

Invisible Ink

Suggested Grades 3+

Objective Students will be introduced to the concept of chemical change when they observe the chemical change that occurs between vinegar or lemon juice and heat.

Materials

- vinegar or lemon juice
- toothpicks or paintbrushes
- pieces of paper
- a heat source

Method

- Have each student dip their toothpick or paintbrush into the invisible ink (vinegar or lemon juice) and write a secret message on a piece of paper. Don't press too hard. Let dry.
- Have each student give you their piece of paper and pass the paper back and forth over the heat source for them. Be careful not to let the paper get too close or too hot, it can catch on fire. What happens? (Gradually the writing should appear because heat causes a chemical change in vinegar or lemon juice. The "invisible ink" chars at a lower temperature than the paper, so the writing appears faint and brown.