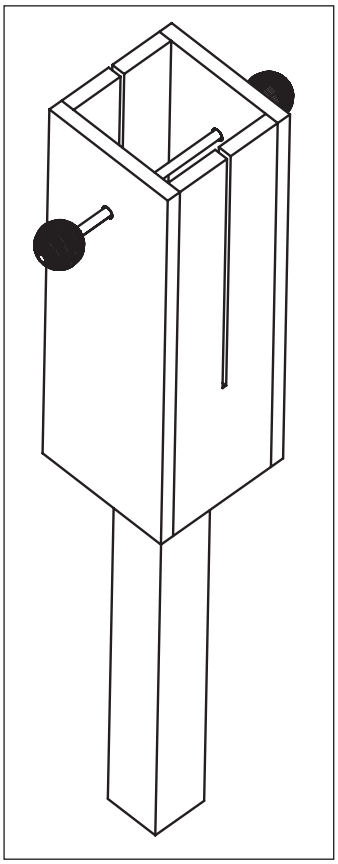
OPITEC

Hobbyfix

107.067

African Rattle



Please Note

The OPITEC range of projects is not intended as play toys for young children.They are teaching aids for young people learning the skills of Craft, Design and Technolo- gy. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Dan- ger of suffocation!

_1. Product Information :

Article: Musical Instrument in project pack format

Use: In Design Technology, Key Stage 2/3

2. Material Information :

Material: Plywood (Gabun) 3 layers
each layer is set in the opposite direction!
Pine (Coniferous) Softwood
Wood should be relatively dry before working

Working: Wood can be sawn, shaped, planed. Mark out according to the measurements or use plans

Joining: Use white PVA woodworking glue

Finishing: Finish with wax (liquid or solid)
Clear varnish (undercoat & top coat)
Staining (coloured, water soluable, finished with a coat of clear varnish)
Linseed oil

3. Tools:

Sawing: Use a **Fretsaw** for all curves and shapes that cannot be sawn with a Tenon saw.

Note! Fretsaw blades are inserted with the teeth facing forward.

Use a special Fretsaw board, saw with slow constant stokes turning the work as go

Shaping: Use a rasp or wood file , choose the grade according to the work in hand

Note: Files and Rasps only cut on the forward stroke

Sanding: Use loose sheet glasspaper for individual shapes and a block and glasspaper for all flat surfaces

Holding: Use G clamps (Do not over tighten them or they will leave marks)

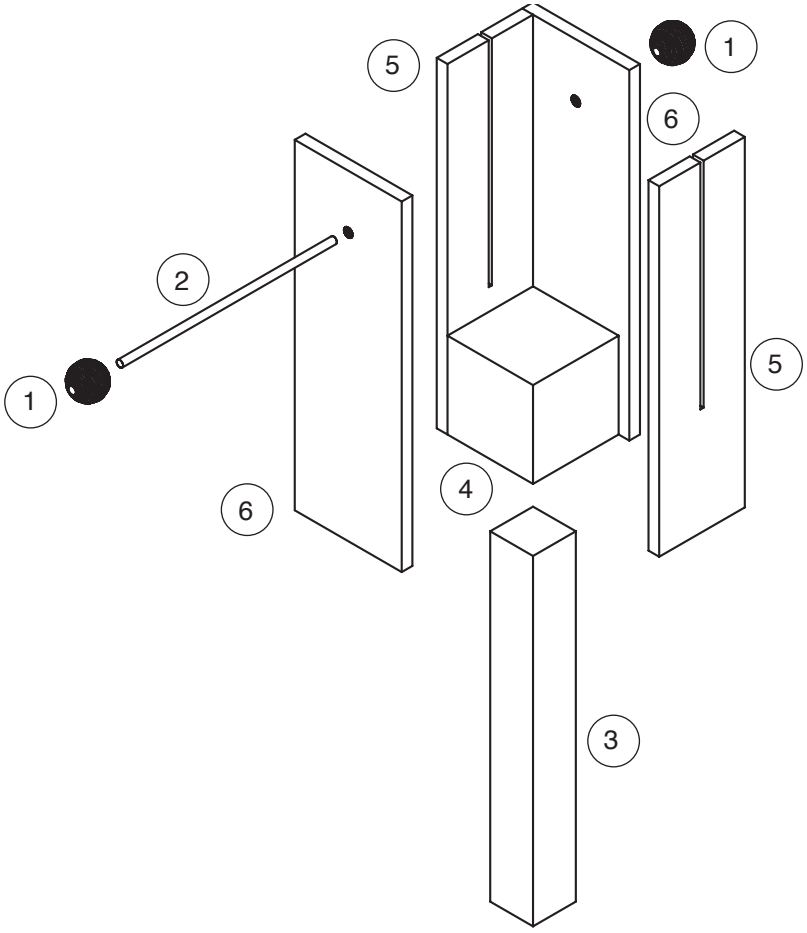
Drilling: Use a handrill or a pillar drill

