# **Appendix 1**

# Integrated mathematics and science lesson plan template

**Contextual information**

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| --- | --- |
| Lesson number  |  |
| Rationale for this lesson  |  |
| Mathematics and science learning intentions for this lesson: I want students to … |  |
| Curriculum links: |  |
| Mathematics focus:Explain the ‘mathematics’ understanding (big ideas) and/or skills (Include key vocab):Common misconceptions: |  |
| Science focus:Explain the ‘science’ understanding and/or skills (Include key vocab):Detail any alternate conceptions: |   |
| Assessment practices:Explain the data that will be collected (what will students be doing? how will the teacher be monitoring learning?) | (include ‘I can’ statements e.g., Students are learning about percentages when they can:) |

**Lesson Details**

|  |  |  |
| --- | --- | --- |
| Launch (introduction) | Details (to be completed) | Key questions / prompts (to be completed) |
| * Experience/context to engage learners with the ideas in the lesson and elicit prior knowledge
* Looking back to last time
 | Engagement description: | Questions to stimulate thinking and engagement: |
| Explore (body) |  |  |
| * Outline of the task/s
* Activities in lesson that will aim to engage student interest and allow for students to explore and play with ideas
* Students to explain their thinking
* Assessment practice to gather data
 | Task description:Observe how students are … (e.g. recoding/ representing their thinking)Use enabling and extending prompts Assessment practice: (what will students be producing to demonstrate their thinking / explanations?)Anticipated student difficulties or challenges | Questions to stimulate thinking: (i.e. what will you ask to get them talking and explaining their understanding?)*Enabling prompts* (Mathematics and Science):*Extending prompts* (Mathematics and Science): |
| Summarise (conclusion) |  |  |
| * Key Mathematics ideas to consider
* Key science ideas to consider
 | Reflective prompt (related to math and science ideas/ skills) | Key questions: |

Lesson 2 will look back to lesson 1 and re-tune students. Lesson 2 will focus on further explanation and elaboration of ideas – either more complex (building on lesson 1 and pushing thinking further) or to apply ideas in a different context (i.e. elaborate form 5E model).

Lesson 3 will elaborate further, building on ideas from lessons 1 and 2. Lesson 3 may also have more elements of evaluation, i.e. greater emphasis on summative assessment.