

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	Unit: Reproduction
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <p>HUMAN REPRODUCTION</p> <p>1 - Label all the main structures in the male and female reproductive systems, and match them to their functions.</p> <p>2 - describe the changes that occur during puberty. Describe the stages of the menstrual cycle</p> <p>3 - state the name of the male and female sex cells and match their adaptations to their functions. Describe how fertilisation takes place</p> <p>4 - describe the processes of gestation and birth. Plot data and make calculations relating to the growth of a fetus.</p> <p>REPRODUCTION IN FLOWERING PLANTS</p> <p>5 - identify the main structures in a flower</p> <p>6 - name 2 ways that pollination can take place between flowers. Put the processes of fertilisation and seed formation in flowering plants in order.</p> <p>7 - name different methods of seed dispersal</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>HUMAN REPRODUCTION</p> <p>1 - Label all the main structures in the male and female reproductive systems, and explain their functions.</p> <p>2 - describe and explain the changes that occur during puberty. Explain the stages of the menstrual cycle and interpret data in relation to it.</p> <p>3 - state the name of the male and female sex cells and explain how they are adapted to their functions. Describe and explain how fertilisation takes place</p> <p>4 - describe the processes of gestation and birth. Plot data and make calculations (eg calculate percentage change) relating to the growth of a fetus.</p> <p>REPRODUCTION IN FLOWERING PLANTS</p> <p>5 - identify the main structures in a flower</p> <p>6 - explain differences in the way that pollination can take place between flowers. Describe the processes of fertilisation and seed formation in flowering plants.</p> <p>7 - describe and explain adaptations of seeds for seed dispersal</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>HUMAN REPRODUCTION</p> <p>1 - Label all the main structures in the male and female reproductive systems, and explain their functions.</p> <p>2 - describe and explain the changes that occur during puberty. Explain the stages of the menstrual cycle and interpret data in relation to it.</p> <p>3 - state the name of the male and female sex cells and explain how they are adapted to their functions. Describe and explain how fertilisation takes place</p> <p>4 - describe the processes of gestation and birth. Plot data and make calculations (eg calculate percentage change) relating to the growth of a fetus.</p> <p>REPRODUCTION IN FLOWERING PLANTS</p> <p>5 - identify the main structures in a flower</p> <p>6 - explain differences in the way that pollination can take place between flowers. Describe the processes of fertilisation and seed formation in flowering plants.</p> <p>7 - describe and explain adaptations of seeds for seed dispersal</p> <p>.</p> <p>.</p> <p>.</p>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	Unit: Periodic Table
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <p>1 - Understand the difference between elements, compounds and mixtures</p> <p>2 - Recall naes and chemical symbols for selected elements and compounds</p> <p>3 - understand the basic structure of the periodic table, limited to groups, periods, metals and non-metals</p> <p>4 - predicte properties of elements from their position in the periodic table</p> <p>5 - describe the properties and importance of alloys</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>1 - Understand the difference between elements, compounds and mixtures</p> <p>2 - Recall naes and chemical symbols for selected elements and compounds</p> <p>3 - understand the basic structure of the periodic table, limited to groups, periods, metals and non-metals</p> <p>4 - predicte properties of elements from their position in the periodic table</p> <p>5 - describe the properties and importance of alloys</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>1 - Understand the difference between elements, compounds and mixtures</p> <p>2 - Recall naes and chemical symbols for selected elements and compounds</p> <p>3 - understand the basic structure of the periodic table, limited to groups, periods, metals and non-metals</p> <p>4 - predicte properties of elements from their position in the periodic table</p> <p>5 - describe the properties and importance of alloys</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	Unit: Chemical Reactions
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <p>1 - understand that chemical reactions occur when atoms are rearranged.</p> <p>2 - represent chemical reactions using word equations.</p> <p>3 - describe some common chemical reactions (oxidation, thermal decomposition and combustion) in terms of their reactants and products and in terms of the energy changes that occur (in exothermic and endothermic reactions).</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>1 - understand that chemical reactions occur when atoms are rearranged.</p> <p>2 - represent chemical reactions using word equations and formula equations.</p> <p>3 - describe some common chemical reactions (oxidation, thermal decomposition and combustion) in terms of their reactants and products and in terms of the energy changes that occur (in exothermic and endothermic reactions).</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>	<p>Secure</p> <p>The student can:</p> <p>1 - understand that chemical reactions occur when atoms are rearranged.</p> <p>2 - represent chemical reactions using word equations and balanced formula equations.</p> <p>3 - explain some common chemical reactions (oxidation, thermal decomposition and combustion) in terms of their reactants and products and in terms of the energy changes that occur (in exothermic and endothermic reactions).</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	
Unit: Climate Change		Unit: Climate Change	
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: USE OF SCIENTIFIC TERMS some scientific terms have been used and spelled correctly CONTENT 1 - climate change is defined 2 - simple description of causes of climate change 3 - simple description of effects of climate change 4 - simple explanation of solutions to climate change ORGANISATION 1 - appropriate organisation 2 - single sentences are clear and logical using capital letters and full stops 3 - ideas may not be in the correct sequence	Secure The student can: USE OF SCIENTIFIC TERMS most scientific terms have been used and spelled correctly CONTENT 1 - climate change is defined 2 - clear description of causes of climate change 3 - clear description of effects of climate change 4 - scientific terms used confidently and correctly in explanation of solutions to climate change ORGANISATION 1 - ideas organised into well-developed linked paragraphs 2 - essentially correct sequence	Secure The student can: USE OF SCIENTIFIC TERMS full range of scientific terms have been used appropriately and spelled correctly CONTENT 1 - climate change is defined 2 - clear explanation of causes of climate change 3 - clear explanation of effects of climate change 4 - scientific terms used confidently and correctly in explanation of solutions to climate change, including the role of individuals and larger organisations. ORGANISATION 1 - use of paragraphing and correct punctuations to make complex sequences of events coherent and clear
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	
Unit: Motion & Pressure		Unit: Motion & Pressure	
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: Calculate the speed of an object, the distance an object travels, and the time of the journey (equations are given). Interpret a distance–time graph to describe a journey Identify situations where there is high or low pressure in solids Describe what affects pressure in fluids (gas and liquid). With regards to levers and moments - identify the pivot and forces. Describe what will take place in simple situations. Describe the skeletal system and its functions Describe the muscular system and its functions . . .	Secure The student can: Calculate the speed of an object, the distance an object travels, and the time of the journey Interpret a distance–time graph to describe a journey Identify situations where there is high or low pressure in solids and calculate the pressure over an area Describe what affects pressure in fluids (gas and liquid). With regards to levers and moments - identify the pivot and forces. Calculate the moment around a pivot using the equation (equation) Describe the skeletal system and its functions Describe the muscular system and its functions . . .	Secure The student can: Calculate the speed of an object, the distance an object travels, and the time of the journey Interpret a distance–time graph to describe a journey Identify situations where there is high or low pressure in solids and calculate the pressure over an area Explain what affects pressure in fluids (gas and liquid). With regards to levers and moments - identify the pivot and forces. Calculate the moment around a pivot using the equation (equation) Describe the skeletal system and its functions Describe the muscular system and its functions Explain how the skeletal and muscular systems interact. . . .