Note: Adhere to the safety rules, tie all long hair back, wear an apron, wear safety glasses and remove all jewellery. Hold the work in a machine vice so that it cannot spin.

4. Parts List

Part	Material	Quantity	Size	Diagram
Clapper	Wooden bead, drilled	2	20 dia	1
	Beech dowel	1	Ø4 x 100 mm	2
Sound box + Holder	Pine strip	1	20x 20 x 150 mm	3
	Pine block	1	40 x 40 x 40 mm	4
	Plywood	1	5 x 40 x 330 mm	5
	Plywood	2	5 x 50 x 150 mm	6

5. Exploded Diagram :



6. Planning Overview

6.1 Making the sound box

6.2 Assembling the clapper

6.3 Assembling the handle

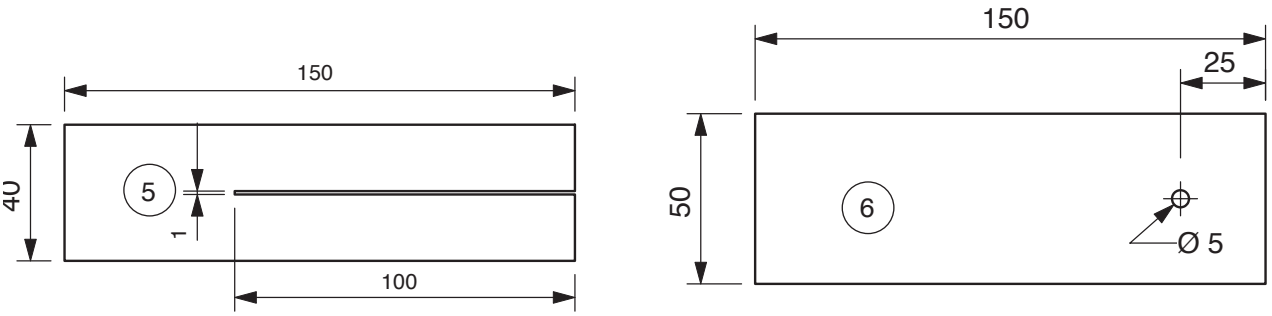
6.1 Making the sound box

6.1.1 Mark out and saw two pieces each 150mm long from the plywood (5) . Clean up the sawn edges with a block and glasspaper.

6.1.2 Saw the slots in the sides (5) 5 x 40 x 150 with a Tenon saw, they should be approx 100mm deep.

6.1.3 Mark out and drill the 4mm dia holes in the plywood (6) 5 x 50 x 150mm

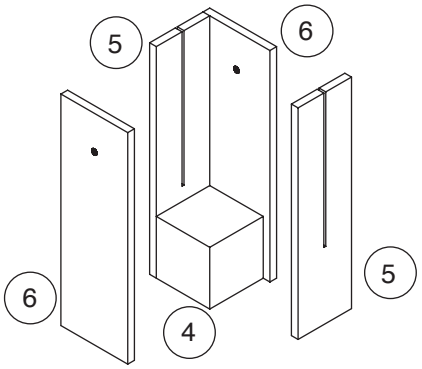
Note: Drill the holes in one action! Use a pillar drill or a handrill

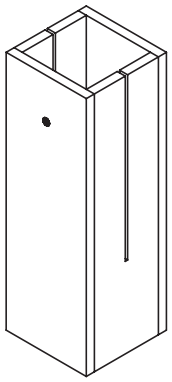


6.1.4 Glue the plywood parts (5) and (6) to the sides of the pine block (4) to form the sound box.

Note: You must ensure that the corners overlap properly and there are no gaps in the joints.!

