



Year 7 Science

Knowledge from topics being covered on this assessment – Cells and reproduction, Particles, Energy and Separation Techniques

- Labelling an animal and plant cell
- Knowing the function of the different organelles within an animal and plant cell
- Identifying the sex cells (sperm and egg) and describing where they are produced
- Describing how particles are arranged in a solid, liquid and gas
- Understanding how pressure is linked to particles in a gas
- Naming different energy stores
- Linking energy stores to energy transfers – chemical to kinetic for example
- Identifying non-renewable energy resources (fossil fuels) and renewable energy resources (wind, solar, hydroelectric, geothermal, tidal)
- Describing disadvantages of renewable energy resources such as wind turbines
- Investigating the insulating properties of different materials
- Understanding different separation techniques and when they are useful – filtration, and distillation (which involves evaporation and condensation)
- Using chromatography to identify what colours a mixture of dyes contains
- Using an indicator to identify acids and alkalis
- Identifying parts of the Periodic Table – for example, metals and non-metals
- Knowing the difference between an element and a compound
- Writing word equations for simple chemical reactions
- Describing the structure of an atom – protons, neutrons and electrons
- Understanding how electrons are added into shells for different elements and linking this to the position of that element in the Periodic Table

Skills being covered on this assessment

- Identifying different pieces of scientific equipment and what they are used for
- Identifying how scientists keep themselves safe during practical experiments
- Using a bar graph and plotting a scatter graph with a line of best fit
- Identifying practical variables – independent (what you change), dependent (what you measure) and control variables (what you keep the same to keep it fair).
- Inferring a conclusion from practical results

How to revise?

1. Use the KS3 BBC Bitesize website – revision sections, videos & multiple-choice tests
<https://www.bbc.co.uk/bitesize/subjects/zng4d2p>
2. Use the Year 7 Knowledge Organiser provided for you (please ask your teacher for another copy if you have misplaced this).
3. Make flashcards per topic with questions on the front, answers on the back and then ask someone to quiz you on the cards or self-quiz yourself.