

Ben Uri Gallery  
Art Skills for Teachers

3D

Skills



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## Ideas for 3D skills in the classroom

There are many ways to create 3D work in the classroom. For example, a simple 3D effect can be produced by decorating the inside of a box such as a shoe box with paint or tissue paper. 2D pictures can then be created using thick paper or card. The pictures can then be cut out and attached to string, 'kebab' sticks, or art straws that can then be pushed through holes in the side of the box.

This is a great technique for bringing 2D paintings to life, or for creating scenes from stories.



*These underwater scene 3D boxes were created by Year 1 pupils.*

## Making Sculptures using Art Straws



Very basic but effective 3D models can be made using arts straws and masking tape. These sculptures were made by Year 5 pupils. Art Straws are great to use as an introduction to 3D art, as pupils can realise their designs in 3D for the first time and begin to explore the challenges of making a 3D model. Pupils should consider how to make their structure strong and self standing as well as how to attach together the various components of the structure.

## Cardboard & Mixed Media Modelling

These 3D sculptures were all inspired by the Movement teaching pack. Pupils will need to create a drawing of their sculpture design first. Provide pupils with a selection of cardboard pieces (use old boxes but make sure the cardboard is not too thick to cut with classroom scissors)

You can also provide an assortment of other materials such as small pieces of light wood (such as balsa wood) corks, plastic lids and packaging, toilet roll tubes, string, art straws and lollypop sticks. Ensure that each pupil has a base, on which to build the sculpture. Pupils can use PVA glue to attach the pieces, but some of the parts may need to be attached using the glue gun (Have a couple of glue guns ready and heated up at the back of the classroom and supervise use)



Once the sculptures have been made they can be sprayed with gold and silver spray (spray outside or in a well ventilated area, indoor spraying can make the classroom smell for days!)

*Cardboard Sculptures inspired by the Movement pack created by Year 5 and 6 pupils*

# Cardboard & Mixed Media Modelling



*These sculptures were made by Year 3, 4, 5 and 6 pupils in response to the Movement Teaching Pack.*



## Cardboard & Mixed Media Modelling



These mixed media sculptures were inspired by the *Movement* teaching pack and in particular, the work of Sonia Delaunay. They were created by Year 5 pupils.



## Relief or 3D Pictures/Models

3D work can be created using only screwed up newspaper and masking tape. The original shape is drawn and then cut out of card board. Newspaper balls are screwed up (make sure that pupils only use one sheet of newspaper at a time to ensure that the newspaper balls are 'springy') this will make shaping the newspaper easier. The newspaper balls are then taped into place using masking tape (which is easy for pupils to add fairly quickly). When the whole of the cardboard shape is covered with newspaper balls which have been firmly taped down, the shapes can be paper mached with coloured tissue paper, for instant colour, or paper mached with newspaper and then painted.



*Vegetables made using the newspaper and paper mache technique*

### Newspaper Modelling

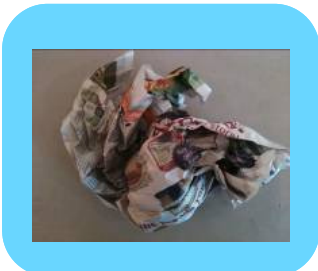
Newspaper and tape can also be used to model 3D sculptures. Newspaper is screwed up and squeezed into different shapes. Different parts of the sculpture are made and then attached together using masking tape. When the whole sculpture is finished a layer of tape must be added to the newspaper sculptures. This keeps everything in place and also creates a smooth surface for adding paper mache. The sculpture can then be covered with coloured tissue paper (cover as with paper mache, in small pieces adding PVA underneath the paper and on top of the paper) or with newspaper which can then be painted.



### Top Tips!

Make sure only one piece of newspaper is used at a time. This will ensure the paper is springy for shaping. Make sure that pupils have at least 5 pieces of tape torn or cut off and ready for sticking along the side of their table. This means that as soon as the shape is shaped- pupils are ready to stick! It also prevents arguments over who has the tape!!

# Making a 3D Newspaper Sculpture



Make sure that all pupils have prepared at least 5 pieces of tape on the side of their tables ready for sticking. Take 1 piece of newspaper at a time to create your shape.

The first shape can become the body of the animal.



Start to add tape to 'fix' the shapes into place.

This example uses brown plastic parcel tape which is very effective for the activity, but masking tape works well and is much easier for pupils to prepare.



Attach the head and the body together using more tape.

Make 4 legs using 1 piece of screwed up newspaper per leg. When all of the legs are made, attach the legs to the body using tape.



Ensure that the entire sculpture is covered in tape. This will strengthen the sculpture and prepare the surface for paper mache.



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# Making a 3D Newspaper Sculpture



Add details such as ears and a tail, using smaller screwed up pieces of newspaper and tape.

