

Name:

Date:



## Enzymic browning

### Learning

The aim of this session is to:

- demonstrate enzymic browning;
- find out how enzymic browning can be prevented or reduced.

### You will need

- 1 apple (or a potato/iceberg lettuce);
- 3 dishes or saucers;
- 150ml water;
- 5g sugar;
- 1 lemon;
- knife;
- chopping board;
- juicer.



### Instructions

1. Prepare 3 clearly-labelled dishes, containing each of the following:
  - 50ml water;
  - 50ml water and 5g sugar;
  - 50ml water and juice of half a lemon.
2. Slice the apple, potato or iceberg lettuce into approximately ½ cm thick slices.
3. Place one or two slices onto each dish.
4. Leave the slices in the dishes for about half an hour.
5. Check on the three slices. Which has browned the most and which the least? Write down your observations.

### Questions

Think about these questions after you have completed the experiment:

- What causes the sliced fruit or vegetable to go brown?
- What is in the dish with the slice that browns the least?
- How does this substance prevent browning?
- Describe other methods that could prevent these slices from going brown.