1. Year 9 Curriculum Plan – Technology

YEAR 9	SUBJECT: Systems & Control	LEARNING PROGRAMME

TOPIC	LEARNING OBJECTIVES	KEY VOCABULARY	LEARNING SEQUENCE	LINKED LEARNING	HOME LEARNING
• Year 9 (i) - Mechanical Systems / Movement	• Understand how mechanical devices and systems produce different types of movement.	Liner Motion Oscillating Motion Rotary Motion Reciprocating Motion	Watch the video & take notes. Compare notes and fill in the gaps. Mr Shaw's Lego Challenge.		
	• Understand how to Change Magnitude and Direction of Force: **Levers**	Class One Lever Class Two Lever Class Three Lever Fulcrum Input / Output Load Effort	Watch the video & take notes. Compare notes and fill in the gaps.		
	• Understand how to change Magnitude and Direction of Force: **Linkages and Rotary Systems**	Gears Simple gear train Diver Gear Driven Gear Velocity Ratio Belt Drive Reverse motion linkage Push/pull linkage Bell crank linkage Cams and followers	Watch the video & take notes. Compare notes and fill in the gaps.		
• Year 9 (ii) - Mechanical Systems / Movement	• Understand how to combine mechanical devices and structures to produce functional models.		Choose and Tech card model and produce a functioning product.		

•			Flipped learning – info and questions on FF		
• Year 9 (iii) - A Systems Approach to Design	• Understand the principles behind 'A Systems Approach to Design'	Input Devices Output Devices Subsystems Pressure sensors Thermistors LDR's Signals / Switches System diagram Open loop Closed loop Toggle switch Push to make switch Push to break switch LED Lamp Buzzer Speaker Micro Controllers Processes Timers / Counters / Switches Monostable Astable Code	Watch the video & take notes. Compare notes and fill in the gaps.		