

Year 10 Knowledge Organiser: Constructing Curves

keyword	definition
amplifier	a device used for increasing the amount of sound
disassemble	take something to pieces
measure	to find the size, amount, dimensions of something
assemble	to fit together in a particular place
construct	build or make something
CAD (computer aided design)	a design produced on computer software
CAM (computer aided manufacture)	a method of manufacturing using a computer operated machine

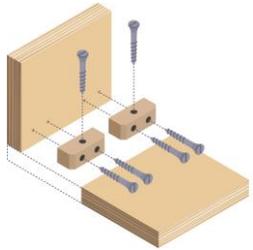


Passive amplifier
A passive amplifier, or speaker, is essentially a speaker that requires no electricity. It uses the walls of the amplifier to reflect the sound, making it sound louder.

What is the difference between a passive and active amplifier?
An amplifier is a device that increases the amount of sound.

Passive amps do not need any electricity and work because they focus sound pressure levels in sound or audio, like a trumpet.

Active amps require power and work to increase the amplitude of electrical audio signals

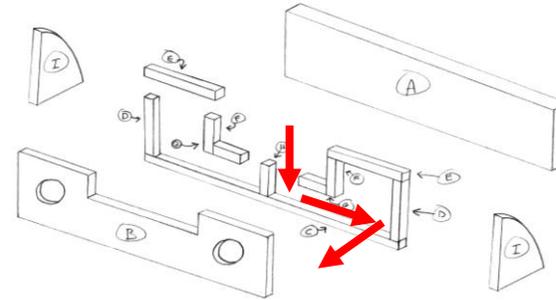


Exploded diagrams

Exploded diagrams show how a product can be assembled and how the separate parts fit together, with dotted lines showing where the parts slide into place. The diagrams also show components that would usually be hidden in a solid drawing.

How it works...

The sound flows down through the phone speaker around the channel and then out through the holes. Every passive amplifier needs this channel for the sound to flow through and out to work effectively.



Serif Draw Plus

Serif Draw Plus is a CAD program. You will design the components of your amplifier on Serif. When designing you must ensure it is compatible with the laser cutter. This means that **cut lines must be in red** and areas for **etching should be in black**; black fill if you want the full area to be etched.



Laser cutter

The laser cutter is a CAM machine which operates by using a laser. This laser is very precise and enables detail to be both cut and etched.

Etching- etching is a like engraving and removing the top layers of a material

Living hinge

A living hinge is a flexible area of a product. It is created by cutting into the material and is manufactured to enable the piece to become flexible and create curves and waves.

