

Year 8 Product Design Rotation - Passive speaker – Knowledge Organiser



Passive Phone Speaker

Is a free standing speaker that when a phone plays music out of the bottom speaker, will amplify the music and project it towards the listener. The gradual increase of the cone-like shape prevents any distortion of the music unlike other passive amplifiers, and will create clear, loud music.



Health and safety



- Always listen to the teacher's instructions.
- Always wear an apron.
- Long hair to be tied back.
- Don't use any equipment you have not been shown how to use.
- Always stand up with your chair under the desk when doing practical lessons.
- Work quietly.
- Be sensible and careful at all times.

Joints you'll create.

Joint	image	Description
Finger Joint		A joint used in woodworking which look like interlocking fingers.
Lap Joint		A joint made by halving the thickness of each member at the joint and fitting them together
Dowe l Joint		A joint using dowel to strengthen a Butt joint.

Materials you'll use.

Material	Image	Description
Pine		Is a naturally grown soft wood. Pine is any conifer in the genus Pinus of the family Pinaceae.
MDF		Medium-density Fiberboard is an engineered wood product made by using different wood fibred mixed with wax and resin then formed into panels, compressing the mixer under pressure.
Plywood		Is an engineered wood product made of layers of wood veneer glued together. The grain of each layer is rotated 90°.
Acrylic		Is a plastic material with thermoform properties.

Tools and equipment you'll use.

Name of the tool	Image	Description
Making gauge		An accurate tool used to marking out on wood.
Steel Rule		An accurate tool for measuring and marking out
Tri Square		A tool used to check and mark right angles on wood or plastics.
Tenon Saw		A hand saw with a stiff back used to cut straight lines in wood.
Coping Saw		A hand saw used to cut curves and complex shapes in wood and plastics.
Chisel		A hand tool used to cut and remove sections of material.
Mallet		A wood mallet is used to knock wood pieces together or to drive a chisel
File		Used to sharpen or smooth wood, metal or plastics
Glass paper		An abrasive paper used to smooth the edge or surface of wood.
Pillar Drill		A powered machines used to cut holes of different diameter in wood, plastics and metals.
Band facer		A powered machine use to finish wood.