

SECONDARY SCIENCE

PORTFOLIO ENTRY 3: SCIENCE INVESTIGATION AND INQUIRY

DRAFT EVALUATION GUIDE

Key Criterion for Entry 3

Certification level: The entry provides clear evidence that the teacher has engaged students purposefully in a collaborative science investigation that has deepened their knowledge and understanding of science and developed their ability to apply scientific skills of inquiry.

The entry show how the teacher has set long- and short-term learning goals for students referenced to the Australian Curriculum: Science, how he or she has established and managed collaborative learning activities, and how he or she enabled students to make progress in developing identified skills of science investigation and inquiry in meaningful contexts.

This entry focuses mainly on Standards 1 to 4 in the APST:

1. Knowledge of students and how they learn
2. Know of content and how to teach it
3. Plan for and implement effective teaching and learning
4. Create and maintain supportive and safe learning environments

However, the entry will also provide evidence in relation to Standards 5 and 6.

5. Assess, provide feedback and report on student learning
6. Engage in professional learning

How will the entry be scored?

There are three stages in the scoring process. Stages 1 and 2 engage the assessors in analytic scoring to inform Stage 3, which engages them in holistic scoring.

Stage 1: Identify and record the evidence: In Stage 1 assessors read the whole entry carefully noting on an Assessment Record Form (ARF) what evidence they see relevant to each criterion and where they see it in the entry.

Stage 2 Evaluate the evidence for each Section: In Stage 2 assessors return to each Section in the ARF and make a judgement about the extent to which the evidence in that section is clear and convincing on a 4-point scale. (4 = to a major extent, 3 = to an acceptable extent, 2 = to a limited extent, 1 = little or no evidence.)

Stage 3: Overall judgement: In Stage 3 assessors step back and make a judgment about the portfolio entry as a whole in relation to the key criterion for that entry,

looking for consistency and clear links between its Sections. The overall judgment is expressed as a score on the four point scale.

This assessment process reflects the fact that teaching in practice is necessarily a complex process, interweaving many attributes and skills. Ultimately, the focus of a performance assessment is the overall performance itself, not its component parts

Stage 1: Identify and record the evidence (Assessment Record Form)

(Note: Section 1 is not assessed)	NOTE AND RECORD EVIDENCE INDICATING THAT:	(Notes made here should summarise what the evidence is, not make judgments)	Evaluation (1 to 4 scale)
Planning	1. The teacher has designed a purposeful and coherent teaching and learning plan to engage students in a collaborative science investigation and to apply scientific skills of inquiry..		
	2. The teacher's plan integrates a variety of assessment strategies to identify students' gains in scientific literacy and inquiry skills.		
	3. The teacher knows his or her students' needs and capabilities well and uses this knowledge to set worthwhile goals for student learning.		
	4. The teacher has a strong knowledge and understanding of science and scientific inquiry.		
Implementation and analysis	5. The teacher has created a learning environment that has enabled students to participate collaboratively in planning and conducting their investigations.		
	6. Students play an active role in identifying and posing questions for their investigations.		
	7. Students are clear about the nature and purpose of their investigations.		
	8. The teacher has created a learning environment characterised by high expectations and skilful questioning that challenges student thinking, makes links to students' prior knowledge and experience, and guides discussion?		
	9. The teacher has created a secure learning environment in which there is a high level of respectful teacher-student and student-student interactions.		
	10. The teacher employs a variety of informal assessment strategies in a timely way to identify and respond to factors that affect how students'		

	participate in discussion, and provides constructive feedback to guide learning and subsequent teaching		
	11. Students are developing their skills in scientific investigation and inquiry.		
	12. The students have processed, analysed and interpreted evidence as part of their investigations.		
	13. The teacher gives useful feedback to students about their investigations.		
	14. The students have completed and reflected on their investigations.		
	15. The students have communicated their findings clearly.		
Reflection and evaluation	16. The teacher has analysed his or her practice and its impact clearly and accurately,		
	17. The teacher has evaluated and reflected insightfully on their teaching and identified changes they might make in future teaching of inquiry skills.		

Stage 2: *Evaluate the evidence for each Section*

Return to each Section in the ARF and make a judgement about the extent to which the evidence in that section is clear and convincing on a 4-point scale. (4 = to a major extent, 3 = to an acceptable extent, 2 = to a limited extent, 1 = little or no evidence.)

Stage 3: Overall judgement

Step back and review the portfolio entry as a whole in relation to the key criterion for that entry, looking for coherence, consistency, and clear links between its Sections.

	Choose the level of performance
<p>More than meets the highly accomplished standard</p> <p>The entry provides <i>clear, consistent and convincing evidence</i> that the teacher has engaged students purposefully in a collaborative science investigation that has deepened their knowledge and understanding of science and developed their ability to apply scientific skills of inquiry.</p>	

Meets the highly accomplished standard The entry provides <i>clear evidence</i> that the teacher has engaged students purposefully in a collaborative science investigation that has deepened their knowledge and understanding of science and developed their ability to apply scientific skills of inquiry.	
Meets some elements of the highly accomplished standard The entry provides <i>limited evidence</i> that the teacher has engaged students purposefully in a collaborative science investigation that has deepened their knowledge and understanding of science and developed their ability to apply scientific skills of inquiry..	
Does not yet meet the highly accomplished standard The entry provides <i>little or no evidence</i> that the teacher has engaged students purposefully in a collaborative science investigation that has deepened their knowledge and understanding of science and developed their ability to apply scientific skills of inquiry.	