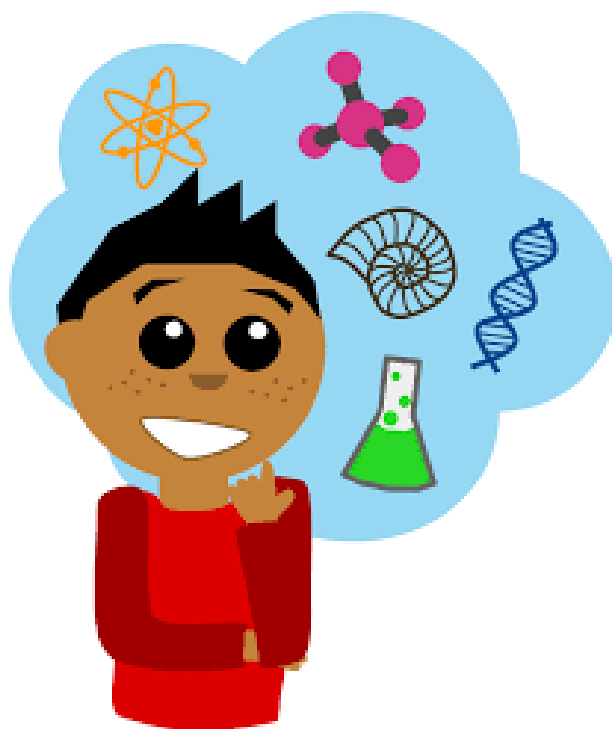


Y6 Transition Science Booklet

In Science there are three subjects Biology, Chemistry and Physics throughout this booklet you will have the chance to complete a practical experiment for each subject.

Enjoy – We are looking forward to meeting you all!



Head of Biology - Mr Davies - Observing Nature

Watch the video about a NASA engineer and squirrels:
<https://www.youtube.com/watch?v=hFZFjoX2cGg>

Think about these questions:

- How does the video show competition for food?
- How are the squirrels adapted to be so good at the obstacle course?
- What does the scientist do to make sure he is observing the squirrels act naturally?
- What does the scientist do to make sure the squirrels are always safe and unharmed?
- What do you think is the most impressive part of this video?



You then can choose to do one of the following tasks:

Go on a Nature Walk

- Take pictures of 3 different types of leaves
- What can you hear? (Episode 2 of Springwatch on BBC iPlayer has some tips to help you identify bird calls (about 12mins in))
- Can you see any animals or insects?



Build a Bug Hotel (ask an adult where you can put it)

- Look at this website for inspiration:
<https://www.forestholidays.co.uk/forestipedia/how-to-build-a-bug-hotel/>
- You do not have to use materials that are difficult to get – you can place sticks and other natural bits in a cut down plastic bottle to hang somewhere
- Can you see any insects that have “checked in”? (Be careful not to disturb them)

Design your own obstacle course for squirrels (or animal of your choice)



- What is their reward?
- What have you included in the course and why?
- How would you make sure the animals are safe?

It is really important you do not build this obstacle course!

Head of Chemistry - Miss Wilkins - Chemistry Practical on Acids and Alkalis



Practical we are replicating: <https://www.youtube.com/watch?v=mQxknvSKwU4>

What you will need:

- Red cabbage
- Warm water
- Knife
- Sieve
- Clear container (e.g. glasses)
- Household substances to test

Instructions:

1. Cut the cabbage up into strips
2. Add warm water and stir/mush to make the water change colour (you can use a blender like in the video, but you don't need to! You can boil the mixture in a saucepan to get a really strong colour)
3. Sieve out the cabbage pieces – the solution is your indicator
4. Add a household substance into the clear container.

Head of Department – Miss Campbell’s Physics

Practical – Pressure



Practical we are replicating:

<https://www.youtube.com/watch?v=K5g6P8-GmBg>

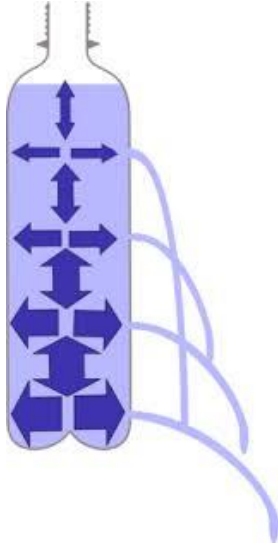
What you will need:

- Large soda bottle (e.g. fizzy pop 1.5L)
- Sharp tool such as a screwdriver or nail
- Sellotape
- Water
- Large sink/bath/outdoor space
- Ruler (can be done without)

Instructions: <https://www.bbc.co.uk/bitesize/topics/z4brd2p/articles/zn2r97h>

1. Take the bottle and piece 3 holes in the side roughly the same distance apart at different heights – be careful and ask someone for help
2. Place Sellotape over the holes as tightly as you can
3. Fill the bottle with water – leave the lid off
4. Put the bottle outside or next to the sink
5. Rip off the sellotape in one go
6. Try to measure how far each jet of water travels and put into the table below (you can repeat this by putting on new Sellotape, so just measure one each time)

Extension: Try the experiment with the lid on the bottle – what is different? Can you explain why?



Results table:

Hole	Distance water jet travels
Top	
Middle	
Bottom	

Final Task: Word Search with Key words from the practical Experiments

NKUDOFYMIMJIWPTSEZKFMSEEN
FLBGZPPUMVITRIDRAERSPNTTN
XCUBNGKABMSVOARAGSLPELVG
RONGIBADSBUDACIDRREBTILEZ
QELSDPOUAGUAJRSTNALPMEGPQ
YORPZESAIBMEZIAIXTIAOIGPAK
OLPQXBOAPQTDVOQQOMFBHRTGL
SYBCCWHBNYJLQQFKEWDLQIHQ
OROJXWDCRKQLANIMALSTZQQY
QKM

ACID_ALKALI_ANIMALS

CABBAGE_DENSITY_LIQUID

NEUTRAL_ORGANISM_OXYGEN

PLANT_SPRESSURE_RESPIRATION