

This activity contributes to the following badges:



Beaver
Experiment
Activity Badge



Cub Scientist
Activity Badge

Beavers | Cubs

Create colour-changing slime

STEM month, March Wow your section with a thermochromic reaction by making this glorious gloop

Time 30–60 minutes

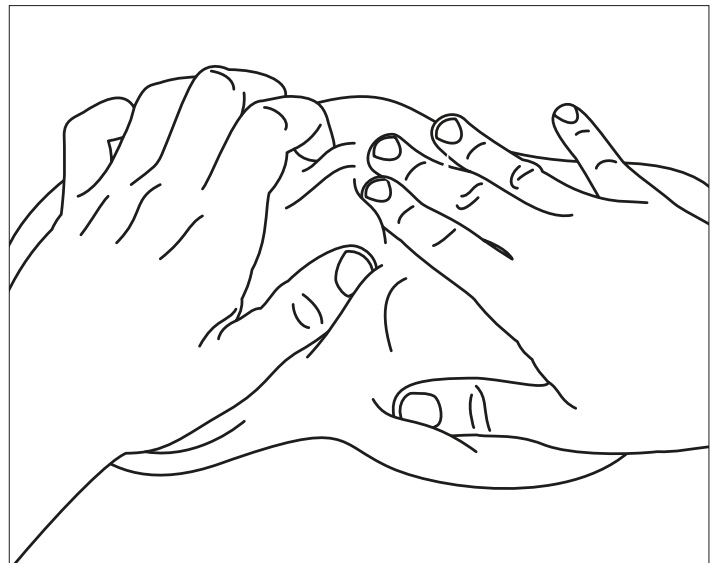
Equipment

- white PVA glue, 60ml
- water, 1tbsp
- thermochromic pigment (find online or at Maplin), 3tsp
- liquid starch (find online or at Lakeland), 60ml
- food colouring

Instructions

1 Firstly, discuss the colour scheme with your section. Thermochromic materials change colour depending on their temperature. Whatever colour your thermochromic pigment is will be the base colour of the slime when it's cold, whereas the food colouring you choose will influence the colour of the slime when it's hot. So if your pigment is blue and you choose red food colouring, you will have bluey-purple cold slime and pinky-red hot slime.

2 Ask a young person to tip the glue into a large bowl, and ask another to add the water and mix it until thoroughly combined. Next, a young person can add five drops of food colouring, before mixing it well,



and then another young person can add 3tsp of thermochromic pigment and stir it until completely mixed.

3 Get a young person to measure out 30ml liquid starch before adding it to the glue and mixing it till it's thick and slimy. Ask another young person to knead the slime with their hands before returning it to the bowl. The slime will most likely feel quite sticky, in which case gradually add more of the liquid starch and knead until it's not sticky any more. You'll probably need to use the full 60ml of liquid starch.

4 Now experiment! What happens when you put it on a glass full of ice or a mug of hot tea? How about when they breathe on it? How many other ways of making the slime change colour can the young people think of? Make sure that they don't put the slime across their faces or ingest any of it.

Take it further

Discuss the ways in which thermochromism is used within the wider world, for instance in bath thermometers or within children's bath toys. What other ingenious uses can your section think up?

Thought about peer leadership?

Delegate specific tasks to your peer leaders.