



Still Image:

Freezing the world

Investigating paints / Teachers notes

Focus

This activity shows students how changing the composition of a paint can change its properties. Thus helping them to understand the effect the experimenting carried out by artists such as Leonardo da Vinci had on the survival of their paintings.

Objectives

Students will:

- learn about the effect of changing paint composition on the properties of a paint
- carry out a scientific enquiry on the effect of changing the composition of a paint on its properties.

Outcomes

All students will:

- carry out a scientific investigation on the effect of paint composition on its properties.

Most students will also:

- carry out a scientific investigation which they plan and carry out with a little help
- identify the effect that different compositions have on a paint.

Some students will also:

- carry out an investigation which they plan and carry out themselves
- explain the effects that different compositions have on the properties of paints.

Equipment (per group)

- Poster paint.
- Water.
- Egg white.
- Linseed oil (boiled).
- Linseed oil (raw).

- White spirit.
- White paper.
- White card.
- White cotton.

- Worksheet: *Investigating paints* (1 copy per student).

Running the activity

Prepare the egg white immediately before the lesson.

Ask the students if they have seen any old paintings and could they explain what has happened to them. They may have mentioned that they have faded or that the paint has flaked or that some of the painting has washed away. You can then introduce the idea that artists through the ages have experimented with the compositions of their paints to get different finishes or textures or for painting on different surfaces or even to make the painting last longer without degrading. Unfortunately, this experimentation sometimes leads to paintings not lasting! Give the students the *Investigating Paints* worksheet. Introduce the scientific enquiry they are going to carry out and the equipment and materials they can use. There are questions to help them plan, and ideas for testing the properties of the dried paint. Emphasise the need to be scientific and fair in planning and carrying out their scientific enquiries. The students should produce a poster to communicate the outcomes of their enquiry. They can also attach their results to the poster.