



Finham Park School



KS3 Biology Assessment Statements – Year 9 Biology

Working Towards		Working At		Greater Depth	
I understand levels of organization within an ecosystem.	<input type="checkbox"/>	I understand the importance of interactions between organisms in a community.	<input type="checkbox"/>	I know how organisms are interdependent and adapted to their environment.	<input type="checkbox"/>
I can identify species.	<input type="checkbox"/>	I can measure distribution, frequency and abundance of species within a habitat.	<input type="checkbox"/>	I can estimate population size from my sample data,	<input type="checkbox"/>
I know what is cycled in an ecosystem.	<input type="checkbox"/>	I know how materials cycle through abiotic and biotic components of ecosystems.	<input type="checkbox"/>	I understand the importance of decomposers in the cycling of materials.	<input type="checkbox"/>
I understand the importance of biodiversity.	<input type="checkbox"/>	I understand positive and negative human interactions with ecosystems.	<input type="checkbox"/>	I understand the impact of global warming and pollution due to an increasing population.	<input type="checkbox"/>
I know that cells are the basic structural unit of all organisms.	<input type="checkbox"/>	I know how adaptations of cells relate to their function.	<input type="checkbox"/>	I know the main subcellular structures of eukaryotic and prokaryotic cells.	<input type="checkbox"/>
I can use a microscope.	<input type="checkbox"/>	I can make a scientific drawing using a microscope.	<input type="checkbox"/>	I can calculate cell size using the IAM equation.	<input type="checkbox"/>
I can name ways that substances enter and leave cells.	<input type="checkbox"/>	I can investigate osmosis.	<input type="checkbox"/>	I understand the factors that affect the rate of transport across a membrane.	<input type="checkbox"/>
I know the key biological molecules.	<input type="checkbox"/>	I can test for different food groups.	<input type="checkbox"/>	I understand the biological need for the different food groups	<input type="checkbox"/>
I can name the where different parts of digestion occur.	<input type="checkbox"/>	I can explain how digestion by enzymes occurs.	<input type="checkbox"/>	I can investigate factors affecting the rate of enzymatic reactions.	<input type="checkbox"/>
I understand the role of blood.	<input type="checkbox"/>	I can describe how the heart works.	<input type="checkbox"/>	I can suggest ways to treat heart problems.	<input type="checkbox"/>
I know the difference between breathing and respiration.	<input type="checkbox"/>	I can describe the structure of the respiratory system.	<input type="checkbox"/>	I understand how the lungs are adapted for gas exchanges.	<input type="checkbox"/>
I know the role of the xylem and phloem in plant transport.	<input type="checkbox"/>	I can explain what the transpiration is.	<input type="checkbox"/>	I can explain how different factors affect the rate of transpiration.	<input type="checkbox"/>

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KS3 Chemistry Assessment Statements – Year 9 Chemistry

