

Life cycles and puberty

What changes do males and females go through at puberty?



Hair growth
Body odour
Spots

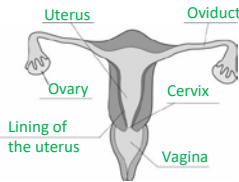


Breasts develop
Periods start
Hips widen

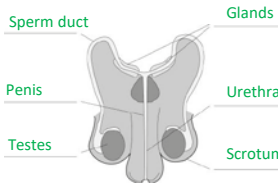
Voice breaks
Hair on face and chest
Penis becomes larger
Sperm is produced

Reproductive organs

Label the parts of the male and female reproductive organs



Female



Male

Fertilisation

Fill in the blanks

1. The semen containing sperm is **ejaculated** into the woman's **vagina**.
2. The sperm swim through the **cervix** and **uterus**.
3. If a sperm meets the egg it can fuse with it. This is called **fertilisation**.
4. The fertilised egg (zygote) divides into an **embryo** and travels into the uterus.
5. The embryo **implants** into the lining of the uterus. The woman is now pregnant.

Summarise each stage of the menstrual cycle

Day 1-7: **First day of period**

Day 7-13: **Lining of the uterus builds up again**

Day 14-17: **An egg is released from an ovary into the oviduct (ovulation), the egg then travels down into the uterus**

Day 18-28: **If the egg is not fertilised the lining of the uterus breaks down**



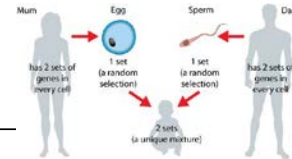
7B2 Variation and Reproduction Essential Knowledge Sheet

Name of the group	Examples of animals in the group	Key features of the group
Fish	Clown fish, sting ray	Fins, gills, scales, lay eggs in water
Mammals	Whale, dog, elephant, giraffe	Give birth to live young, have fur, produce milk, warm blood
Reptiles	Turtle, snakes	Waterproof eggs, scales, cold blood
Amphibians	Frog, toad	Moist skin, jelly covered eggs in water, gills, cold blood
Birds	Parrot, pigeon, penguin	Lay hard shells eggs, wings, feathers, beaks

Classification

Fill in the table to classify groups

How do we get our characteristics?



Characteristics

Give some examples of characteristics which could be inherited or are caused by the environment

Inherited	Environmental
Eye colour	Weight
Gender	Language
Hair colour	Scars

Hazard symbols

Explain each symbol



Corrosive
– could burn skin



Toxic – poisonous if ingested



Flammable
– can set on fire easily



Irritant – can be itchy on skin

Acids and Alkalis

Fill in the table

Key Term	Definition	Examples
Acid	Anything pH 1 - 6	Car battery acid Vinegar
Alkali	Anything pH 8-14	Soap Washing powder

Indicators

Complete the table – what does a positive result look like?

Indicator	Acid	Alkali
Blue litmus paper	Red	Blue
Red litmus paper	Red	Blue
Universal	Red - green	Green – purple/blue

Neutralisation

Complete the method

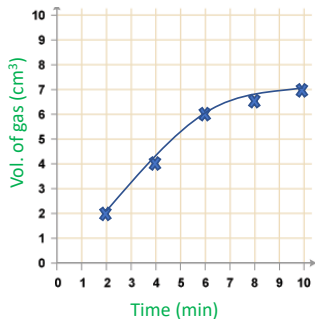
1. An acid will react with an **alkali** Reacting an acid with an alkali is called **neutralisation**
2. Measure out 20cm³ of acid, and pour it into a **beaker**
3. Add a few drops of **Universal Indicator** solution. This will turn it a **red** colour. Its pH will be about 1.
4. Carefully add your alkali with a **pipette**. The colour will turn orange, and it is now about pH 4.
5. Eventually you have neutralised the acid. The colour will now be green, it will be pH 7. A solution that is not an acid and not an alkali is described as **neutral**.



7C2 Acids and Alkalis Essential Knowledge Sheet

Plotting graphs

Plot the data on the graph and label the axis

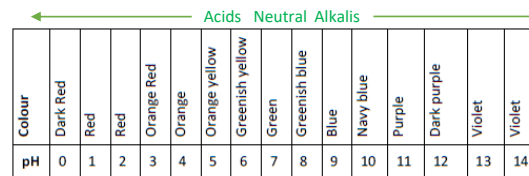


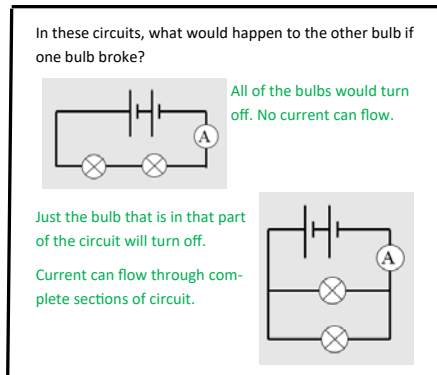
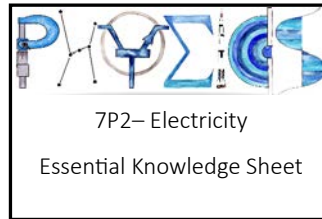
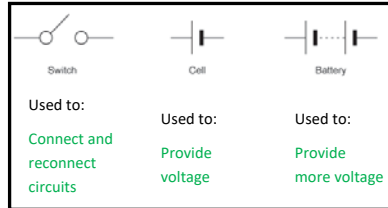
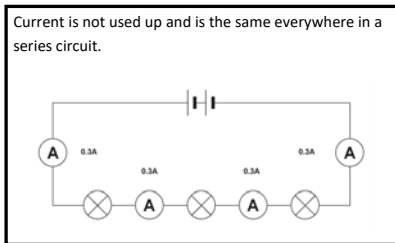
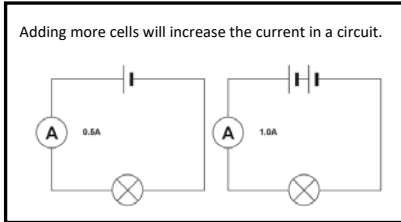
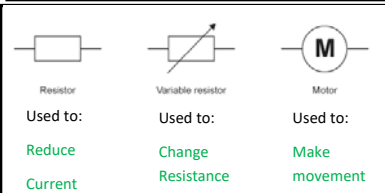
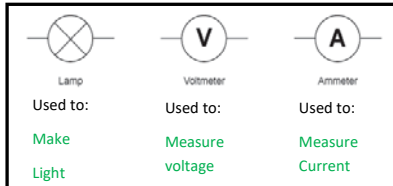
Time (min)	Volume of gas collected (cm ³)
2	2
4	4
6	6
8	6.5
10	7

pH scale

What does the pH scale tell us?

Label the range of acids, alkalis and neutral on the scale





A conductor is a material that allows electrical charge to pass through it. E.g. **any metal, copper, steel**

An insulator is a material that DOES NOT allow electrical charge to pass through it. E.g. **wood, plastic**

