Year 2 Assessment Rubrics

PrimaryConnections® Linking science with literacy

Year 2 Achievement Standard

By the end of Year 2, students describe changes to objects, materials and living things. They identify that certain materials and resources have different uses and describe examples of where science is used in people's daily lives.

Students pose questions about their experiences and predict outcomes of investigations. They use informal measurements to make and compare observations. They follow instructions to record and represent their observations and communicate their ideas to others.

Organisers	CONTENT DESCRIPTIONS	ACHIEVEMENT STANDARD	EVIDENCE	LEVEL OF ACHIEVEMENT		
				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE UNDERSTANDING						
Biological sciences	Living things grow, change and have offspring similar to themselves (ACSSU030)	Describes changes to living things	*Watch it grow!* 'Lots of labels' (Resource sheet 8)	• Suggests the life stages of an animal	• Describes the life stages of an animal	• Has a detailed understanding of the life stages of an animal

AC The Achievement standard and Content descriptions are sourced from the Australian Curriculum.

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				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE UNDERSTANDING						
Chemical sciences	Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)	Identifies that certain materials have different uses	*All mixed up* 'Mixed up' (Resource sheet 11)	• Lists different mixtures from everyday life • Suggests ways that mixtures can be separated	• Describes what a mixture is • Identifies the ways that mixtures can be separated • Identifies the ways mixtures are used	• Applies an understanding of why things are considered to be mixtures or not • Explains how and why mixtures can be separated • Describes in detail how mixtures are used in everyday life
Earth and space sciences	Earth's resources, including water, are used in a variety of ways (ACSSU032)	Identifies that certain resources have different uses	*Water works* 'Wonderful water' (Resource sheet 1)	• Lists how they use water in everyday life • Identifies obvious sources of water in their local environment • Suggests ways to use water responsibly	• Describes ways people use water • Identifies the source of their water and how it is transported • Identifies ways to use water responsibly	• Explains ways that people use water • Has a basic understanding of the water cycle and how water is transported • Explains the importance of using water responsibly

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SCIENCE UNDERSTANDING						
Physical sciences	A push or a pull affects how an object moves or changes shape (ACSSU033)	Describes changes to objects	*Push-pull* 'Push and pull pictures' (Resource sheet 1)	• Describes non-scientific ideas about push and pull forces	• Identifies and describes the effects of push and pull forces in different situations • Explains that air and water push against objects • Explains that gravity pulls objects to the ground	• Demonstrates a detailed understanding of push and pull forces including the pull of gravity

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SCIENCE AS A HUMAN ENDEAVOUR						
Nature and development of science	Science involves asking questions about, and describing changes in, objects and events (ACSHE034)	Poses questions about their experiences	• *Watch it grow!* • *All mixed up* • *Water works* • *Push-pull*	Asks questions about objects and events	Poses questions about their experiences	Discusses, describes and asks questions about, and changes in, objects and events
Use and influence of science	People use science in their daily lives, including when caring for their environment and living things (ACSHE035)	Describes examples of where science is used in people's daily lives	• *Watch it grow!* • *All mixed up* • *Water works* • *Push-pull*	Makes simple observations about where science is used in people's daily lives	Describes examples of where science is used in people's daily lives	Shows a detailed understanding about where science is used in people's daily lives

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				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE INQUIRY SKILLS						
Questioning and predicting	Respond to and pose questions, and make predictions about familiar objects and events (ACSIS037)	Poses questions about their experiences and predict outcomes of investigations	*Elaborate* phase in: • *All mixed up* • *Push-pull*	Responds to questions about their experiences and predicts outcomes of investigations	Poses questions about their experiences and predict outcomes of investigations	Explains ideas to support their predictions about the outcome of investigations

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SCIENCE INQUIRY SKILLS						
Planning and conducting	Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (ACSIS038)	Poses questions about their experiences and predict outcomes of investigations	*Elaborate* phase in: • *All mixed up* • *Push-pull*	Follows procedures in guided investigations	Poses questions about their experiences and predict outcomes of investigations	Participates with understanding in different types of guided investigations to explore and answer questions
	Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS039)	Uses informal measurements to make observations	*Elaborate* phase in: • *All mixed up* • *Push-pull*	Requires help to use informal measurements	Uses informal measurements to make observations	Independently uses informal measurements in the collection and recording of observations

