

Key Stage 3 Subject Assessment Grid			
Subject: Science		Year: 7	
		Unit: Particles	
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: Draw a particle diagram for a solid, liquid and gas State some properties of solids, liquids and gases Identify changes of state from a diagram Recognise that substances change state at fixed temperatures Identify examples of diffusion and describe in simple terms what is taking place	Secure The student can: Draw a particle diagram for a solid, liquid and gas. Describe the movement of particles in a solid, liquid or gas Describe properties of solids, liquids and gases. Explain a property using the particle model Identify changes of state from a diagram. Use the particle model to describe changes of state Recognise that substances change state at fixed temperatures. State whether a substance is a solid, liquid or gas from its melting point and boiling point. Describe diffusion using the particle model.	Secure The student can: Draw a particle diagram for a solid, liquid and gas. Compare the movement of particles in a solid, liquid or gas Describe properties of solids, liquids and gases. Explain a property using the particle model Identify changes of state from a diagram. Use the particle model to explain changes of state Recognise that substances change state at fixed temperatures. State whether a substance is a solid, liquid or gas from its melting point and boiling point. Explain diffusion using the particle model.
	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: 7	
		Unit: Cells	
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: Label parts of a microscope and state what each part does Identify parts of plant and animal cells Identify different specialised cells state the levels of organisation within an organism Describe the structure and function of the lungs Describe the process of ventilation Describe the effects of smoking, asthma and exercise on the lungs Describe gas exchange in the leaf & the stomata . . .	Secure The student can: Label parts of a microscope and state what each part does. Describe how to make an onion slide. Identify different parts of plant and an animal cell. Describe the roles of different parts of cells do. Identify different specialised cells and describe how they are adapted for their role. State and explain the levels of organisation in a multicellular organism Describe the structure and function of the lungs and explain their adaptations Explain the process of ventilation Explain the effects of smoking, asthma and exercise on the lungs Explain how gas exchange occurs in the stomata of the leaf . . .	Secure The student can: Label parts of a microscope. Describe how to make an onion slide and explain view under a light microscope. Explain powers of different lenses. Identify different parts of plant and an animal cell and describe their functions. Compare animal and plant cells. Identify different specialised cells and explain how they are adapted for their role Apply the levels organisation to different organ systems. Explain how organs can be grouped into organ systems. Describe the structure and function of the lungs and explain their adaptations Explain the process of ventilation in terms of gas exchange Explain the effects of smoking, asthma and exercise on the lungs Explain how gas exchange occurs in the stomata of the leaf . . .
	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: 7	
		Unit:	
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: Name different types of force. Draw the direction of a force acting on an object. Identify situations where forces on an object are balanced or unbalanced. Identify air resistance or friction acting on an object. Identify gravity acting on an object. Calculate the weight of an object, when you know its mass (equation given) Plot data relating to the extension of a spring (axes will be provided). Describe results of this experiment in simple terms.	Secure The student can: Name different types of force. Define what a force is. Draw the direction of a force acting on an object. Identify situations where forces on an object are balanced or unbalanced. Calculate the resultant force on an object. Describe the effects of air resistance and friction Identify gravity acting on an object. Calculate weight of an object, when you know its mass (equation not given) Plot data relating to the extension of a spring (axes will be provided). Draw a line of best fit and identify any outliers. Describe results of this experiment.	Secure The student can: Name different types of force. Define what a force is, giving units and explain how forces can be measured. Draw the direction of a force acting on an object. Identify situations where forces on an object are balanced or unbalanced. Calculate the resultant force on an object. Describe the effect on an object of balanced and unbalanced forces. Explain how air resistance and friction occur and how these forces can be reduced, and when they may be useful. Identify gravity acting on an object. Calculate weight, mass and gravitational field strength (equation not provided). Plot data relating to the extension of a spring (axes will not be provided). Draw a line of best fit and identify any outliers. Describe results of this experiment and make predictions using results.