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	
Unit: Acids & Alkalis		Unit: Acids & Alkalis	
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: Identify common acids from a list Describe how to be safe using acids and alkalis Use pH scale to work out whether a substance is an acid/alkali/neutral. Describe the results of using litmus paper Identify substances which will neutralise and acid or alkali Identify from a list the name of products which will be produced from neutralisation reactions . . .	Secure The student can: name common acids. Identify substances that acids react with Describe how to be safe using acids and alkalis. Describe the difference between a dilute acid and a concentrated acid Describe what an indicator is. Use pH scale and results using different indicators to work out whether a substance is an acid/alkali/neutral. Identify substances which will neutralise an acid or alkali. Describe neutralisation and how pH changes in neutralisation reactions Complete word equations for the reaction of an acid with a metal hydroxide . . .	Secure The student can: name common acids and explain what all acids chemically have in common. Identify substances that acids react with Describe the differences in safety precautions between using a dilute acid and a concentrated acid. Compare dilute and concentrated acids and alkalis in terms of the particles in their Describe what an indicator is. Use pH scale and results using different indicators to work out whether a substance is an acid/alkali/neutral. Compare different indicators Identify substances which will neutralise an acid or alkali. Describe neutralisation and how pH changes in neutralisation reactions. Interpret data regarding neutralisation reactions Write word equations for the reaction of an acid with a metal hydroxide . . .
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps

Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	
		Unit: Electricity & magnetism	
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Identify complete circuits & select conductors and insulators Describe how magnets will behave in simple situations Describe an investigation to test the strength of an electromagnet Draw circuit digrams for circuits in series and parallel label the structure of an atoms in terms of protons, neutrons and electron. Recall the charge of each particle. Describe how static electricity builds up (in terms of charged particles) and some of its 	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Explain why electricity cannot flow in incomplete circuits. Identify conductors and Describe how magnets will behave in simple situations Describe what an electromagnet is and an investigation to test the strength of an electromagnet. Draw circuit digrams for circuits in series and parallel. Calculate current, potential difference and resistance using the equations learnt. draw the structure of an atoms in terms of protons, neutrons and electron. Recall the charge of each particle. Explain static electricity (in terms of the build up of charged particles) and some of its dangers 	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Explain why electricity cannot flow in incomplete circuits. Identify conductors and Describe how magnets will behave in simple situations Describe what an electromagnet is and an investigation to test the strength of an electromagnet. Draw circuit digrams for circuits in series and parallel. Calculate current, potential difference and resistance using the equations learnt. draw the structure of an atoms in terms of protons, neutrons and electron. Recall the charge of each particle. Explain static electricity (in terms of the build up of charged particles) and some of its dangers
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 8	
		Unit: Ecology	
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Describe a particular habitat using scientific words Analyse simple data in relation to sampling in an ecosystem Draw a food chain and name levels. Analyse a simple food web Describe variation within a population Describe adaptations of a particular organism Identify areas of high and low biodiversity. Explain what endangered means. Name a method of conservation 	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Describe a particular habitat using scientific words Analyse simple data in relation to sampling in an ecosystem Draw a food chain and name levels. Analyse a food web including making predictions about how changes may affect it. Describe variation within a population. Identify characteristics that are continuous or discontinuous. Describe and explain adaptations of a particular organism Define the term biodiversity and identify areas of high and low biodiversity. Explain what endangered means. Explain what 'endangered' means and describe data in relation to this. Describe a method of conservation 	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> Explain the difference between a habitat and an ecosystem Describe and explain how numbers of plants can be sampled in an ecosystem. Analyse complex data in relation to sampling. Draw a food chain and name levels. Analyse a food web, explaining transfer of energy. Use food web to make predictions about changes in population. Describe variation within a population. Identify characteristics that are continuous or discontinuous and explain the difference between them. Describe and explain adaptations of a particular organism Define the term biodiversity and identify areas of high and low biodiversity. Explain what endangered means. Explain what 'endangered' means and describe data in relation to this. Describe a method of conservationRelate conservation to biodiversity levels
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps