

# Studio Design - Knowledge Organiser

GLOSSARY					
Ergonomics	Ensuring that things are designed with the comfort of the user in mind				
Sightlines	Ensuring an engineer has clear lines of sight to musicians during a recording				
COMPONENTS OF A MODERN STUDIO					
Recording/Live Room	Control Room	Mixing Console	Monitors	Outboard Effects	DAW
<ul style="list-style-type: none"><li>Where the musicians perform/where sound is captured</li><li>Acoustically treated with sound absorbing materials</li></ul>	<ul style="list-style-type: none"><li>Where the engineer operates the recording equipment</li><li>Acoustically treated with sound absorbing materials</li></ul>	<ul style="list-style-type: none"><li>Where the engineer has control over the audio signal path</li><li>Has channels for mics, instruments and other audio sources</li><li>Has access to various processing tools</li></ul>	<ul style="list-style-type: none"><li>Used to playback audio signals</li><li>Full range speakers for an extended low frequency response (ported)</li><li>Near field monitors for critical mixing (sealed)</li></ul>	<ul style="list-style-type: none"><li>External processing units used to shape the sound of the recording</li><li>Often used in conjunction with the mixing console</li></ul>	<ul style="list-style-type: none"><li>Used for recording, editing and mixing audio</li><li>Allows the engineer to manipulate the audio signal using digital processing tools</li></ul>
AN IDEAL RECORDING STUDIO					
<ul style="list-style-type: none"><li>Ergonomics – The studio should be designed with the engineer's comfort in mind<ul style="list-style-type: none"><li>Mixing desk at a comfortable height</li><li>Adjustable seating</li><li>Essential equipment such as outboard gear, monitors and computer screens positioned nearby for easy access</li></ul></li><li>Listening Position – The engineer's listening position should be at an equal distance from both the left and right monitors<ul style="list-style-type: none"><li>The monitors should form an equilateral triangle with the engineer's ears</li><li>Allows for accurate stereo imaging and ensures the mix is being heard accurately</li></ul></li><li>Sightlines – The control room should have clear lines of view to the live room<ul style="list-style-type: none"><li>Allows the engineer to communicate with the musicians during recording</li><li>Can be achieved using a large window connecting the live and control rooms or through a video monitoring system</li></ul></li><li>Acoustic Treatment – The control and live rooms should have proper acoustic treatment to control sound reflections/resonances<ul style="list-style-type: none"><li>Absorptive materials such as acoustic panels</li><li>Bass traps to reduce the low-frequency resonances that can build up in small spaces</li></ul></li></ul>					