



Assessment task

Year level	7
Learning area	Science
Sub-strand	<p><<Teacher to select>></p> <ul style="list-style-type: none"> ○ Biological Sciences ○ Chemical Sciences ○ Physical Sciences ○ Earth and Space Sciences
Title of task	<<Teacher to specify>>

Task details

Description of task	Students are required to plan an investigation, specify independent, dependent and controlled variables, and write a question or problem that can be investigated. Students are required to apply scientific understanding when making a prediction, communicate ways in which they may collect and represent data, and science knowledge.
Type of assessment	Summative
Purpose of assessment	This task may be used at the end of a unit of work to assess science understanding and inquiry skills
Assessment strategy	Short answers
Evidence to be collected	Completed task
Suggested time	2 x 50 minutes

Content description

Content from the Western Australian Curriculum	<p>Science understanding</p> <p><<Insert here>></p> <p>Science as a Human Endeavour</p> <p>People use science understanding and skills in their occupations and these have influenced the development of practices in areas of human activity</p> <p>Science inquiry skills</p> <p>Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge</p> <p>Collaboratively and individually plan and conduct a range of investigation types, including fieldwork and experiments, ensuring safety and ethical guidelines are followed</p> <p>Measure and control variables, select equipment appropriate to the task and collect data with accuracy</p> <p>Construct and use a range of representations, including graphs, keys and models to represent and analyse patterns or relationships in data using digital technologies as appropriate</p> <p>Communicate ideas, findings and evidence based solutions to problems using scientific language, and representations, using digital technologies as appropriate</p>
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Task preparation

Prior learning

Students are familiar with the year level inquiry skills and have instigated and developed their own investigations on numerous occasions. The relevant science understanding has been explicitly taught to students in meaningful and relevant contexts.

Assessment task

Assessment conditions

Written task, completed individually at the end of the unit of work

Resources

Investigation template, provided

Instruction for teacher

1. The investigation planner is suitable for each of the science sub-strands.
2. The investigation is an in class summative piece, completed independently by students.
3. Teachers may provide clarification if students are unfamiliar with the template or template wording.
4. Teachers must consider the marking key if individual student guidance and support is required. This must be reflected in the marking to ensure comparability and fairness.
5. The planned investigations are not required to be executed.
6. It is anticipated that students have engaged in practical investigations in the chosen sub-strand. It is encouraged that students develop variations to those investigations completed in the classroom. Introducing and testing new variables encourages students to apply science understanding and demonstrate science literacy.
7. The Authority's website and link below may further support teachers in their work.
<https://k10outline.scsa.wa.edu.au/home/assessment/assessment-activities/year7>

Student Booklet - Science

Investigation title	
Student name	
School	
Year level	7
Date	

Task title: _____

Question 1

Write a question or problem which can be investigated

Question 2

State the variables for this experiment

Independent Variable What will I change?	Dependent Variable What will I measure?	Controlled Variables What will I keep the same?

Question 3

List the equipment required for the investigation

Question 4

Make a prediction and explain why you think this will happen

Question 5

Draw a labelled diagram of the equipment set-up



Question 6

Write down a method to conduct the investigation

Question 7

Design a table for recording the investigation results. Label all relevant columns

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Question 8

People use science to make decisions in the world. How could the results from the investigation be used to make decisions?

Marking key

Description	Marks
Question 1	
Writes a question or problem that clearly and correctly relates the dependent variable and the independent variable, and that is feasible and accurate in application.	3
Writes a question or problem that demonstrates some relationship between variables.	2
With guidance, writes an investigable question that may demonstrate a relationship between variables.	1
Subtotal	3
Question 2	
Identifies correctly, the independent variable, the dependent variable and the controlled variables.	3
Identifies most of the variables correctly.	2
Lists some variables that are relevant to the investigation.	1
Subtotal	3
Question 3	
Lists correctly, all of the equipment required to conduct the investigation.	3
Lists most of the equipment required to conduct the investigation.	2
Lists some equipment required to conduct the investigation.	1
Subtotal	3
Question 4	
Writes a reasonable prediction with a correct relationships between the dependent variable and the independent variable. Applies science understanding to explain the prediction.	3-4
Writes a prediction that includes the dependent and independent variable. Applies some science understanding to explain the prediction.	0-2
Subtotal	4
Question 5	
Draws a diagram that is clearly labelled and correct.	3
Draws a diagram that lacks some detail.	2
Draws a simple diagram.	1
Subtotal	3
Question 6	
Describes method in clear, logical steps. Identifies how variables will be controlled, changed and measured.	5-6
Describes method in logical steps. Identifies variables to be controlled, changed and measured.	2-4
Describes how investigation is to be conducted.	0-2
Subtotal	6

Description	Marks
Question 7	
Designs a table to record relevant information with relevant headings and units of measurement.	3
Designs a table to record relevant information with relevant headings.	2
Uses a simple table to collect data (data may be irrelevant to the prediction).	1
Subtotal	3
Question 8	
Relates investigation results to a specific problem and explains its implications.	3
Relates investigation to a specific situation in society.	2
Generally relates investigation to a situation in society.	1
Subtotal	3
Total	28