



Changing colour

Resene

the paint the professionals use



Changing colour

Some colours can seem almost invisible but will change when they are heated. Years ago prisoners used to write secret notes using their saliva or sweat and smuggle them out to friends and family. The notes would look like a blank piece of paper. When the other person received the notes they would heat them up and the words that had been written would change colour so they could be read.

Now try it yourself...

You can write invisible notes to your friends too! Just follow these simple steps:

You will need:

- lemon
- lemon juicer
- saucer
- paintbrush
- white paper
- iron
- book to record results

1

Get a lemon and squeeze the juice out of it into a saucer.

2

Dip a paintbrush into the lemon juice and paint a message onto a white piece of paper. Leave the paper to dry. As it dries the areas you have painted with the lemon juice will become hard to read.

3

Ask a friend or family member to see if they can read what you have painted. Try this out with a few different people and record what they can see.

4

Now it is time to heat the paper and see what happens to the words. Ask an adult to iron over the paper on the opposite side to the one you painted.

5

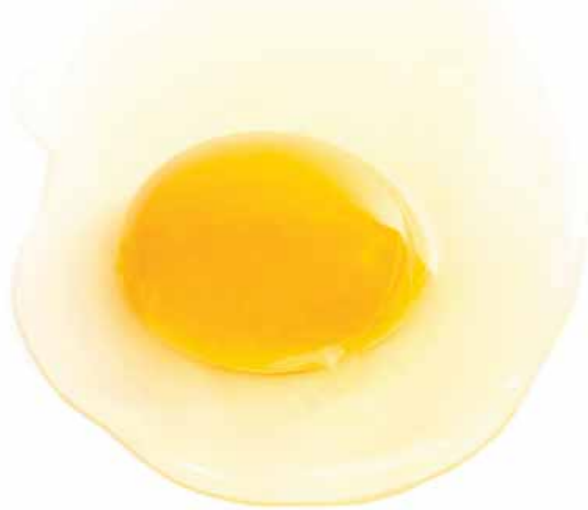
The heat will make the lemon juice change colour. Show the message to each person now and see if they can read the message.

6

Once the heat has been added and the picture has changed you cannot change it back to being invisible. It is a little like cooking. Once you have cooked something you cannot change it back into being raw again.

Lots of other things change colour when they are heated. Wood on a fire will change from being brown to being hot red and then finally black once the wood is fully burnt. Red meat will turn to brown as it is cooked.

Some things only change colour a little when they are heated. If you boil an egg the egg yolk will get lighter once the egg is hardboiled, changing from the bright yellow egg yolk of a raw egg to a more pastel yellow of a solid egg yolk. The egg white changes from being nearly transparent when raw to opaque white when cooked.



Over 15,000 years ago humans used colour to paint pictures of animals on cave walls. They didn't have the paints that we have today so they used reds and yellows from rocks and earth and blacks and greys from the ash and burnt wood of their fires. You can draw pictures like humans did all those years ago. Ask an adult to get you a piece of cold burnt wood (charcoal). Use this to draw on a piece of paper – you will find the charcoal leaves behind a black mark where you draw, much like using a very thick pencil.

Learn more about colour with the Resene Everywhere colour series. Modules include:

Changing colour
Colour wheels
Colour and nature
Colour in art
Colour of light
Decorating colour
Dissolving colour
Dotted colour
Everywhere colour
Eyes and rainbows
Filtering colour
Illusion and tricks with colour
Making colour - Dye
Mixing colour
Reflecting colour
Safety colour
Seeing colour - Animals
Seeing colour - Humans

In Australia:

PO Box 785, Ashmore City, Queensland 4214
Call 1800 738 383, visit www.resene.com.au
or email us at advice@resene.com.au

Resene

the paint the professionals use

Colours printed as close as printing process allows.

In New Zealand:

PO Box 38242, Wellington Mail Centre, Lower Hutt 5045
Call 0800 RESENE (737 363), visit www.resene.co.nz
or email us at advice@resene.co.nz