



Science Summer Project

In preparation for learning Science at KS3 we would suggest you practice 3 key skills:

Observing and Recording, Describing, Explaining.

There are two experiments each for Biology, Chemistry and Physics for you to try out these skills at home. Enjoy!

BIOLOGY

Detective Work

1. Press a finger onto a clean mirror or glass surface.
2. Scrape chalk over a plate, making fine powder.
3. Using a small dry brush, GENTLY dust lots of chalk powder onto the fingerprint.
4. GENTLY blow away any excess powder.
5. To lift the fingerprint off the mirror, carefully lay a piece of clear sticky tape onto the print.
6. Press flat, then carefully peel off.
7. Use a magnifying glass to view your print if you have one.

Compare prints of family members or friends. What patterns do you see?

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Colourful Celery

1. Take a bunch of celery, choose stalks with lots of leaves at the top.
2. Cut the stalks about 3cm from the base (Make sure an adult is helping you).
3. Add 5ml of food colouring to a vase of water (Red works best).
4. Place the stalks in the vase and leave for a few hours.

What has happened to the leaves?

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If you cut the stalks what do you see? Draw a picture of the cut stem.

Can you explain what has happened?

CHEMISTRY

Soap Powered Boats

1. Draw and cut out a fish.
2. Colour it using a crayon.
3. Fill a roasting tin with water to 2cm deep.
4. Add a drop of liquid soap or detergent to the fish's tail.
5. Place the fish at one end of the tray and let go.

Describe what happens and explain why it only works once.



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Tie Dyed Milk

1. Fill a cereal bowl with whole cream milk.
2. Add one drop of 5 different food colours, spread out in the bowl.
3. Add one drop of washing up liquid.
4. Watch what happens.

Use the space below to describe what you see.

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PHYSICS

Disappearing Penny

1. Place a penny under an empty glass.
2. Slowly fill the glass, watching the penny all the time.

Use the space below to describe what happens.

Challenge: Can you explain what happens?

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Shadow Puppets

1. Using stiff card and a straw, create a puppet. e.g. a ghost with cut out mouth and eyes.
2. In a dark room, shine a lamp or torch on to a blank wall.
3. Hold your puppet in front of the lit lamp.

Record your observations in a table below.

- What happens as you move the puppet away from the light, tilt or twist it?
- What happens if you move the light instead?

Name _____ **Form Tutor** _____