

Mandatory Biology Experiments

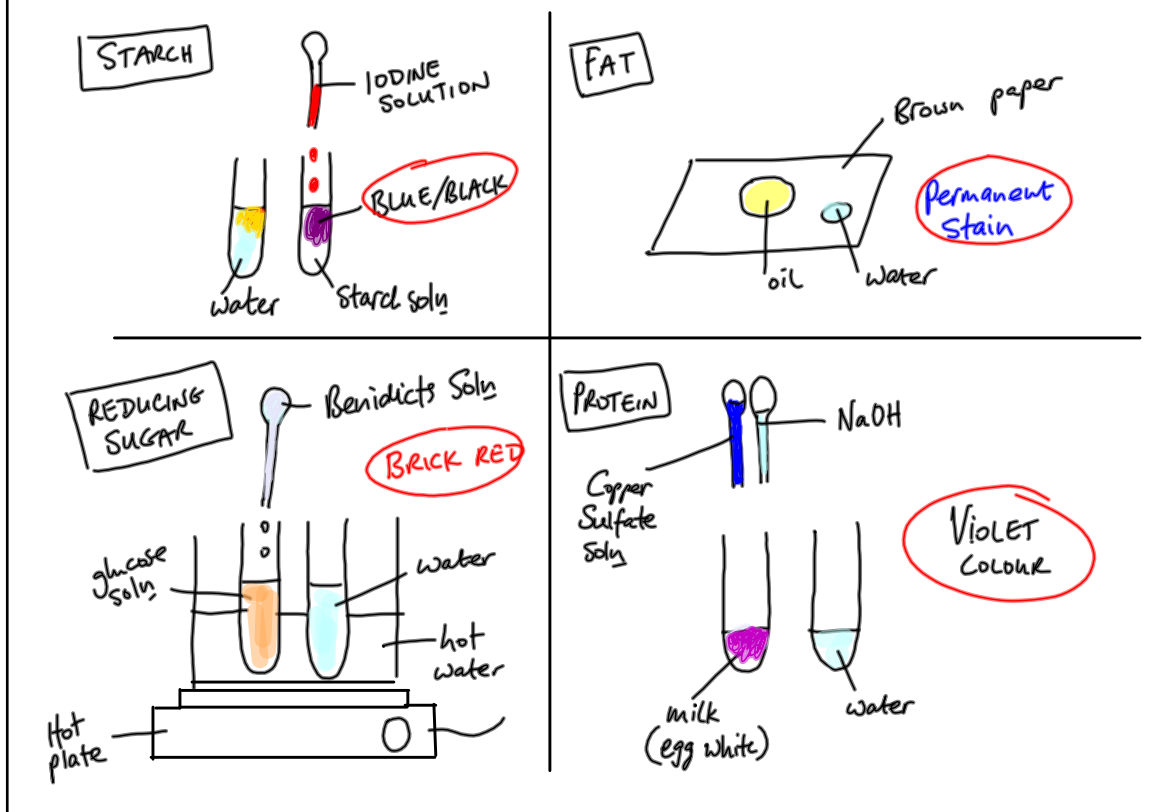


Junior Cert Science

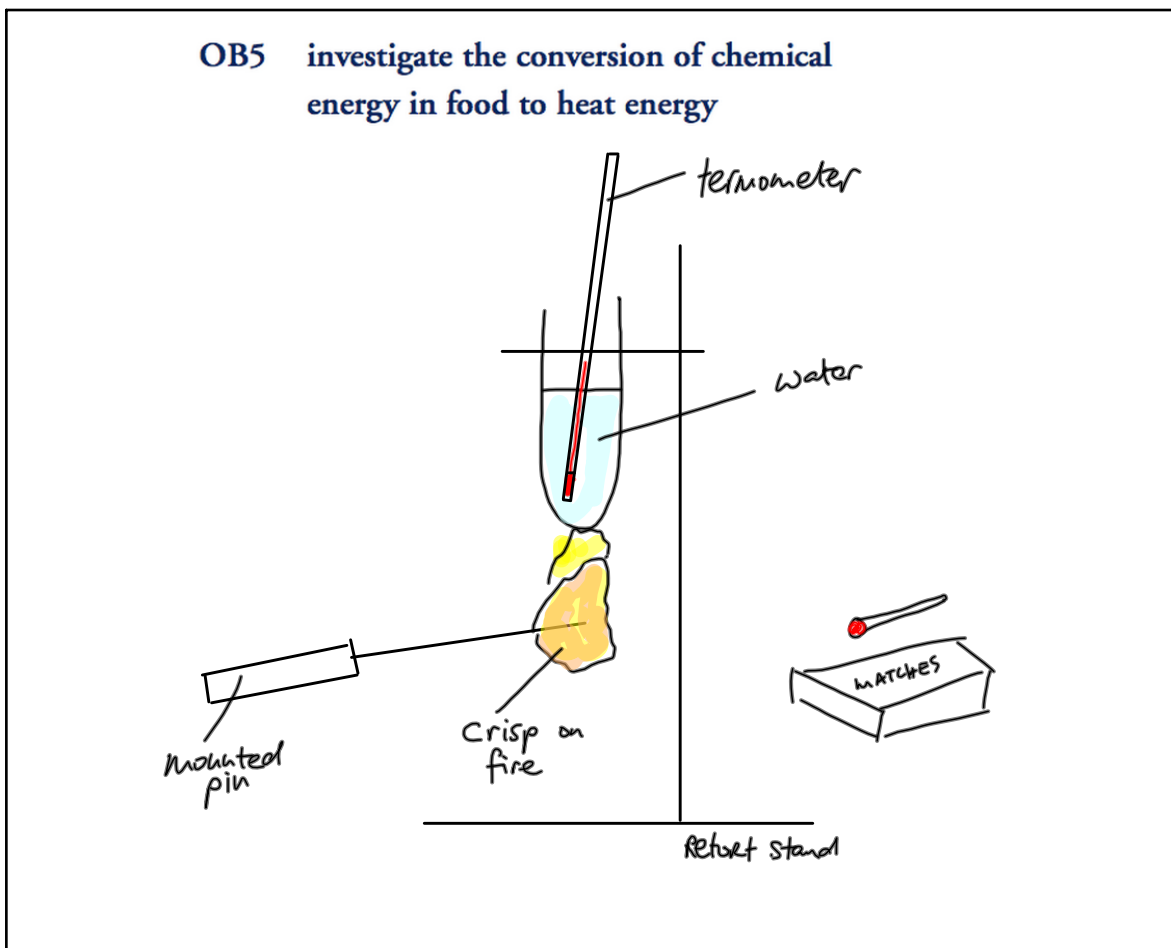
Mandatory Biology Experiments

- OB3 Qualitative food tests for starch, reducing sugar, protein and fat.
- OB5 Investigate the conversion of chemical energy in food to heat energy.
- OB8 Investigate the action of amylase on starch; identify the substrate, product and enzyme.
- OB11 Carry out qualitative tests to compare the carbon dioxide levels of inhaled and exhaled air.
- OB39 Investigate the variety of living things by direct observation of animals and plants in their environment; classify living organisms as plants or animals, and animals as vertebrates or invertebrates.
- OB44 Prepare a slide from plant tissue and sketch the cells under magnification.
- OB49 Show that starch is produced by a photo-synthesising plant.
- OB58 Investigate the conditions necessary for germination
- OB59 Study a local habitat, using appropriate instruments and simple keys to show the variety and distribution of named organisms.
- OB65 Investigate the presence of micro-organisms in air and soil

OB3 carry out qualitative food tests for starch, reducing sugar, protein and fat



OB5 investigate the conversion of chemical energy in food to heat energy



OB8

investigate the action of amylase on starch;
identify the substrate, product and enzyme

37°C

SUBSTRATE	ENZYME	PRODUCT	ENZYME
STARCH + AMYLASE	→	MALTOSE + AMYLASE	(Sugar)

Amylase

ADD IODINE SOLN

10 minutes

Starch Soln + Amylase

Starch Soln

Water bath 37°C

Split A

A1

A2

B

IODINE SOLUTION

STARCH TEST

Blue black

Test A1 for Sugar

Benedict's Solution

hot water

Brick Red

SUGAR TEST