SCIENCE

Year 9 Assessment Grid

Scientific Attitudes

Emerging	Securing	Deepening	Mastery
○ With support I can identify a question to investigate and follow a simple practical plan to answer it	○ I can identify a question to investigate and follow a simple plan to answer it. With support I can suggest my own practical investigation.	○ I can identify a question to investigate and follow a plan to answer it. I can suggest my own practical investigation.	○ I can identify several questions to investigate and follow a plan to answer it. I can confidently suggest my own practical investigation, using existing knowledge to help me
○ I can answer questions which ask me to compare/ describe/ draw	○ I can answer questions which ask me to calculate/ compare and contrast/ estimate/ plot	○ I can answer questions which ask me to show/ analyse / justify / discuss	○ I can answer question which ask me to deduce/ devise/ evaluate/ create
○ I can use scientific observations to suggest answers	○ I use scientific observations to confidently answer questions	○ I use scientific observations and knowledge to confidently answer questions	○ I use scientific observations, knowledge and theories to confidently answer questions.
○ With support I can give a simple description, using details	○ I can describe my ideas using details	○ I can confidently describe my ideas using details to enhance them. With guidance I can make links between new knowledge and prior knowledge.	○ I consistently and confidently describe my ideas in detail, making links between new knowledge and prior knowledge.
○ I can use several scientific key terms	○ I can define and use several scientific key terms	○ I can consistently define and use several scientific key terms	○ I confidently use and define several scientific key terms
○ I occasionally need support to help with spelling key scientific words and can write in full sentences	○ I can confidently spell some scientific key words and always write in full sentences	○ I confidently spell a range of key scientific words, use correct punctuation, and use mostly correct grammar throughout	○ I confidently spell a range of key complicated scientific words, and use correct punctuation and grammar throughout
○ I can use scientific symbols and with support can use some conventions	○ I use scientific symbols and some conventions	○ I can use a range of scientific symbols and conventions	○ I can confidently use a large range of both scientific symbols and conventions
○ With support I can identify places where I have made a mistake/error	○ I can identify places where I have made a mistake and suggest an improvement for one of them. I occasionally act on feedback to improve	○ I can identify places where I have made a mistake and suggest an improvement for several of them. I often act on feedback to improve	○ I can identify places where I have made a mistake, suggest a reason for these errors, and suggest an improvement for several of them. I always act on feedback to improve.
○ I can state an example of a scientific process	○ I can describe more than 1 scientific process	○ I can explain at least 1 scientific process and describe a scientific phenomena	○ I can explain at least 1 scientific process and 1 scientific phenomena, using scientific reasoning

Experimental Skills and Investigations

Emerging	Securing	Deepening	Mastery
○ With support I can write a hypothesis and make a simple prediction	○ I can write a hypothesis and make a prediction	○ I can write a hypothesis and make a prediction, using some science to support it	○ I can independently write a hypothesis and make a prediction, using scientific ideas
○ I can list most of the equipment I need to use.	○ I can list all of the equipment I need to use and state the purpose of some of them	○ I can list all of the equipment I need to use and explain what they are used for	○ I can list all of the equipment I need to use and justify why I have chosen one piece of equipment over another
○ I can write a method with limited support that can be followed, even with some points missing or out of order.	○ I can write a method that can be followed by someone else and identify at least one measurement that needs to be made.	○ Independently I can write a repeatable step-by-step method. The dependant variable and independent variables will be identified.	○ Independently I can write a repeatable step-by-step method that will include how to measure the different quantities.
○ I can make visual observations and take some readings from simple equipment	I can write down both visual observations and readings from a range of equipment	○ I can record observations and results scientifically using a range of equipment to help me	○ I can record observations and results scientifically and accurately. using a range of equipment
○ I can draw results tables which are complete with headings.	○ I can draw results tables with are complete with headings and units	○ I can design my own results tables with clearly labelled headings including units	○ I can design my own results tables with clearly labelled headings including units including repeats
○ With support I can identify 1 control variable and use guidance to suggest a way to control it	○ I can identify more than 1 control variable and suggest a way to control one of them	○ I can identify a range of control variables and suggest ways to control them	○ I can identify a range of control variables, suggest ways to control them and suggest how one of them could affect results if **not** controlled
○ I can identify a potential hazard and state the risk	○ I can identify a potential hazard, state the risk and with support suggest a precaution	○ I can identify a potential hazard, state the risk and suggest a precaution	○ I can identify potential hazards, risks and suggest how to control them.

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Year 9 Assessment Grid

	Emerging	Securing	Deepening	Emerging
Analysis and Evaluation	○ Independently I can link the variables to identify the trend in my results and use data to support it	○ I can use experimental data to support my trend and explain it using relevant scientific knowledge.	○ I can use experimental data confidently to support my trend and explain it using relevant scientific knowledge.	○ I can use experimental data confidently to support my trend and explain it using relevant scientific knowledge.
	○ I can plot mostly accurate points on a graph and label axes with support	○ I can create a simple scale for a graph and plot points, with support	○ I can create a simple scale for a graph and accurately plot points	○ I can use more complicated scales to draw graphs, plotting accurately
	○ With support I can draw a mostly accurate straight line of best fit	○ I can independently draw an accurate straight line of best fit	○ I can independently draw either a straight or curved line of best fit	○ I can decide whether data should have a straight or curved line of best fit and draw accurately
	○ I can describe the differences between continuous and discontinuous data	○ With support I can suggest the appropriate type of graph for a set of data	○ I can suggest the appropriate type of graph for a set of data	○ I can explain which type of graph is best for a set of data
	○ I can write a conclusion and, with support, use data	○ I can write a conclusion using experimental data and compare to predictions	○ I can write a conclusion using experimental data and suggest improvements	○ I can write a conclusion using experimental data, suggest improvements, and suggest further extensions
	○ I can identify if my data is of good quality and, with support, give a reason for my answer	○ With support, I can use the terms accurate and precise to explain if my data is of good quality	○ I can independently use the terms accurate, precise, and repeatable to explain if my data is of good quality	○ I can use the terms accurate, precise, repeatability, and reproducibility to explain if my data is of good quality
	○ I can identify an anomalous (odd) result.	○ I can suggest why an anomalous result may have occurred.	○ With support, I can suggest an improvement which would reduce anomalies	○ With support I know how to deal with anomalous results when processing data

	Emerging	Securing	Deepening	Emerging
Measurement and Maths	○ I can take measurements using standard units using a range of equipment	○ I can take measurements using a range of scientific equipment, with some accuracy	○ I can take measurements using a range of scientific equipment, with some accuracy, and occasionally take repeat readings	○ I can take measurements using a range of scientific equipment, with accuracy and precision, and often take repeat readings
	○ I can use addition, subtraction, multiplication **and** division in simple calculations	○ I can calculate the mean average for a set of data with support	○ I can confidently calculate the mean average for a set of data	○ I can confidently calculate the mean average for a set of data and occasionally take anomalies into account
	○ I regularly use FIA and with support can use FIMA to show my workings	○ I regularly use FIMA to show my workings	○ I always use FIMA to show my workings	○ I always use FIMA to show my workings and can carry out multi-stage calculations
	○ With support I can round my answers using decimal places	○ I can round my answers using decimal places	○ I can round my answers using decimal places or significant figures	○ I can use information to correctly round my answers using decimal places or significant figures

Term	Mastery Pathway	Target
Autumn Term		
Spring Term		
Summer Term		