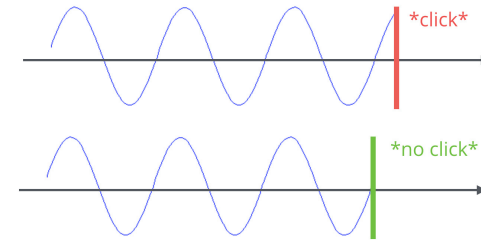
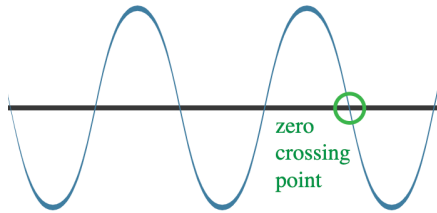


# Sampling - Knowledge Organiser

GLOSSARY		
Looping	Repeats the sample	
Normalising	Increases the volume to the maximum without distorting	
Stuttering	Repeating short sections of the sample to create a stutter effect	
Gapping	Adding spaces between small parts of the sample	
Time-Stretching	Extending or reducing the time of the sample independently from its pitch (digital)	
Pitch-Shifting	Changing the pitch of a sample independently from its length (digital)	
Reverse	Playing the sample backwards	
Transposing	Changes the starting pitch/key of a sample	
ANALOGUE VS. DIGITAL SAMPLERS		
Analogue	Digital	
Sounds would be captured onto tape and then manipulated	Samples recorded and encoded onto the device as binary data and then manipulated	
LIMITATIONS OF SAMPLERS		
Analogue	(Early) Digital	
<ul style="list-style-type: none"><li>• The pitch and speed of a sample are interdependent</li><li>• Expensive</li><li>• Not portable</li><li>• Limited range</li></ul>	<ul style="list-style-type: none"><li>• Limited memory</li></ul>	
SAMPLING REAL INSTRUMENTS		
Keyboard Tracking	Multisampling	Velocity Layering
Spreading a single sample across the keyboard	Taking a sample every few notes to map across the keyboard	Switching between a selection of samples depending on the MIDI velocity

## ZERO-CROSSING POINTS

Cutting samples at a zero-crossing point helps to avoid clicks

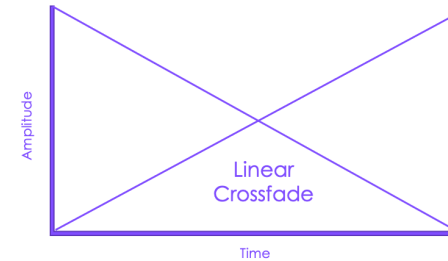
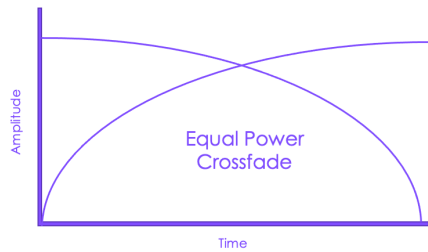


## LOOP POINTS

Sustained sections with constant volume are the best sections of a sample to loop



## CROSSFADES



Used to help avoid clicks when zero crossing edit points can't be used