KUCAnews Pentecost Science 2

Light and Colour

Torn white light red

Materials:

a torch

milk

 a clear glass jar or bowl filled with water



What to do:

- Darken the room and shine the torch beam through the jar/bowl of water. The light on the other side of the jar should appear white.
- Slowly pour a thin stream of milk into the water until the light turns a dark orange, the colour of the sun setting on the horizon.

Explanation:

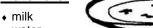
As the sun sets, the gas molecules, dust particles and pollutants in the atmosphere on the horizon scatter the light particles so it appears a different colour. The milk has the same effect on the light from the torch.

At Pentecost, the children might like to walk beneath the red light to create the illusion of fire on their heads.

A milky rainbow

This relates to Pentecost only in a general way – the rainbow is sometimes used as a symbol of the Holy Spirit – but I like it so much I couldn't resist including it! Ed.

<u>Materials:</u>



- water
 a saucer or shallow dish
- several different colours of food colouring
- liquid dishwashing detergent

Method:

- Cover the bottom of the saucer or dish with milk.
- Add 4 to 8 drops of the different coloured food colouring, in different areas of the milk.
- + Add 1 drop of detergent to the milk.
- The food colouring should begin to mix and swirl around.

Explanation:

The fatty oily molecules in the milk don't combine with the watery food colouring. Once the detergent is added the oily molecules break up and the food colouring can spread and move around.

First published in KUCA NEWS Autumn 2006 page 16

This activity has been produced by **KUCA News** in the SA Synod of the Uniting Church in Australia and is available free of charge. This material may be freely used in worship and related activities in churches, schools, kids' clubs etc. provided no fee is charged and **KUCA News** is acknowledged as the source.