Finham Park School

KS3 Biology Assessment Statements – Year 8 Biology

Working Towards		Working At		Greater Depth	
I know what types of food people should have for a balanced diet.	☐	I know why different food groups are important in the diet and can calculate energy requirements.	☐	I can suggest improvements to someone's diet, based on their personal requirements.	☐
I can label the digestive system.	☐	I know the function of the digestive organs and how they are adapted.	☐	I can explain the effects if parts of the digestive system aren't working.	☐
I know what plants need to grow.	☐	I know the word equation for photosynthesis.	☐	I can describe how to investigate the rate of photosynthesis.	☐
I can label a diagram of the respiratory system.	☐	I know the role of each part of the respiratory system.	☐	I can explain how the alveoli are adapted for gas exchange.	☐
I can describe the pathway air takes from mouth/nose→ lungs.	☐	I can describe how we breathe.	☐	I can explain how we breathe- referring to pressure and volume changes.	☐
I can state in what part of the plant oxygen and carbon dioxide enter and leave.	☐	I can state the keyword used to describe the tiny holes on the underside of a leaf and their function.	☐	I can identify what conditions may change whether the stomata are open/closed.	☐
I know the difference between aerobic and aerobic respiration.	☐	I know the word equation for aerobic and anaerobic respiration and when each of them is used.	☐	I know the symbol equation for aerobic respiration.	☐
I know what fermentation is.	☐	I know how fermentation in micro-organisms benefits humans.	☐	I can describe how to investigate yeast fermentation.	☐
I know that we inherit characteristics from our parents.	☐	I know how we inherit characteristics from our parents.	☐	I know some diseases that can be inherited from parents.	☐
I can describe the structure of DNA.	☐	I know what chromosomes, genes and DNA are.	☐	I can explain how to extract DNA.	☐
I know how different organisms are adapted to their environment.	☐	I know how competition drives natural selection.	☐	I know the difference between natural selection and artificial selection.	☐
I know what extinction and biodiversity mean.	☐	I know what can cause extinction and the effect this has on biodiversity.	☐	I know how extinction can be prevented.	☐
I know what random sampling is.	☐	I know why it is important that sampling is random when investigating plants and how to make it random.	☐	I can explain how random sampling is used to estimate the abundance of plant species.	☐

CURRICULUM INTENT: Finham Park Science department aims to instill a love of learning and provide students with powerful knowledge needed to understand the world around them. We promote curiosity by equipping students with the skills they need to question processes. We explore scientific principles such as analysing data, drawing conclusions and problem solving as well as ensuring students are scientifically literate. We want all of our students to have the depth of knowledge and skills to be successful and to make a positive contribution to society.

Finham Park School

KS3 Chemistry Assessment Statements – Year 8 Chemistry

Working Towards		Working At		Greater Depth	
I can label a simple (Dalton) atomic model.	☐	I can describe differences between atoms, elements and compounds.	☐	I can explain the differences between elements, compounds and mixtures including their physical and chemical properties.	☐
I can name chemical compounds.	☐	I can use and interpret chemical symbols and formulae for elements and compounds.	☐	I can interpret chemical formulae involving brackets.	☐
I can use the Periodic Table to identify periods and groups; metals and non-metals.	☐	I can describe the arrangement of the periodic table.	☐	I can explain the properties of metals and non-metals.	☐
I can carry out simple chemical reactions such as combustion and oxidation.	☐	I can describe indicators of chemical reactions.	☐	I can differentiate between chemical and physical changes.	☐
I can define thermal decomposition.	☐	I can safely investigate thermal decomposition of chemical compounds.	☐	Can explain what thermal decomposition.	☐
I can write simple word equations.	☐	I can describe that mass is conserved in a chemical reaction.	☐	I can balance simple chemical equations.	☐
I can measure temperature changes in chemical reactions. I can state the use of a catalyst.	☐	I can describe endothermic and exothermic reactions.	☐	I can explain endothermic and exothermic reactions in terms of energy transfer.	☐
I can recall the products of the reaction between metals with acids, oxygen and water.	☐	I can carry out chemical reactions and record observations.	☐	I can write chemical equations and name salts.	☐
I can define a displacement reaction.	☐	I can carry out displacement reactions and place metals in order of their reactivity.	☐	I can use observations to make predictions about displacement reactions.	☐
I can recall what a metal ore is.	☐	I can describe how metals can be extracted from their ores.	☐	I can use the reactivity series to make predictions about extraction of metals from their compounds.	☐
I can recall examples of sedimentary, metamorphic and igneous rock.	☐	I can describe how they are formed.	☐	I can explain each stage in the rock cycle.	☐

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KS3 Physics Assessment Statements – Year 8 Physics

Working Towards		Working At		Greater Depth	
I know Newton's laws of motion.	☐	I can draw accurate force diagrams to represent a object in equilibrium.	☐	I can use the equation F=ma to calculate the acceleration caused by different forces.	☐
I know what elastic means.	☐	I can describe Hooke's law.	☐	I can use the graph to find out how much energy has been stored in the spring.	☐
I know what a turning force is.	☐	I can describe what is meant by a moment and calculate the moment of a force.	☐	I can explain how levers are used to reduce the force required to complete an action.	☐
I can identify high pressure and low pressure in a range of different situations.	☐	I can calculate pressure.	☐	I can rearrange the pressure equation to find force applied or area.	☐
I know how pressure in fluids is different to pressure in solids.	☐	I can explain why pressure increases with depth.	☐	I can calculate pressure in fluids to explain how a hydraulic device works.	☐
I can name magnetic materials.	☐	I can explain how the poles of magnets interact and represent the field lines around a bar magnet.	☐	I can draw the fields around 2 interacting magnets.	☐
I can draw line graphs of data about electromagnets.	☐	I can explain how an electromagnet works and state why they may be preferred to a permanent magnet.	☐	I can explain how a relay switch works.	☐
I know the unit for measuring frequency of waves	☐	I can compare waves of different frequencies and amplitudes using wave diagrams.	☐	I can explain why sound can't be heard in space.	☐
I know that waves can be transverse or longitudinal	☐	I can compare how transverse and longitudinal waves transfer energy and identify examples of each	☐	I can explain superposition of waves.	☐
Name the parts of the ear.	☐	I can explain how a sound is transferred through the inner ear to the brain.	☐	I can explain how a microphone is similar to the ear.	☐
I know the range of hearing for humans.	☐	I can compare the hearing range of humans to other species.	☐	I can explain how ultrasound is used in baby scans.	☐
I can construct ray diagrams.	☐	I can explain how light travels to the eye and how different parts of the eye enable us to see.	☐	I can say how vision defects can be corrected.	☐
I know what reflection is.	☐	I can compare reflection and refraction.	☐	I can explain how glasses correct short and long sightedness.	☐
I can recall the colours in white light.	☐	I can explain how the colours in white light can be separated and why we see objects as being different colours.	☐	I can explain how coloured filters transmit the colours of light.	☐

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