

Grange Park Primary School Year 4 Summer 2 Design and Technology

Simple circuits and switches: A board game with an electronic element

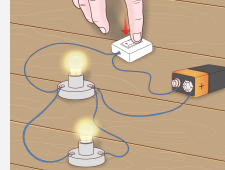
Key People and Events

3500 BC	The oldest board game, Senet, is believed to have existed (Ancient Egyptian origins) .
1800	First board game to be produced commercially - The Mansion of Happiness by George Fox.
1977	The first game to feature an electronic component was made by The Parker Brothers company called 'Code name Sector'. Electronic Battleships also introduced in the same year.
Milton Bradley Company	Milton Bradley Company was an American board game manufacturer established by Milton Bradley in Springfield, Massachusetts, in 1860.

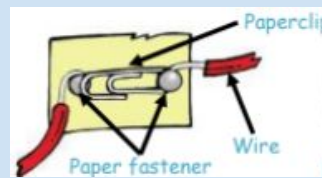


Key Knowledge and Skills

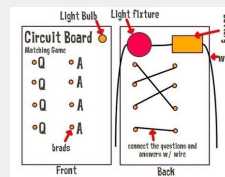
Create a basic series circuit to light a bulb



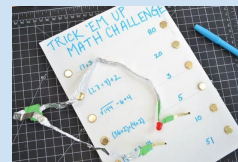
Understand that a switch is a break in a circuit. Create a switch



Create a basic circuit board using a circuit frame and board template



Construct a quiz board by joining materials securely and ensuring the circuit remains complete



Evaluate a product based upon functionality by playing the game with peers



Key Vocabulary

board game	A game that involves the movement of counters or other objects round a board.
electronic game	A game that uses electronics through the use of circuits, devices and systems.
control	The act of regulating something to direct the behaviour or cause of it.
function	The purpose for which product is designed.
component	A part that combines with others to make equipment, a circuit or system.
series circuit	An electrical circuit with only one path that flows and passes through different components or parts.
circuit board	A set of electrical connections that join components.
complete	A complete circuit is an uninterrupted path for electrons to flow from an energy source (i.e. battery or household power), through a device and back to the source.
closed	A circuit without interruption, providing a continuous path through which a current can flow.
prototype	An early model of the final product before making the real one.

