

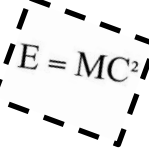




### KS3 Science Learning Plan

	TPS1	TPS2	TPS3	TPS4	TPS5	TPS6
 <p><b>Measurement skills</b></p>	<p>You can make simple measurements carefully and consistently.</p> <p>You can use measuring instruments correctly.</p>	<p>You can complete a results table to record all measurements observed in an investigation.</p> <p>You can justify why we take repeat measurements in an investigation.</p> <p>You can calculate the mean of repeated data.</p>	<p>You can tell if repeated measurements are close.</p> <p>You can identify and discard anomalous results before calculating the mean.</p> <p>You can explain why we calculate the mean of repeated data.</p>	<p>You can choose a suitable range for the independent variable in an investigation.</p> <p>You can identify the range of a set of data without anomalies.</p> <p>You can apply sampling techniques if appropriate.</p>	<p>You can check that a measuring instrument can measure the complete range of a variable.</p> <p>You can identify the range of a set of data with anomalies.</p> <p>You can check that the resolution of the equipment is suitable to detect measureable differences.</p>	<p>You can explain why having a large range or many readings leads to accurate data.</p> <p>You can describe the factors that influence the choice of range and interval for the variables.</p>
 <p><b>Experimental and Investigatory Skills</b></p>	<p>You understand that some variables have to be controlled.</p> <p>You can choose the correct equipment for a practical.</p> <p>You can write a basic method for an experiment.</p> <p>You can make a prediction for an investigation.</p>	<p>You can identify independent, dependent and control variables when given a method.</p> <p>You can write a method which will allow valid results to be collected.</p> <p>You can justify a prediction for an investigation.</p> <p>You can simply state the hazards in an experiment</p>	<p>You can identify independent and dependent variables in a method that you have written.</p> <p>You can identify the measurements that need to be made in an experiment &amp; link these to the equipment required.</p> <p>You can identify the main control variable in an experiment.</p>	<p>You can state clearly how you will measure the independent and dependent variables.</p> <p>You can identify significant control variables in an experiment.</p> <p>You can identify the significant hazards in an experiment and you can write a basic risk assessment.</p>	<p>You can explain how you will monitor the control variables.</p> <p>You can suggest an experiment to test a hypothesis.</p> <p>You can identify all significant hazards and you can state clearly how these will be managed.</p>	<p>You can explain how you will monitor the control variables, linking the equipment needed.</p> <p>You can state the hazards that are associated with risks you have identified and give precise details of how the risks can be controlled.</p> <p>You can write a hypothesis to test a research question.</p>
 <p><b>Maths Skills</b></p>	<p>You can complete simple calculations using equations and data provided.</p>	<p>You can complete calculations using equations provided, identifying data to be used from a table or piece of text.</p> <p>You can recall and use a limited range of units.</p>	<p>You can recall and use simple equations to complete calculations, identifying data to be used from a table or a piece of text.</p> <p>You can recall and use a wider range of units.</p>	<p>You can recall and use more complex equations to complete calculations.</p> <p>You can complete calculations by rearranging simple equations.</p> <p>You can identify data to be used in calculations from more complex tables or pieces of text.</p>	<p>You can complete calculations by recalling and rearranging more complex equations.</p> <p>You can identify simple inconsistencies in units and resolve them before completing calculations.</p> <p>You can interpret more complex texts to identify and combine data to be used in calculations.</p>	<p>You can identify and complete multi-step calculations by recalling and rearranging equations.</p> <p>You can choose appropriate data to use in calculations, ignoring irrelevant data.</p> <p>You can identify more subtle inconsistencies in units and resolve them before completing calculations.</p>
 <p><b>Analysis and Evaluation Skills</b></p>	<p>You can complete a bar chart by adding extra bars.</p> <p>You can identify ways in which the method was a fair test.</p> <p>Identify simple problems with the way the experiment is carried out.</p>	<p>You can draw a bar chart or scatter graph on pre-scaled axis and label the axis.</p> <p>You can draw conclusions from a bar chart or scatter graph.</p> <p>You can draw a straight line of best fit, ignoring anomalous results.</p>	<p>You can <b>select</b> and draw a bar chart or line graph, designing and labelling the axis.</p> <p>Explain whether a method is valid or not for testing a specific hypothesis.</p> <p>Evaluate the data to describe its repeatability.</p>	<p>You can select and draw an appropriate straight or curved line of best fit.</p> <p>You can extrapolate straight line graphs to predict data.</p> <p>You can interpret simple data in tables and graphs to decide whether it supports a hypothesis.</p> <p>Identify the limitations of an experiment design and if possible, suggest ways of reducing their impact.</p>	<p>You can design and draw more complex line graphs.</p> <p>You can interpret a curved line graph to suggest the relationship between the dependent variable and the independent variable.</p> <p>Evaluate the evidence to explain whether or not it is reproducible.</p> <p>Identify possible causes of error in the data.</p>	<p>You can interpret more complex data in tables and graphs to decide whether it supports a hypothesis.</p> <p>You can justify whether the data provides enough evidence to support the hypothesis.</p> <p>You can link data from several sources to draw a conclusion.</p> <p>Identify the type of error as measurement, systematic, random or zero error.</p>

 <p><b>Communication Collaboration and Language in Science</b></p>	<p>You know some scientific facts.</p> <p>You attempt to write in sentences.</p> <p>You write some specialist terms accurately enough that they can be recognised.</p>	<p>You know some basic information and show a simple understanding of it.</p> <p>Your sentences show some structure, but are not linked in an organised way.</p> <p>You spell some specialist terms reasonably accurately but do not show a clear understanding of them.</p>	<p>You know some accurate information without showing that you clearly understand it.</p> <p>Your writing shows some structure and you attempt to use specialist terms, but not always accurately.</p> <p>Your spelling, punctuation and grammar is reasonable but there are still several errors.</p>	<p>You can show clear understanding of the main science concepts.</p> <p>Your writing shows some detail and structure and uses some specialist terms, but not always accurately.</p> <p>Your spelling, punctuation and grammar is reasonable but there are still some errors.</p>	<p>You can use accurate information in the right context.</p> <p>Your writing is logically structured and uses a range of specialist terms appropriately.</p> <p>Your spelling, punctuation and grammar are very good.</p>	<p>You show detailed understanding, supported by relevant evidence and examples.</p> <p>Your writing is logically structured and uses a wide range of specialist terms accurately.</p> <p>Your spelling, punctuation and grammar are almost faultless.</p>
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