# OPITEC

## Hobbyfix

# *1 0 8 . 5 2 6*
## *S a n d   P i c t u r e*



## Contents

| 1 | Grey card | 1,5 x 150 x 210 mm |
|---|-----------|---------------------|
| 4 | Pine strips | 10 x 20 x 200 mm |
| 8 | Pine strips | 5 x 5 x 150 mm |
| 4 | Pine strips | 5 x 20 x 200 mm |
| 3 | Pine strips | 5 x 10 x 150 mm |
| 2 | glass sheets | 2 x 150 x 150 mm |
|   | Sand | approx 200 g |

## Tools needed

- Fine backsaw
- Mitre block
- Corner clamp
- Sandpaper
- Wood glue
- Paint
- Brush

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**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!

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## Sand:

The sand used in this project is a special type with very fine grains. It can be easily coloured using Marabu-Decorglass paints (see catalogue). Measure out the sand into two equal amounts and then choose two colours. A single teaspoon of colour is enough for 100gm of sand. Mix the sand and paint together. Lay the coloured sand on a sheet of newspaper and allow to dry thoroughly. If the grains stick together (this often happens if too much colour is used) place the sand in aplastic bag and roll over it with a rolling pin or similar, this will separate the grains again. Finally sieve the sand with a kitchen sieve in order to remove any large particles.

## Sand Picture.

### Planning and Making

1. Shorten the four strips 5 x 20 x 200mm, to a length of 170mm each. Then, using a mitre block, saw a 45 degree angle on each end in order to construct a flat frame. Using a corner clamp glue together two sides of the flat frame (Refer to the exploded drawing, step 1.). Once this is dry construct the remaining corner of the frame and glue the two elements together in order to make up the complete frame. The frame can also be made using butt joints. The sizes needed for this alternative design are: 2 sides 130mm long and 2 sides 170mm long.

2. Shorten the four strips 10 x 20 x 200mm,to a length of 170mm each and make them up to a frame as in step 1. As this is the main picture frame, ensure that the thin edge is uppermost. See exploded drawing, step 2. When this frame is complete glue it to the first frame (from step 1). If you constructed your first frame with butt joints you must also use the same method on this frame. (2 sides 150mm long and 2 sides 170mm long)

**Attention:** Check that the inner measurement of the frame is 150 x 150mm so that the glass sheet will fit.

3. The next step is, to draw a centre line across both sheet of glass. Glue (pattex or similar) one of the glass sheets into the frame and leave it dry with a weight on top.

4. Now place four of the pine strips 5 x 5 x 150 around the glass sheet (2 of the strips will need to be shortened to 140mm). The first middle dividing strip 5 x 10 x 150 mm will need to be sawn in 3 parts and angled where they join. ( See drawing part 1 & 2 on page 3).

**Attention:** Make sure that no glue is applied to the 1.5mm gaps between the middle dividers otherwise the sand will not flow freely. When steps 1-4 are completed let the glue dry for 24 hours, place under weight.

When the work is dry clean the glass sheet and fill one of the chambers with sand, make sure that it is filled evenly. Then level it with the frame using a length of wood.

