

# 1. Year 7 Curriculum Plan – Technology

**YEAR 7**

**SUBJECT: Systems & Control**

**LEARNING PROGRAMME**



TOPIC	LEARNING OBJECTIVES	KEY VOCABULARY	LEARNING SEQUENCE	LINKED LEARNING	HOME LEARNING
Night Light	<ul style="list-style-type: none"> <li>Be able to recognise some basic electronic components</li> <li>Know how to read a circuit diagram and fit components correctly into a PCB</li> </ul>	Input Output Process Open loop Closed loop	What is an electronic system? All electronic systems can be described in the following way: three blocks: input, process and output. An open loop system doesn't react to its inputs they are separate, a system that does is known as a closed loop system	Science	List of inputs in the home
Components	<ul style="list-style-type: none"> <li>Know which components are inputs, process and outputs</li> </ul>	Sensor Light dependent resistor Circuit	Input components  Process Components  Output Components	Science kS2 Technology	Review circuit components
Circuit Modelling	Be able to model circuits  Know how a light sensing circuit operates	CAD	Modelling Circuits in Yenka	Art Computing	Learn symbols Led LDR Resistor Battery Track Pad joint
Soldering	<ul style="list-style-type: none"> <li>Be able to solder joints on a PCB</li> <li>Be able to use some basic electronic tools safely</li> </ul>	Solder Soldering Iron Side cutters Health and safety	How to Solder safely		Information leaflet of safe soldering

Practical	Using tools safely and with skill	Google Safety		KS2	Take firefly test on tools used
Torch	<ul style="list-style-type: none"> <li>Know how to analyse a product by disassembly</li> </ul>	Materials Manufacture	Disassembly of a product	Science	
Analysis	<ul style="list-style-type: none"> <li>Know how to analyse the form and function of a product</li> </ul>		Torches – form and function		Design ideas for torches
Form Function	<ul style="list-style-type: none"> <li>Know how to analyse the form and function of a product</li> </ul>	Aesthetics	What Makes a Good Torch	Art	
Input process output	<ul style="list-style-type: none"> <li>Know how to create a simple circuit using inputs, process and outputs</li> </ul>	Input LDR Thermistor LED Buzzer Transistor	Circuit Modelling	Science	
CAD CAM	<ul style="list-style-type: none"> <li>Know how to create a PCB design</li> </ul>	Computer aided manufacture Pad Track	PCB design	Art Science Computing	
Component placement	<ul style="list-style-type: none"> <li>Know how to read a circuit diagram and fit components correctly into a PCB</li> </ul>	Components Resistor Thyristor Transistor Solder Soldering Iron	Component selection and soldering	Solder safety	Revise symbols for components used