

Sample Performance Descriptors for the Scientific Poster School Assessed Task

Performance Descriptors

Notes:

- descriptors in the table below may be modified, but modifications must relate to Units 1-4 key science skills and the scientific investigation template included in the cross-study specifications in the study design extra rows and/or cells may be added to the table below, but new content must relate to Units 1-4 key science skills and the scientific investigation template included in the cross-study specifications
- rows and/or cells in the table below may be deleted or combined, for example, rows in the table below may be combined so that multiple performance descriptors may contribute to a mark of 5, 4, 3, 2 or 1
- not all assessment criteria necessarily need to have five grade descriptors

Assessment Criteria	Very High (5 marks)	High (4 marks)	Medium (3 marks)	Low (2 marks)	Very Low (1 mark)
Title	Original, clear and concise question posed that is investigable and draws on study design key knowledge and skills	Clear and concise question posed that is investigable and draws on study design key knowledge and skills	Clear and concise question posed that draws on study design key knowledge and skills	Relevant question posed that draws on study design key knowledge and skills	Relevant question posed, with some guidance, that draws on study design key knowledge and skills
Introduction	Insightful understanding of the context and purpose of the investigation including a clear and relevant aim	Well-developed understanding of the context and purpose of the investigation including a relevant aim	Sound understanding of the context and purpose of the investigation including a relevant aim	Some understanding of the context or purpose of the investigation including an aim	Limited understanding of the context or purpose of the investigation
	Accurate identification and explanation of relevant background concepts	Accurate identification and some explanation of relevant background concepts	Clear identification and mostly accurate discussion of relevant background concepts	Some identification and limited discussion of relevant background concepts	Some identification of relevant background concepts
	Independent formulation and justification of an appropriate hypothesis and/or prediction	Independent formulation of an appropriate hypothesis and/or prediction	Mostly independent formulation of an appropriate hypothesis and/or prediction	Formulation, with limited guidance, of an appropriate hypothesis and/or prediction	Formulation, with guidance, of an appropriate hypothesis and/or prediction
	Correct identification and operationalisation of dependent and independent variables, and identification of controlled variables	Correct identification of dependent, independent and controlled variables	Correct identification of dependent and independent variables, and most controlled variables	Correct identification of dependent and independent variables	Correct identification of some variables
Methodology	Independently designs and conducts investigations selecting appropriate equipment and materials, demonstrating a systematic and comprehensive approach	Independently conducts investigations using appropriate equipment and materials, demonstrating a systematic approach	Conducts investigations under some direction, using appropriate equipment and materials and demonstrating a systematic approach	Conducts investigations mostly under direction, generally using appropriate equipment and materials and demonstrating a systematic approach	Conducts investigations under direction, using mostly appropriate equipment and materials and demonstrating a limited systematic approach
	Complex understanding of the theory underpinning the experimental methods used in the investigation	Thorough understanding of the theory underpinning the experimental methods used in the investigation	Satisfactory understanding of the theory underpinning the experimental methods used in the investigation	Some relevant discussion of the theory underpinning the experimental methods used in the investigation	Some reference to the theory underpinning the experimental methods used in the investigation
	Complex understanding of the aims and methodology of the practical investigation	Thorough understanding of the aims and methodology of the practical investigation	Satisfactory understanding of the aims and methodology of the practical investigation	Some relevant comment on the aims and methodology of the practical investigation	Some description of the aims and methodology of the practical investigation
	Thorough explanation of investigation risks and demonstrated independent and responsible application of safe and ethical work practices in	Explanation of investigation risks and demonstrated application of safe and ethical work practices in undertaking and reporting investigations	Discussion of investigation risks and demonstrated application of given safe and ethical work practices in undertaking and reporting investigations	Identification of investigation risks and demonstrated application, under some direction, of given safe and ethical work practices in	Identification of some investigation risks and demonstrated application, under direction, of given safe and ethical work practices in

