

Area of study 3:

The development of recording and production technology

Component 1: Recording	Component 2: Technology Based Composition	Component 3: Listening and Analysing	Component 4: Production and Analysing
		3.1 Software and hardware: digital	
		3.2 Hardware: analogue	

Area of study 3: Task List

Topics	Content	Skills, knowledge and understanding	S	C	M
Software and hardware: digital (3)	Digital hardware/software attributes	The differences between digital and analogue recordings The advantages and disadvantages of digital hardware/software Graphical user interfaces (GUI) Sampling theory and converters			
	Digital sequencing and digital audio workstations (DAW)	Core and advanced functions of a digital audio workstation Real-time (native) processing; software instruments Non-destructive and non-linear editing Convolution reverb; amp modelling			
	Digital consumer formats	CD; mp3/m4a; high definition masters; emerging technologies Data bit rate			
	Digital recording and sampling hardware	Digital multitrack formats Sampling with limited available memory			

Hardware: analogue (3)	Analogue hardware attributes	<p>The differences between analogue and digital recordings</p> <p>The advantages and disadvantages of analogue recordings</p> <p>Valves; soft clipping; tape saturation</p> <p>Solid state (transistor) amplifiers/distortion for hard-clipping</p> <p>Maintenance issues and variations in frequency/pitch</p>			
	Tape machines	<p>Editing and splicing</p> <p>Multitrack tape formats</p>			
	Analogue consumer formats	<p>Vinyl; cassette tape</p> <p>Mono and stereo releases</p> <p>Mixing and mastering principles for analogue formats, e.g. vinyl; cassette</p>			
	Analogue effects	<p>Delay: tape; bucket brigade</p> <p>Mechanical reverbs: plate; spring</p> <p>Rotary speaker (Leslie cabinet)</p> <p>Vinyl scratching</p> <p>Pitch changes and reversing using vinyl and tape</p>			
	Analogue synthesisers	<p>Advantages and disadvantages</p> <p>Modules and patching</p>			
	Electric instruments	<p>Electric guitar; bass guitar</p> <p>Theremin; Mellotron; electric organ; electric piano; Clavinet</p>			