5. Carefully clean the second sheet of glass and brush off any small amounts of sand on the frame. Then glue the glass sheet in position, weigh it down and leave it to dry.
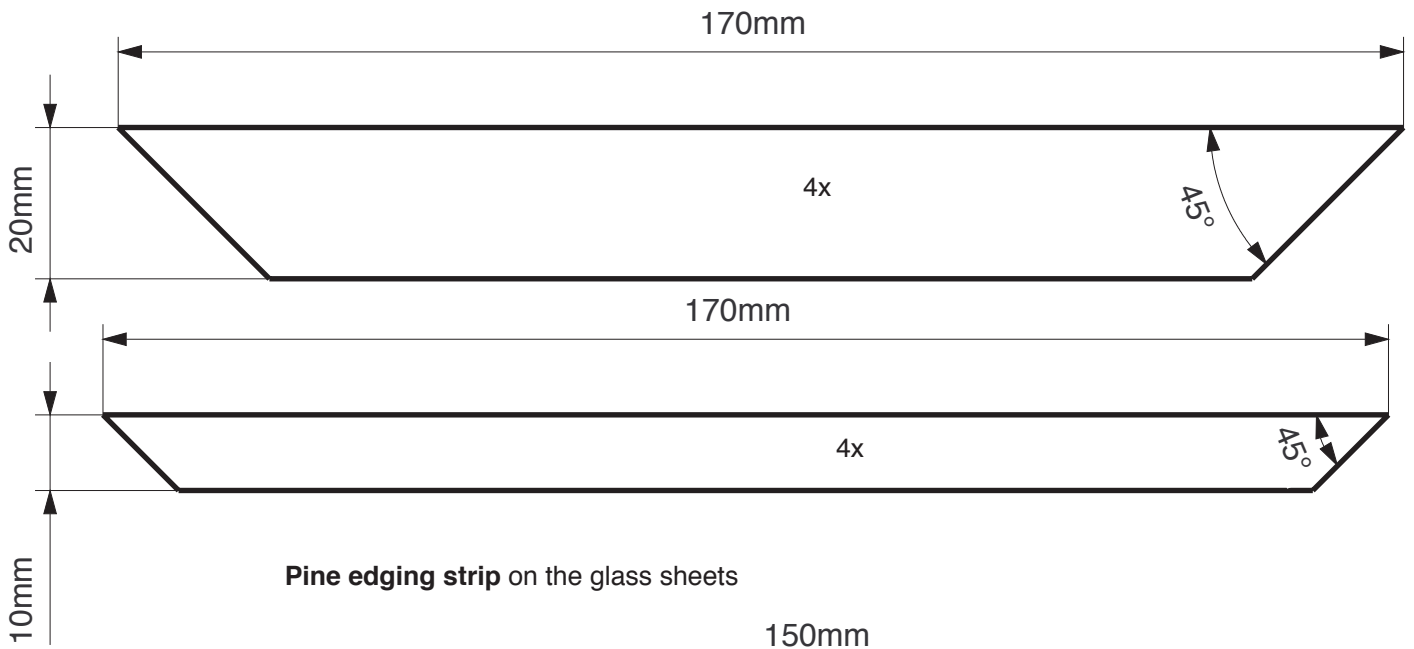
6. Place the four strips around the edge as in step 4. The second middle divider strip 5 x 10 x 150 must now be sawn in two pieces. (See drawings 3 & 4) and glue them in postion, with a gap of 1,5mm (thickness of card) leave to dry, then fill the second chamber with a different coloured sand, level it off and glue the glass sheet in place.

**Attention:** Make sure that, as in step 4, no glue is allowed to get into the 1,5mm gaps and that the frame has been properly brushed clean before adding the last sheet of glass. Leave to dry for at least 24 hours in a horizontal position so that the sand does not creep between the glass and frame.
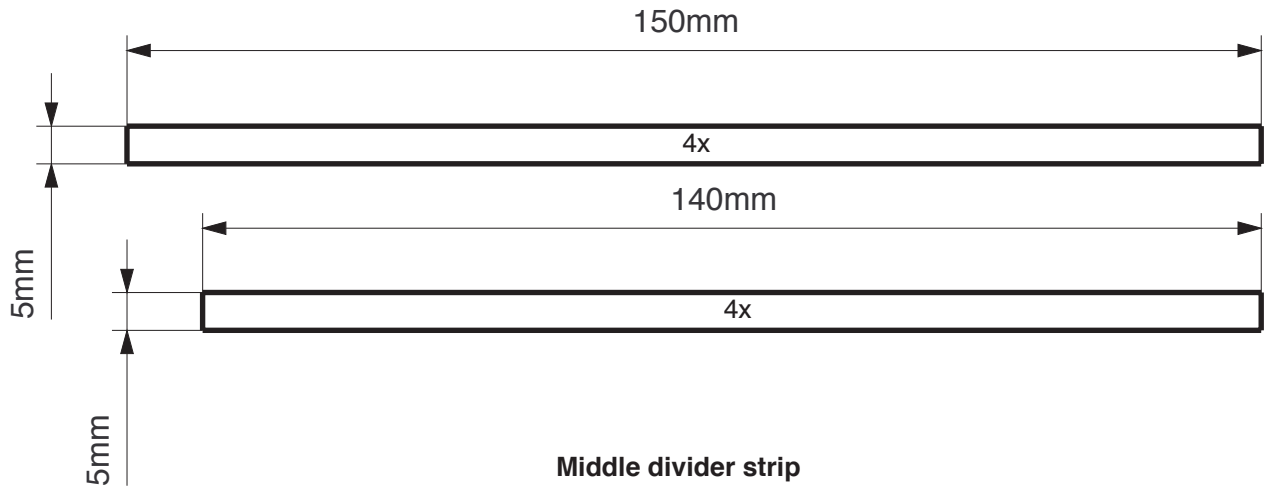
7. At this stage add the rear card panel. Cut the grey card to 150 x150mm, you can paint this card or leave it plain. When it is dry glue it to the frame and weigh it down. Leave it to dry in a horizontal position. As a trim add a pine strip 5 x 10 x 150mm across the front sheet of glass.