	undertaking and reporting investigations	Collection of data which is mostly relevant to the question under investigation	Collection of data which is mostly relevant to the question under investigation	undertaking and reporting investigations	undertaking and reporting investigations
Results	Systematic collection of data which is relevant to the question under investigation	Clear, accurate and detailed records of investigation data	Collection of data which is mostly relevant to the question under investigation	Collection of some data which is mostly relevant to the question under investigation	Collection of limited data which has some relevance to the question under investigation
	Clear, accurate and detailed records of investigation data	Clear and accurate records of investigation data	Clear and accurate records of most investigation data	Clear records of some investigation data	Limited records of investigation data
	Appropriate and correct presentation of all investigation data to illustrate trends, patterns and/or scientific relationships	Appropriate presentation of all investigation data to illustrate major trends, patterns and/or scientific relationships	Appropriate presentation of most investigation data to illustrate a specific trend, pattern and/or scientific relationship	Appropriate presentation of some investigation data to illustrate a trend or pattern	Limited and sometimes inappropriate presentation of investigation data
Discussion	Comprehensive explanation of how accuracy, precision, reliability, validity, uncertainty and errors relate to collected data	Detailed explanation of how accuracy, precision, reliability, validity, uncertainty and errors relate to collected data	Satisfactory discussion of how accuracy, precision, reliability, validity, uncertainty and errors relate to collected data	Some discussion of how accuracy, precision, reliability, validity, uncertainty and errors relate to collected data	Limited discussion of how accuracy, precision, reliability, validity, uncertainty and errors relate to collected data
	Comprehensive and accurate analysis and explanation of investigation data	Accurate analysis and explanation of investigation data	Satisfactory analysis and discussion of most investigation data	Some analysis and discussion of investigation data	Limited analysis of some investigation data
	Comprehensive discussion of sources of error and uncertainty and limitations of data, including practical suggestions for improvements to experimental design and possible further investigations	Thorough discussion of sources of error and uncertainty and limitations of data, including suggestions for improvements to experimental design and possible further investigations	Satisfactory discussion of sources of error and uncertainty and limitations of data, including some suggestions for improvements to experimental design	Some discussion of sources of error and uncertainty and limitations of data, including some suggestions for improvements to experimental design	Limited identification of sources of error and uncertainty and limitations of data
Conclusion	Comprehensive evaluation of the procedures of the practical investigation	Well-developed evaluation of the procedures of the practical investigation	Identification and some evaluation of the procedures of the practical investigation	Identification and some discussion of the procedures of the practical investigation	Limited discussion of the procedures of the practical investigation
	Comprehensive and accurate explanation of the link between investigation findings and relevant scientific concepts	Accurate explanation of the link between investigation findings and relevant scientific concepts	Satisfactory explanation of the link between investigation findings and relevant scientific concepts	Some explanation of the link between investigation findings and relevant scientific concepts	Limited explanation of the link between investigation findings and relevant scientific concepts
	Comprehensive and accurate use of scientific language and conventions	Detailed and accurate use of scientific language and conventions	Mostly accurate use of scientific language and conventions	Some use of accurate scientific language and conventions	Limited use of correct scientific language and conventions
References and acknowledgments	Communication of a valid conclusion that relates collected data to the hypothesis and/or prediction and that provides a justified response to the investigation question	Communication of a valid conclusion that relates some collected data to the hypothesis and/or prediction and that provides a reasoned response to the investigation question	Communication of a conclusion that refers to the hypothesis and/or aim and/or prediction and provides a reasoned response to the investigation question	Communication of a conclusion that provides a reasoned response to the investigation question	Communication of a conclusion that provides a response to the investigation question
	Relevant, correct and consistent use of referencing and acknowledgment conventions, including logbook authentication references	Mostly relevant, correct and consistent use of referencing and acknowledgment conventions, including logbook authentication references	Satisfactory use of referencing and acknowledgment conventions, including logbook authentication references	Some use of referencing and acknowledgment conventions, including logbook authentication references	Limited use of referencing and acknowledgment conventions, including logbook authentication references