	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: 7	
		Unit: Diet & Digestion Literacy Task	
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: CONTENT: Some scientific words used with correct spellings Description of some parts of the digestive system Simple explanation of their function ORNGAISATION: generally appropriate single sentences are clear and logical, using capital letters and full stops. Some correct sequencing of ideas	Secure The student can: CONTENT: most scientific terms used appropriately with correct spellings Clear description of each part of the digestive system Use scientific terms confidently and correctly to explain what part the organ plays in digestion ORGANISATION: Ideas organised into well-developed, linked paragraphs Essentially in the correct sequence. .	Secure The student can: CONTENT: full range of scientific terms used appropriately and spelled correctly Clear description of each part of the digestive system, including specialised features relevant to digestion Use scientific terms correctly to give detailed description of specialised structures and explain how they are adapted to their function. ORGANISATION: Use of paragraphing and correct punctuation 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

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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: 7	Unit: Mixtures
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
	Secure The student can: Identify a solvent and a solute in different situations. Give the name of a solution. Identify soluble and insoluble substances. Describe, in simple terms, how to carry out a simple investigation into solubility and interpret simple data in relation to it. Identify mixtures that can be separated by filtration. Label equipment needed for filtration. Name the process that obtains a solvent from a solution. Interpret the results of a simple chromatogram.	Secure The student can: Identify a solvent and a solute in different situations. Give the name of a solution. Explain why substances dissolve or don't dissolve. Describe what a saturated solution is. Describe and explain how to carry out a simple investigation into solubility. Analyse simple data in relation to solubility. Identify mixtures that can be separated by filtration. Label equipment needed for filtration and describe what happens in filtration. Identify mixtures that can be separated using distillation. Describe simply what happens in distillation. Describe how to carry out chromatography and interpret the results of a simple chromatogram.	Secure The student can: Identify a solvent and a solute in different situations. Give the name of a solution. Explain why substances dissolve or don't dissolve. Use particle model to describe what happens to a solute when it dissolves in a solution. Describe what a saturated solution is. Describe and explain how to carry out a simple investigation into solubility. Analyse complex data in relation to solubility. Identify mixtures that can be separated by filtration. Explain the process of filtration. Identify mixtures that can be separated using distillation. Explain what happens in distillation. Describe how to carry out chromatography, interpret the results of a simple chromatogram and explain them in terms of solubility.
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: 7	Unit: Energy
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
	Secure The student can: Identify different energy stores. State the law of energy conservation and carry out a simple calculation in relation to this. Name materials that are good conductors of heat and materials that are good insulators. Calculate the work done on an object (equation given). Identify energy sources as renewable or non-renewable. Given data, identify suitable places for different energy sources.	Secure The student can: Identify different stores and transfers of energy. State the law of energy conservation and carry out a calculation in relation to this. Name materials that are good conductors of heat and materials that are good insulators. Use data to identify the best conductor or insulator. Calculate the work done on an object (equation not given). Name energy sources that are renewable or non-renewable. Given data, identify suitable places for different energy sources and give reasons for decisions.	Secure The student can: Describe different energy transfers. State the law of energy conservation and carry out a calculation in relation to this. Identify useful energy output and wasted energy output from a given example. Name materials that are good conductors of heat and materials that are good insulators. Use data to identify the best conductor or insulator. Explain conduction in terms of the particle model. Calculate the work done on an object (equation not given). You must be able to convert units from "kilo" and "Mega". Name energy sources that are renewable or non-renewable and explain the difference between the two. Given data, identify suitable places for different energy sources and give reasons for decisions. Evaluate different energy sources.
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: 7	Unit: Sound & Light
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
	Secure The student can: Name luminous and non-luminous objects. Complete ray diagrams with straight lines / using an arrow to show direction. Describe how light is reflected and draw a simple ray diagram showing reflection Describe in basic terms how light changes direction. State simple features of sound waves Identify traces of waves that have a high or low pitch, or that are loud or quiet Name uses of ultrasound waves	Secure The student can: Describe the motion of light and explain how we see luminous and non-luminous objects. Complete ray diagrams with straight lines / using an arrow to show direction. Describe how light is reflected drawing a simple ray diagram. Identify angles of incidence and reflection on the diagram. Describe how light is refracted and gives a simple explanation as to why light is refracted. Describe simple features of sound waves i.e. Created by vibrations. Compare traces of waves that have a high or low pitch, or that are loud or quiet. Name and describe uses of ultrasound and describes ultrasound.	Secure The student can: Explain the motion of light and explain how we see luminous and non-luminous objects and complete diagrams to show how we see luminous and non-luminous objects. Explain how light is reflected drawing a simple ray diagram. Identify angles of incidence and reflection on the diagram and apply rule about these angles. Explain why light is refracted compares refraction from air-glass with glass-air. Explain simple features of sound waves i.e. created by vibrations or needs a medium to travel through. Compare traces of waves that have a high or low pitch, or that are loud or quiet and draw a trace of a wave. Explain ultrasound and its uses. Compare sound and light waves.
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:	Year: 7	Unit:
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
	Secure The student can:	Secure The student can:	Secure The student can:

