

Invisible Ink

You will need:

- Lemon juice
- Cotton bud or a paint brush
- Cup
- Paper
- Candle



1. Add about 1 tablespoon of lemon juice to the cup. Fresh squeezed or bottled juice will work just fine.
2. Soak the cotton bud or paint brush in lemon juice and use it to write a message on your paper.
3. Once it is dry, it will be invisible.
4. CAREFULLY hold your paper over a lit candle to reveal your message – try not to set fire to the paper. Get an adult to help you and make sure you have a bowl of water next to you just in case!

You can also “iron” your paper but don’t use the steam setting. Put a dry cloth between the paper and iron to protect the iron’s surface.

THE SCIENCE

The paper discolours before the rest of the paper gets hot enough to do so. Lemon juice contains carbon compounds which are colourless at room temperature. Heat breaks down these compounds and releases the carbon. When carbon comes in contact with air (specifically oxygen), oxidation occurs and the substance turns light or dark brown.

Try different fruit juices – or milk! – and compare the results.