

## Casting with plaster lesson plan



### National Curriculum: KS 3&4 Art and Design

As a student the artist Peter Palmer used the press moulding technique to cast his whole body in stoneware clay. His sculpture is now in Portsmouth Museum. The technique of making a mould in plaster and filling it with clay is one of the simplest ways of reproducing a design or a 3D object. In the classroom you could also use paper mache or plasticine to fill your mould. In this lesson plan we demonstrate the traditional version of the technique and show how simple and effective it can be.

<https://www.culturestreet.org.uk/lesson.php?id=62>

### Learning Objectives

Through using this lesson plan students should:

Pupils should increase their proficiency in the handling of different materials.

In addition students can gain knowledge and understanding of the work and approaches of artists, craftspeople or designers from contemporary and/or historical contexts, periods, societies and cultures.

Students can refine their ideas as work progresses through experimenting with media, materials, techniques and process.

## Overview

This lesson plan can be used:

To start a sculpture project.

To develop ideas and understanding of processes and materials.

As part of study of any artist using casting in their work.

As part of individual study

### **Making a press mould of a tile**



This short time-lapse video shows the making of a press mould for a clay tile. Keep your design relatively simple. We have made a design of a bird. It is important to avoid undercuts otherwise the clay will stick in the mould. Follow the simple steps in the video and you should have success.

### **Making a press mould of a 3D object**



This video shows the making of a press mould of a 3D object. The most important part of this process is finding the casting lines. If your object has undercuts the plaster mould will grip to the original. We have chosen a very simple example to demonstrate, a plastic duck. If your object is more complicated or not plastic, you will need to use a liquid soap release agent to help the original come away from the mould.

Watch the video a few times before you begin and maybe start with a relatively simple object.

### **Health and Safety with plaster**



Plaster of Paris is available in most hobby or art shops and is not dangerous if used responsibly however a Risk Assessment is required. The two main risks with plaster are that it is a fine powder and that it generates heat when it sets. As with all fine powders they should not be inhaled and should be handled carefully to produce minimum dust. The heat produced by setting is only a risk if casting parts of the body. We would NOT recommend casting parts of the body. Plaster can occasionally irritate skin. To avoid this risk students and staff can wear gloves when handling plaster.

### **Using plaster in the classroom**



Never pour wet plaster down the sink as it will set and block the sink. Always allow plaster to set in the mixing container and then crack out. We would recommend only mixing small amounts of plaster at any one time.

Avoid getting plaster into clay that is to be fired in a kiln. Even small amounts of plaster will make the clay explode in firing.

Protect clothing with aprons or overalls.

### **The work of Peter Palmer in Portsmouth Museum**



In 1976 Peter was a student in Portsmouth and for his final show he produced a sculpture in stoneware clay made by casting his own body. We believe this work was press moulded using about thirty moulds and the finished fired sections were then joined together with fibreglass resin. You will notice from the film the clay shrunk during firing making the sculpture smaller than the original.

We would NOT recommend casting parts of the body because of the heat generated by plaster setting.

### **Development Activity**

There are a number of other resources on CultureStreet about artists and sculpture using clay that can be used to support this lesson plan. You could start with CultureStreet's section on Halima Cassell and the clay workshop inspired by her work. In this workshop Carving Clay Halima describes a sculpture project she was set at art college that inspired her and you can try the same project.

Andy Goldsworthy uses clay to cover a wall at Yorkshire sculpture Park

There is also a more basic an artist led workshop Clay workshop where students make animal themed clay pots which is more suited to whole class activity or a younger group.