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				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE INQUIRY SKILLS						
Processing and analysing data and information	Use a range of methods to sort information, including drawings and provided tables (ACSIS040)	Follows instructions to record and represent their observations	*Elaborate* phase in: • *All mixed up* • *Water works* • *Push-pull*	Requires help to record and represent observations	Follows instructions to record and represent their observations	Independently records and represent observations
	Through discussion, compare observations with predictions (ACSIS214)	Compares observations	*Elaborate* phase in: • *Watch it grow!* • *All mixed up* • *Push-pull*	With support, compares observations and makes predictions	Compares observations	Compares observations with predictions and explains ideas

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SCIENCE INQUIRY SKILLS						
Evaluating	Compare observations with those of others (ACSIS041)	Compares observations	*Elaborate* phase in: • *Watch it grow!* • *All mixed up* • *Push-pull*	With support, compares their observations with others	Compares observations	Compares and explains their observations with those of others
Communicating	Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS042)	Communicates their ideas to others	*Elaborate* phase in: • *Watch it grow!* • *All mixed up* • *Water works* • *Push-pull*	With support, communicates their ideas to others	Communicates their ideas to others	Communicates their ideas to others in a variety of ways

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GLOSSARY

Describe	Give an account of characteristics or features.
Identify	Establish or indicate who or what someone or something is.
Investigate	Plan, collect and interpret data/information and draw conclusions about.
Pose	Put forward for consideration.
Compare	Estimate, measure or note how things are similar or dissimilar.
Record	To mark in a form that can be understood by others and revisited.
Represent	Use words, images, symbols or signs to convey meaning.

Acknowledgements
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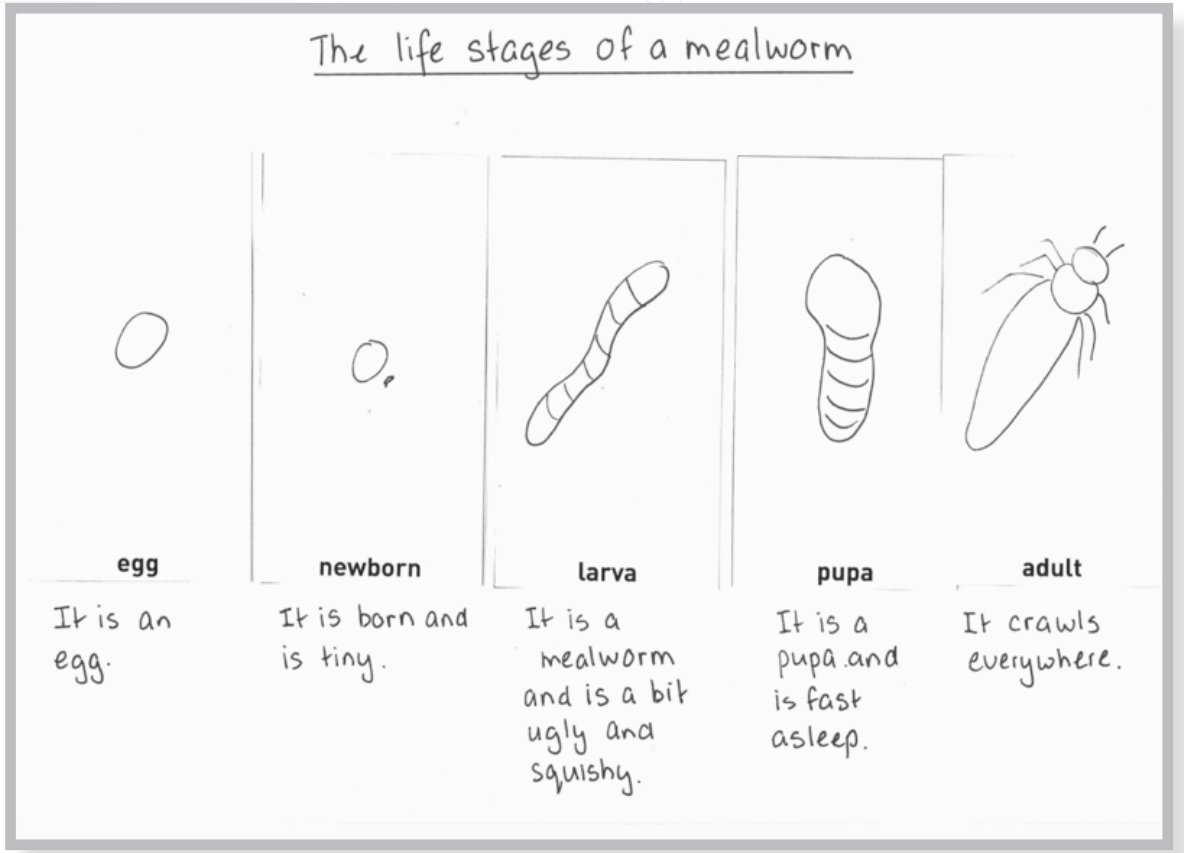
Disclaimer
The views expressed herein do not necessarily represent the views of the Australian Government.

Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Understanding

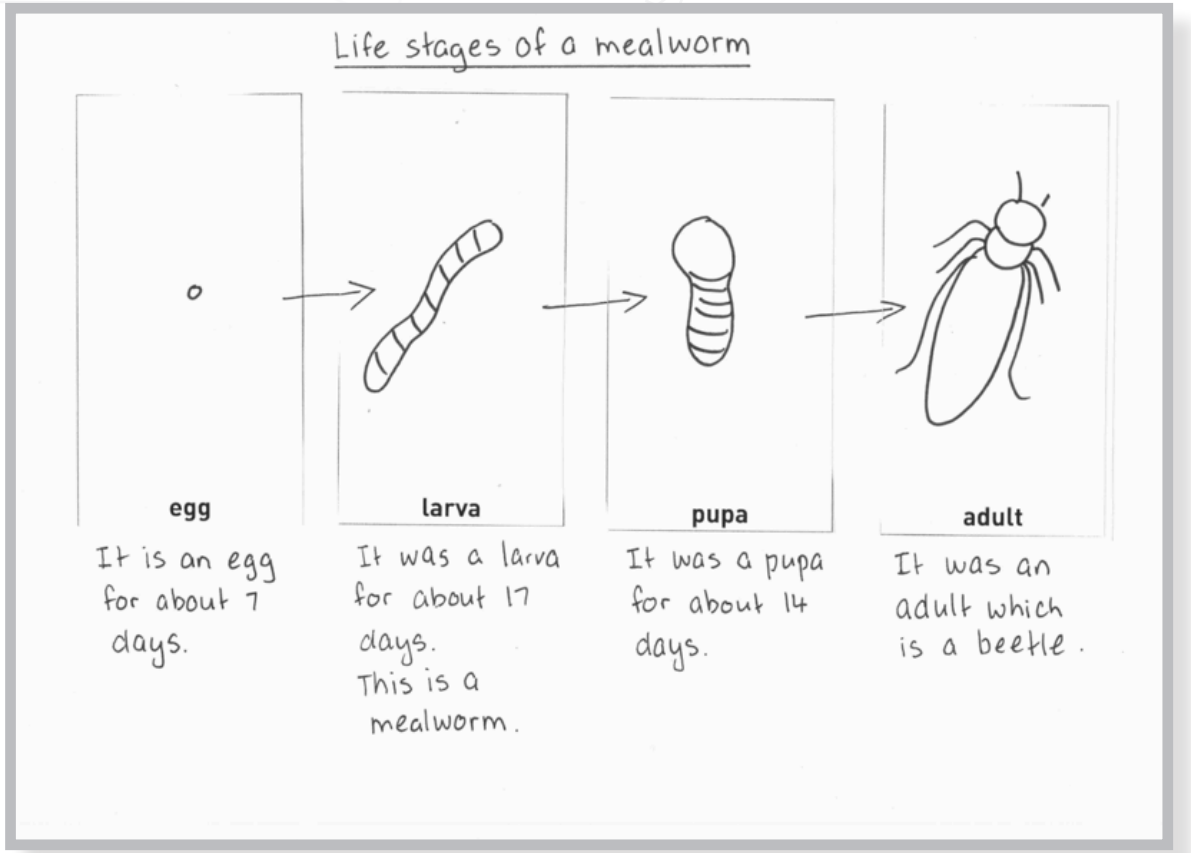
Below Achievement Standard



Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