

**Experiment: Testing for starch****Background**

Iodine forms a blue-black complex with soluble starch. This can be used to identify those foods that contain starch.

**Apparatus**

- Clamp stand + clamp
- Test-tubes (3)
- 400 ml beaker with water
- Spirit burner
- Lighter
- Dropping pipette
- Scalpel
- White tile

**Chemicals/substances**

- Potato
- Bread
- Apple
- Iodine solution (1% in potassium iodide  $0.1 \text{ mol dm}^{-3}$ )

**Instructions**

- Collect a small piece of potato.
- Place in a boiling tube.
- Add about half a test-tube of water and fix at an angle using a clamp and stand.
- Heat until boiling using a spirit burner.
- Allow to cool by standing in a beaker of cold water.
- Add a five drops of iodine solution and observe.
- Repeat the process with (ii) apple and (iii) bread.

**Data recording (qualitative data)**

| Experiment  | potato | apple | bread |
|---|--------|-------|-------|
| Appearance before addition of 5 drops of iodine solution. |        |       |       |
| Appearance after addition of 5 drops of iodine solution.  |        |       |       |

**Data analysis**

What do your observations tell you?

**Conclusions**

Which types of food contain starch?

**Evaluation**

You should think about all of the things that you did in the course of the experiment.

As your data is qualitative (purely observation) there are no inaccuracies.

Can you make suggestions that would improve or extend the experiment?