## How to do it!



The sculpture is now ready to be covered. You can use coloured tissue paper for an immediate coloured effect, or newspaper paper mache, which can then be painted.

Prepare the PVA in water pots by adding 2/3 PVA glue and 1/3 water. Thick brushes can be used for paper mache, but make sure that they are soaked in water overnight to fully remove any glue residue. Pupils must add small pieces of paper to their sculpture, taking care to put glue underneath the paper and on top of the paper. This ensures that all paper is stuck down and that there is a smooth surface. The PVA dries to create a shiny varnish for the sculptures which enhances the colour.

Paint effects can be added with small brushes once the sculptures have dried.



The same technique can be used to create habitats and environmental sculptures, such as this model of an island, created by Year 2 pupils. The models can be used with toy animals for play.



These newspaper wildlife sculptures were created by Year 4 pupils.



## Using Clay in the Classroom

Clay can be used in the classroom fairly simply without having access to kilns or expensive equipment. Air drying clay can be purchased from school suppliers and is great to use in the classroom with pupils of all ages.

Pupils can create 3D work, or clay plaques as part of any project

## Setting Up

Air drying clay does start to dry out quite quickly, so avoid putting the clay out until the last minute. Use a large knife or butter knife to cut the clay up into pieces. The amount needed varies, depending on the project, but usually about 500g per person (a piece about the size of a can of coke) is enough.

Cover tables and ensure that each pupil has a board to work on. These would ideally be wooden clay boards (covering each board with cling film will help to prevent clay from sticking to the board, though it is not always necessary) but other items can also be used, such as pieces of lino or plastic trays. It is a good idea to write each child's name on to a piece of masking tape and then stick to the board so that work can be left to dry without getting muddled up.

A pot of water may be put in the middle of the table to use during the clay work, however, tell pupils to use their finger tips only when adding water to their sculpture (adding water using the whole hand creates some very messy and soggy work)

Tools needed are rolling pins and clay carving tools such as these below.

However, if specific clay tools cannot be found, then plastic knives and forks, kebab sticks and lolly-pop sticks can also make great tools for working with clay.

# Making Clay Plaques

Provide each child with approx 400—500g of clay. Prior to the class, prepare 30 square pieces of paper cut to 12cm by 12cm in size (they can be slightly bigger if required)

Clay Tiles made by Year 1 pupils



Each child must begin by using the rolling pin to flatten out the clay. It must not be too thin or it will crack! The tile should be at least 1cm thick. When ready, the square paper template should be placed over the flattened clay. This will be the template for the tile shape. Pupils must carefully cut around the edge of the paper template so that they have their square tile ready for decorating. The cut off pieces of clay can be used to create the shapes to add to the tile.



Cutting around the square tile template

Pupils can then cut out shapes to attach to the tile. This must be done very carefully as because air drying clay is being used, as it dries air will push apart the two pieces of clay unless they are securely attached to each other. In other words, the added pieces will fall off when dry, unless securely attached.



Clay 'Fish' tiles by Year 1



For this reason, water must be added to the bottom of the shape to be added (this would be the fish shape if using the example above) and also to the tile itself. Adding a tiny bit of water creates a sticky surface which enables the two pieces to stick. Ask pupils to put water on to the bottom of the shape and water on to the tile using their fingertips only, in a circular motion to make the two surfaces sticky.

# Making Clay Plaques



These clay name plaques were made by Key Stage 2 and 3 SEN pupils.

Before drying add 2 holes in the corner of each tile for hanging later. Take care not to do this too close to the edge or the corners will break.

When dry, the clay plaques can be painted. Layering the paint in thin layers helps to prevent the paint from chipping or peeling off. Poster paint can be used but benefits from having a tiny bit of PVA glue added to it to aid adhesion. Use fine brushes. When the whole object has been painted and dried, a thin layer of PVA glue can be added again to strengthen, protect and varnish.



*These clay plaques were created by Year 5 pupils and inspired by Klaus Meyer's, 'In Memoriam' which can be found in the Relationships Teaching Pack. The works explore the themes of prejudice, isolation and bullying. Wire has been added through pre-made holes to emphasise the idea of isolation and separation.*



## Clay Pinch Pots with Air Drying Clay

These pots were made by Year 5 pupils. They have been made by pupils using the 'pinch' technique. A slab of clay is pinched into shape using thumbs and fingers. This is probably one of the easiest way of creating pots with young children. Set the classroom up for clay work as described earlier and provide pupils with the same amount of clay (400— 500g). Demonstrate how to create a pot shape by pushing thumbs down into the slab of clay and pinching around in a circular motion to create the pot shape. Handles can be added but must be attached by wetting the edges of the handles and the pots, to create a sticky surface. Once stuck on, the handle piece and pot must then be rubbed together so that the two pieces of clay 'blend' together, as in the picture below. When dry, the pots can be painted with poster paint and then varnished with PVA glue.

