

Invisible Ink

Have you ever wondered how invisible ink works? Have you thought about where it is used and why? Or how you can reveal a message written in invisible ink?

For this week's activity, we thought it would be great if you could make your very own invisible ink and use it to write messages. There are lots of fun things you can do with invisible ink, such as incorporating it into games. Perhaps you could make a treasure hunt with all the clues written in invisible ink. Or maybe you could write a secret message or shopping list all in invisible ink.

ADULT SUPERVISION REQUIRED

Suggested instructions:

Equipment and resources

- Plastic bowl.
- Cup of water.
- A few cotton buds.
- Lemon juice.
- Spoon.
- Paper.
- Heat source – Lamp/Radiator (ADULT SUPERVISION).

Steps:

1. Squeeze a lemon or place a little lemon juice in a bowl.
2. Add in a little water to the lemon juice and stir it.
3. Using a cotton bud, write a message on a piece of paper by dipping it in the mixture.
4. Wait for the message to completely dry.

5. **ADULT SUPERVISION** – Ask an adult to help you test your invisible ink has worked by placing the now dry piece of paper near a warm lamp or radiator.

Thinking time:

- Lemon juice contains acid. This acid is almost invisible when kept at normal room temperature. The messages you have written will contain a lot of this invisible acid. However, when the acids in lemon juice are heated beyond room temperature, the acids start to change colour; therefore, an invisible message will now appear visible.
- There are lots of other methods for making invisible ink. Perhaps you could research and find out about them. Remember to always work with an adult when doing any experiments in the home.

Follow up:

- Why not explore developing tray and create some text for your family or friends to reveal? There are lots of premade examples to for you to explore.