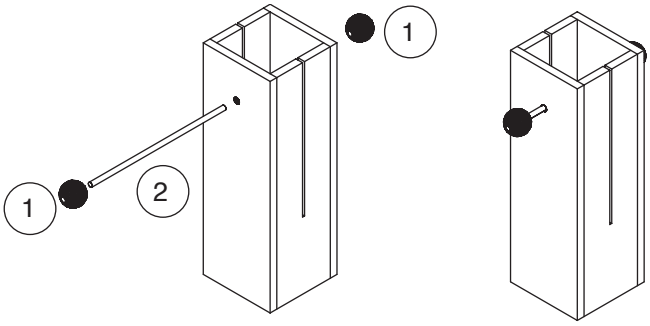
Tip: The parts can be held in position with rubber bands until the glue sets





6.2 Making the "Clapper"

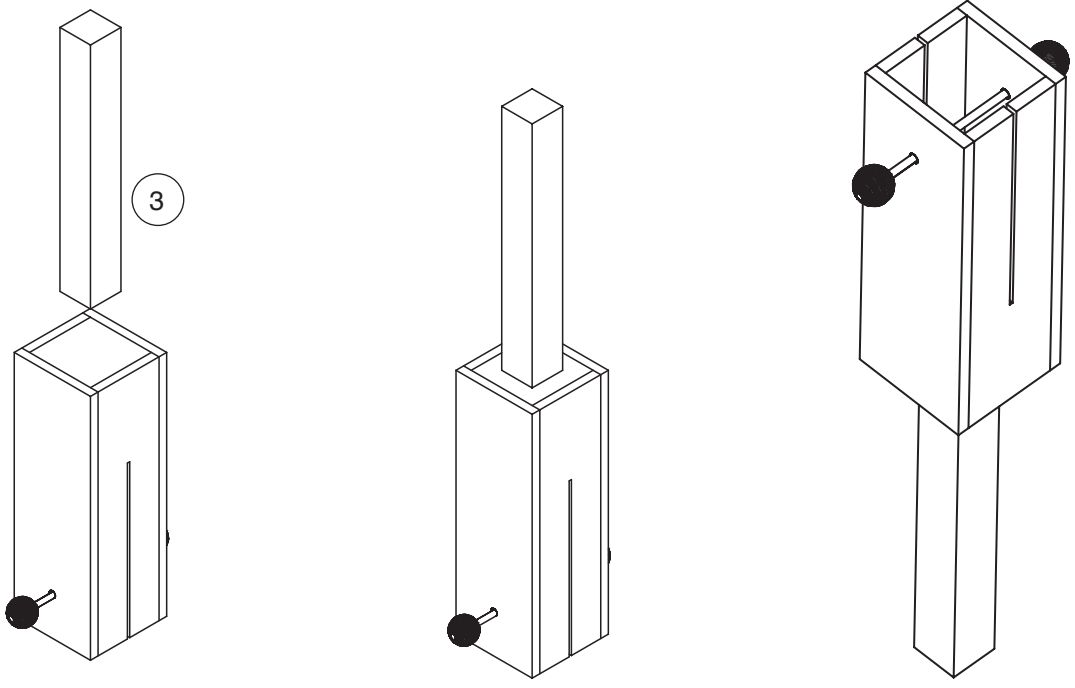
Insert the dowel (2) through the holes in the sound box (see diagram) and glue a wooden bead on either end (1)



6.3 Making the handle

6.3.1 Chamfer the edges of the handle with glasspaper and then glue it in the middle underneath the Sound box. Leave to dry thoroughly !

Note: The handle can be shaped to fit a hand comfortably, ergonomically before being glued in position



6.3.2 Die farbige Gestaltung ist jedem freigestellt.