Stereo - Knowledge Organiser

GLOSSARY	
Stereo	Sound coming from 2 speakers/sources
Pan	The placement of sounds in a stereo field
Potentiometer	A variable resistor used to adjust parameters in audio equipment, usually in the form of a fader or control knob

PANNING

60s	Present Day

• Wide panning was most common (LCR/Left-Centre-Right)
  • Rhythm section would be hard panned to one side and vocals hard panned to the other
  • To pan tracks centrally, both the left and right signals would be turned up
	• Panning is applied gradually across the stereo field
	  • Instruments like bass guitar and vocals are usually panned centrally
	  • Drum overheads are usually panned hard left and right
	  • Other instruments can be panned across the stereo field, not just hard left or right

STEREO WIDENING

- Stereo widening is used to create space in a busy mix by giving clarity to key elements (e.g., lead vocals)

Delay	**Very short** delays are perceived by the brain as alterations in the position of a signal rather than repeats, thus creating a stereo effect
EQ	Using complementary settings on the left and right channels can create a sense of stereo width
Stereo Reverb	Stereo reverb can give mono tracks a sense of width
Plug-ins	Stereo widening plug-ins such as 'Stereo Spread' can also achieve stereo widening

- Stereo widening doesn't have very good mono compatibility, so it is important to check the bounce of a stereo mix if it is being played back on a mono system

PANNING LAW

Panning law describes the relationship between a signal's perceived image position and the pan control knob

- When a signal is panned centrally, the same signal is output to both the left and right channels
- The panning law introduces a 3dB attenuation at the centre
  - This is so the signal is perceived to move smoothly across the stereo field
  - Without the attenuation, the signal would sound louder the closer it was panned to the centre