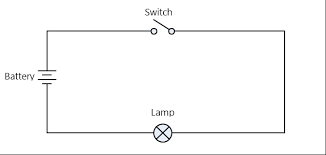
**** 

|  |  |  |  |
| --- | --- | --- | --- |
| **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 | |
| **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** | |