card.
* to evaluate my final greeting card design
 | * Creating a functioning graphite circuit and using circuit symbols correctly to draw a circuit diagram
* Designing a card with a complete working circuit with positive and negative parts of the battery and LEDs in the correct places
* Creating the front cover of the card and mapping out where their circuit will be added
* Creating a functioning circuit which aligns with the front cover of the card
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| **Important Vocabulary** |
| **Battery – a cell or connected group of cells which store electrical energy****Buzzer – a component that makes a loud noise as electricity passes through it****Circuit – a collection of components that make up an electrical system****Component – one of several parts of which something is made****Conductor – a material which allows electricity to pass through it****Insulator – a material which does not allow electricity to pass through it****Parallel circuit – an open circuit where the current flows two or more paths****Series circuit – a closed circuit where the current only flows one path****Design criteria – to help designers to focus their ideas and to test the success of them****Innovative – introducing or using new ideas or ways of doing something****LED – a light emitting diode which lights up as electricity passes through****Modify – change something to improve or fix it** |