

DT Knowledge Organiser

Electrical Systems - WWI Alarms

Did you know?

Alarms can warn of danger. These work as monitoring systems and often have sensors or switches that cause the alarm to sound or light up. Sometimes they are linked to phones or other means such as video monitors. Many can be programmed and set with timers.



The word alarm came from the Old French A l'arme meaning 'to the arms/weapons', telling armed men to pick up their weapons and get ready for action, because an enemy may have suddenly appeared.

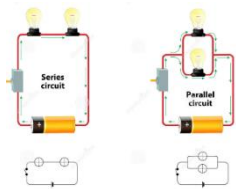


Key Vocabulary

- Control:** to make work
- Input device:** the part that puts information in e.g. computer keyboard
- Monitor:** watch
- Output device:** the outcome (light, sound or movement)
- Program:** set of instructions
- System:** rules to make something work

Designing

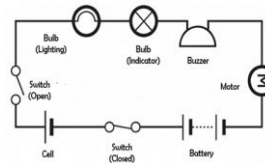
* Consider which type of circuit you need to use.



* In a **series circuit**, there is only one path which the electricity follows.

* In a **parallel circuit**, the components are positioned on different branches of the wire. Both or just one component can work.

* You will need to draw a circuit diagram alongside your annotated sketches.



Making

* As well as making a physical circuit you will learn how to use a Crumble Controller to write a program and control an output.



* You need to make your alarm blend into the surrounding area and ensure that it is durable (strong).



Evaluating

- * How well does your electrical system work?
- * Does it meet its purpose?
- * What would a WWI soldier think about your product?
- * What type of switch did you choose to use? Why? What are the pros and cons of this type of switch?
- * What could you still improve about your product? How would you do things differently next time?



Character	Critical thinking	Creativity	Communication	Citizenship	Collaboration
What qualities does it take to be an inventor?	How have inventions shaped the way wars are fought now?	Can you design an intruder alarm for your bedroom?	Does your alarm communicate the message of attack?	When do people benefit from alarm systems?	Pretend to be soldiers to test out each other's alarms.