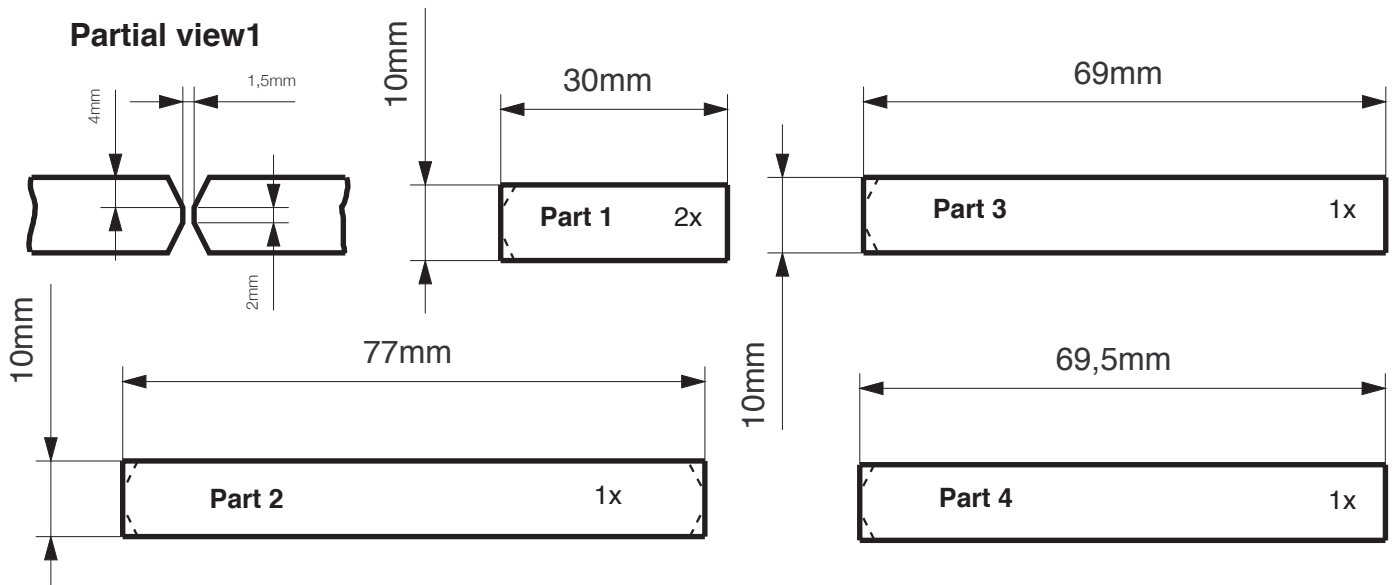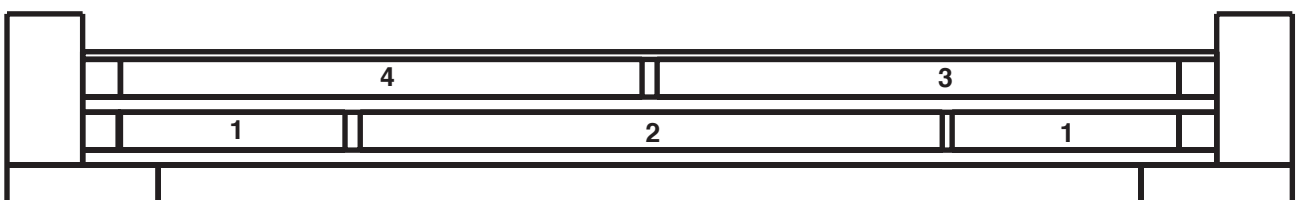Finally clean up the frame with sandpaper and apply a coat of varnish or paint.

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## Frame

170mm

20mm

4x

45°

170mm

10mm

4x

45°

## Pine edging strip on the glass sheets

150mm

5mm

4x

140mm

5mm

4x

## Middle divider strip

### Partial view1

4mm

1,5mm

2mm

10mm

10mm

30mm

Part 1    2x

69mm

Part 3    1x

77mm

10mm

Part 2    1x

10mm

69,5mm

Part 4    1x

## Section AB

| 4 | 3 |
|---|---|
| 1 | 2 | 1 |

# Exploded drawing

A

B

← 7. Step

← 6. Step

← 5. Step

← 4. Step

← 3. Step

← 2. Step

← 1. Step

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