Working Towards		Working At		Greater Depth	
I can define element, mixtures and compounds.	<input type="checkbox"/>	I can explain that mass is conserved in a chemical reaction.	<input type="checkbox"/>	I can balance chemical equations.	<input type="checkbox"/>
I can describe how mixtures can be separated.	<input type="checkbox"/>	I can describe crystallisation and chromatography.	<input type="checkbox"/>	I can analyse chromatograms and calculate R _F values.	<input type="checkbox"/>
I can recall models of the atom	<input type="checkbox"/>	I can compare the plum pudding model of the atom with the nuclear model of the atom.	<input type="checkbox"/>	I can explain how the gold foil experiment was used to replace the plum pudding model of the atom.	<input type="checkbox"/>
I can recall the structure of an atom.	<input type="checkbox"/>	I can describe the properties of protons, electrons and neutrons.	<input type="checkbox"/>	I can explain why the atom is neutral and how ions are formed.	<input type="checkbox"/>
I can recall the electronic structure of the first 20 elements.	<input type="checkbox"/>	I can describe isotopes and how ions are formed.	<input type="checkbox"/>	I can calculate relative atomic mass and deduce the charges of ions.	<input type="checkbox"/>
I can recall the arrangement of the modern periodic table.	<input type="checkbox"/>	I can describe the principles underpinning the Mendeleev Periodic Table.	<input type="checkbox"/>	I can link the electronic structure of atoms to the periodic table.	<input type="checkbox"/>
I can recall the reactions of group 1 and group 7 elements.	<input type="checkbox"/>	I can use chemical observations to work out the order of reactivity of group 1 and 7 elements.	<input type="checkbox"/>	I can explain the order of reactivity of group 1 and group 7 elements using electronic structure.	<input type="checkbox"/>
I can name and recall the structure of hydrocarbons.	<input type="checkbox"/>	I can describe the processes of fractional distillation and cracking.	<input type="checkbox"/>	I can explain the importance of fractional distillation and cracking.	<input type="checkbox"/>
I can recall the name and composition of gases in the Earth's atmosphere.	<input type="checkbox"/>	I can describe how the Earth's early atmosphere has evolved over time.	<input type="checkbox"/>	I can explain why carbon dioxide and oxygen levels have changed over time.	<input type="checkbox"/>
I can recall the names of greenhouse gases and atmospheric pollutants.	<input type="checkbox"/>	I can describe the greenhouse effect and how atmospheric pollutants are formed.	<input type="checkbox"/>	I can explain the effect of greenhouse gases and atmospheric pollutants on global climate change.	<input type="checkbox"/>
I can recall the Earth's natural resources and how some of them are limited.	<input type="checkbox"/>	I can describe the treatment of ground water and sewage water.	<input type="checkbox"/>	I can explain how water is made safe to drink.	<input type="checkbox"/>
I can identify the stages in a life cycle assessment.	<input type="checkbox"/>	I can carry out a LCA.	<input type="checkbox"/>	I can explain efficacy of recycling and re-using resources.	<input type="checkbox"/>

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KS3 Physics Assessment Statements – Year 9 Physics

Working Towards		Working At		Greater Depth	
I understand that energy is transferred when changes happen in a system.	<input type="checkbox"/>	I can explain energy changes in a system using the stores and pathways model.	<input type="checkbox"/>	I can calculate efficiency for different energy transfers.	<input type="checkbox"/>
I can compare the starting conditions of a system to the final conditions.	<input type="checkbox"/>	I can identify intermediate steps in more complex energy transfers in systems.	<input type="checkbox"/>	I can accurately describe energy transfers for complex systems.	<input type="checkbox"/>
I can identify renewable and non-renewable energy sources.	<input type="checkbox"/>	I can explain how renewable and non-renewable energy sources are used on earth.	<input type="checkbox"/>	I can describe energy changes when different energy sources are used.	<input type="checkbox"/>
I can describe changes of state as physical changes which are reversible.	<input type="checkbox"/>	I can calculate energy changes involved with heating and with changes of state.	<input type="checkbox"/>	I can explain how changes in temperature lead to a change on the pressure of a gas.	<input type="checkbox"/>
I can relate models of particle arrangement to the density of a substance.	<input type="checkbox"/>	I can calculate density.	<input type="checkbox"/>	I can successfully find the density of a range of objects by investigation.	<input type="checkbox"/>
I can observe waves in different situations and describe the superposition of waves.	<input type="checkbox"/>	I know the mechanisms by which sound is transferred and can describe how sounds are made.	<input type="checkbox"/>	I can recall the auditory range of humans and give some uses of ultrasound.	<input type="checkbox"/>
I can identify the features of a wave and say that waves transfer energy but not matter.	<input type="checkbox"/>	I can compare transverse and longitudinal waves.	<input type="checkbox"/>	I can calculate the wave speed, wavelength and frequency using an equation.	<input type="checkbox"/>
I know the speed of electromagnetic waves in a vacuum.	<input type="checkbox"/>	I can explain absorption, reflection and refraction effects and link refraction to the speed of light.	<input type="checkbox"/>	I can explain how electromagnetic waves are produced and detected.	<input type="checkbox"/>
I know some uses of the types of wave in the EM Spectrum.	<input type="checkbox"/>	I can compare the uses and dangers of types of waves in the EM Spectrum including to body tissues.	<input type="checkbox"/>	I can say how the waves of the EM Spectrum are used in medical applications.	<input type="checkbox"/>

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