

Planning		Obtaining evidence		Analysing & considering evidence		Evaluating	
P.2a	outline a simple procedure	O.2a	collect some evidence using a simple and safe procedure	A.2a	state simply what is shown by the evidence	E.2a	make a relevant comment about the procedure used or the evidence obtained
P.4a	plan to collect evidence which will be valid	O.4a	collect appropriate evidence which is adequate for the activity	A.4a	use simple diagrams, charts or graphs as a basis for explaining the evidence	E.4a	comment on the quality of the evidence, identifying any anomalies
P.4b	plan the use of suitable equipment or sources of evidence	O.4b	record the evidence	A.4b	identify trends and patterns in the evidence	E.4b	comment on the suitability of the procedure and, where appropriate, suggest changes to improve it
P.6a	use scientific knowledge and understanding to plan and communicate a procedure, to identify key factors to vary, control or take into account, and to make a prediction where appropriate	O.6a	collect sufficient systematic and accurate evidence and repeat or check where appropriate	A.6a	construct and use suitable diagrams, charts, graphs (with lines of best fit, where appropriate), or use numerical methods, to process evidence for a conclusion	E.6a	consider critically the reliability of the evidence and whether it is sufficient to support the conclusion, accounting for any anomalies
P.6b	decide a suitable extent and range of evidence to be collected	O.6b	record clearly and accurately the evidence collected	A.6b	draw a conclusion consistent with the evidence and explain it using scientific knowledge and understanding	E.6b	describe, in detail, further work to provide additional relevant evidence
P.8a	use detailed scientific knowledge and understanding to plan and communicate an appropriate strategy, taking into account the need to produce precise and reliable evidence, and to justify a prediction, when one has been made	O.8a	use a procedure with precision and skill to obtain and record an appropriate range of reliable evidence	A.8a	use detailed scientific knowledge and understanding to explain a valid conclusion drawn from processed evidence	<p align="center">GCSE Science (Exams from 2003) Sc1 Scientific Enquiry Investigative skills assessment www.8886.co.uk</p>	
P.8b	use relevant information from preliminary work, where appropriate, to inform the plan			A.8b	explain the extent to which the conclusion supports the prediction, if one has been made		

a use scientific knowledge and understanding to turn ideas into a form that can be investigated, and to plan an appropriate strategy
b decide whether to use evidence from first-hand experience or secondary sources
c carry out preliminary work and make predictions, where appropriate
d consider key factors that need to be taken into account when collecting evidence, and how evidence can be collected in contexts in which the variables cannot readily be controlled
e decide the extent and range of data to be collected, and the techniques, equipment and materials to use.

f use a wide range of equipment and materials appropriately, and manage their working environment to ensure the safety of themselves and others
g make observations and measurements, including the use of ICT for datalogging to a degree of precision appropriate to the context
h make sufficient observations and measurements to reduce error and obtain reliable evidence
i judge the level of uncertainty in observations and measurements
j represent and communicate qualitative and quantitative data using diagrams, tables, charts, graphs and ICT.

k use diagrams, tables, charts and graphs, and identify and explain patterns or relationships in data
l present the results of calculations to an appropriate degree of accuracy
m use observations, measurements or other data to draw conclusions
n explain to what extent these conclusions support any predictions made, and enable further predictions to be made
o use scientific knowledge and understanding to explain and interpret observations, measurements or other data, and conclusions.

p consider anomalous data, giving reasons for rejecting or accepting them, and consider the reliability of data in terms of uncertainty of measurements and observations
q consider whether the evidence collected is sufficient to support any conclusions or interpretations made
r suggest improvements to the methods used
s suggest further investigations.

[30Jan02]