



LS Science List of Apparatus

This is not a comprehensive list of the items needed but it does include those items that might not be readily found within the home. Most of the experiments are optional, but there are some those that form parts of your assignments we have listed at the beginning. We have tried to keep these experiments as low-tech as possible.

General

You will need a basic calculator for all the assignments and may need one for the practicals too.

Apparatus for required practicals

Note – any equipment that you cannot source for the practicals let your tutor know and they should be able to advise you on adapting the experiment.

Module 1: Practical 1 - Osmosis

- Raw potato (you could use another root vegetable such as yam)
- Peeler
- Sharp knife
- Chopping board
- Cups or other containers
- Sugar or salt
- Teaspoon
- Kitchen scales – electronic ones are most accurate and measure smaller masses



Module 5: Practical 2 – Combustion

- Measuring jug
- Glass jars
- Candles or tea lights
- Matches or lighter

Module 9: Practical 3 – Craters

- Sand or soft dry soil
- Tray or box to hold the sand
- Stone or plasticine
- Ruler
- Tape measure

Apparatus for optional experiments

These experiments are suggested in the course. They are optional but as well as being enjoyable and interesting they will help you better understand the science behind them.

Module 1

- Microscope ([Amscope](#) has student microscopes available in the UK, Europe and the US. Though similar ones are available in other countries.)
- Tennis ball
- Tape measure or metre rule
- Thermometer (A spirit (not **mercury**) filled glass one with a good range (0 to 110°C is best and can be used in other experiments. If you do an internet search for a homebrewing or wine making thermometer you should find a suitable one)



Module 2

- Pan or tray
- Lemons
- Cutting knife
- Butter knife
- Spoon
- Measuring cup
- Baking soda (sodium bicarbonate)
- Food colouring
- Corn flour
- Bowl
- Syringe without a needle (you should be able to get one of these from a pharmacy or drugstore)
- Jelly cubes
- Fragrance or air freshener
- Plastic bottle with lid
- Plasticine or sweets
- Toothpicks

Module 3

- Tissue paper
- Balloon
- Woolly jumper or own hair
- A magnet
- Paper clips
- Bathroom or Body weight scales

Module 4

- Sheep or pig heart and lungs from a butchery (a reminder that this practical is completely optional, you do not have to do this if you don't want to, and you should get an adult to help you!)
- Disposable gloves
- Sharp knife and chopping board if you want to dissect them
- Straw
- Bottle
- Bottle
- Large bowl or sink full of water
- Paper fasteners / split pins
- Body weight scales
- Can of beans or soup

Module 5

- Baking powder
- Lemon juice
- White vinegar
- Beetroot juice
- Clear glass or cup
- Baking soda
- Epsom salts
- Hydrogen peroxide
- Steel wool
- Dry yeast
- Thermometer
- Acetone (nail polish remover)
- Styrofoam packing peanut
- Ice

Module 6

- Slinky or rope
- Plasticine or similar modelling clay
- Shallow trough of water/basin
- Rice
- Drum / speaker
- Ruler
- Plastic drinking cup
- Cotton string or yarn
- 1 paper clip
- Paper towel
- A nail
- Scissors
- 2 small mirrors
- Cardboard A4 size or larger

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- Knife – get an adult to help!
- Sticky tape or glue
- Paper
- Marker Pen
- Drinking glass
- *Empty crisps tube (Pringles)*
- *Pushpin*
- *Masking tape*
- *Aluminium foil*
- Or
- *Stiff black card (at least 45 x 25 cm)*
- *Black tape*
- *Metal ruler*
- *Aluminium can*
- *Needle or dressmakers pin*
- *Cork and pair of pliers*
- *Fine emery or sandpaper*
- *Velcro strips*

Module 7

- Flower
- Sharp knife
- Paper
- Sticky tape
- Bean seeds
- Pea seeds
- Container like a plastic cup or plant pot
- Cotton wool, tissue or soil

Module 8

- Red cabbage
- Sharp knife
- Pot to boil water in (or blender)
- Strainer or colander
- Glass bowl
- Clear cups or glasses
- Household liquids to test (vinegar, baking soda, juices, soaps, bleach, ammonia, and anything else you want!) Do this with an adult.
- Something to stir with
- Indigestion tablet
- Table salt – sodium chloride

- Distilled Water
- A clean, clear glass container – a jam jar is perfect
- String
- A spoon for stirring.

Module 9

- Cardboard
- Coloured paper
- Scissors
- Sticky tape
- String
- Pencils, crayons or felt pens
- Compass (for drawing, not navigation)
- Oreo cookies