Understanding

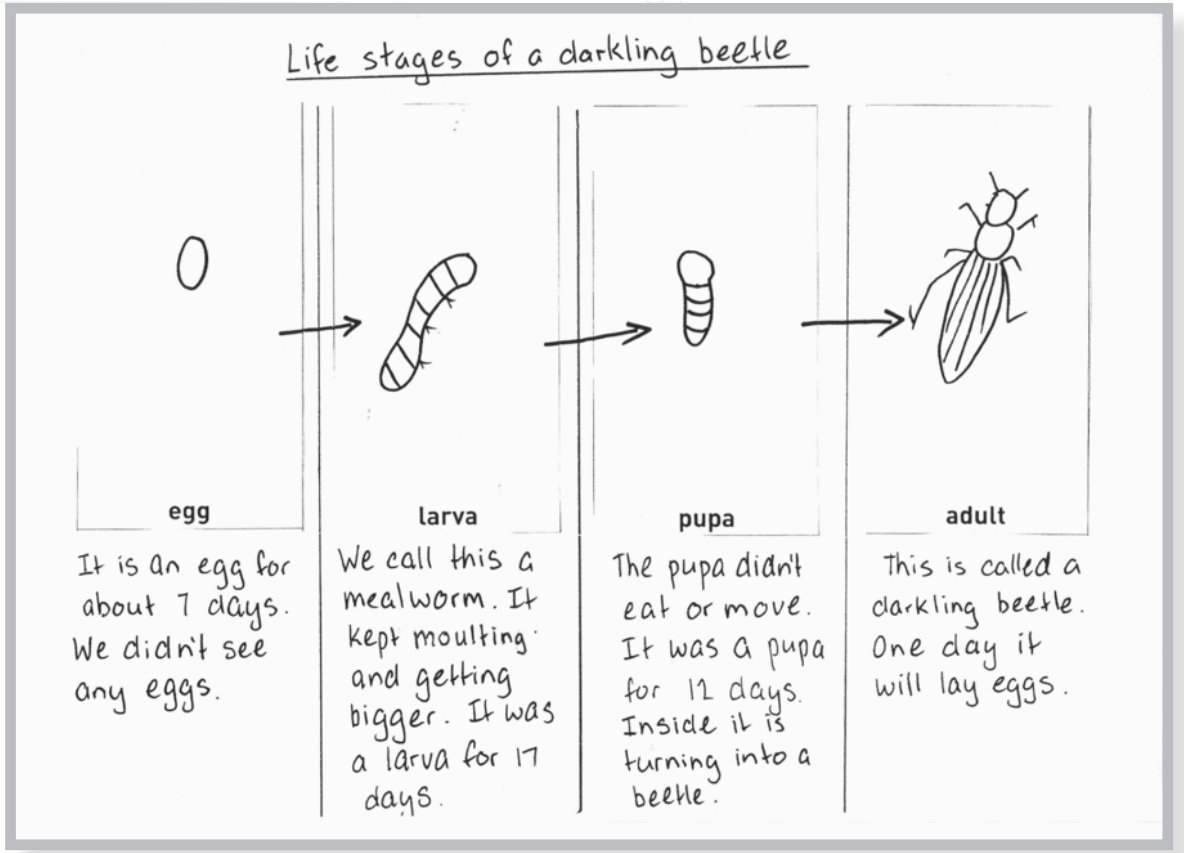
At Achievement Standard



Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Understanding

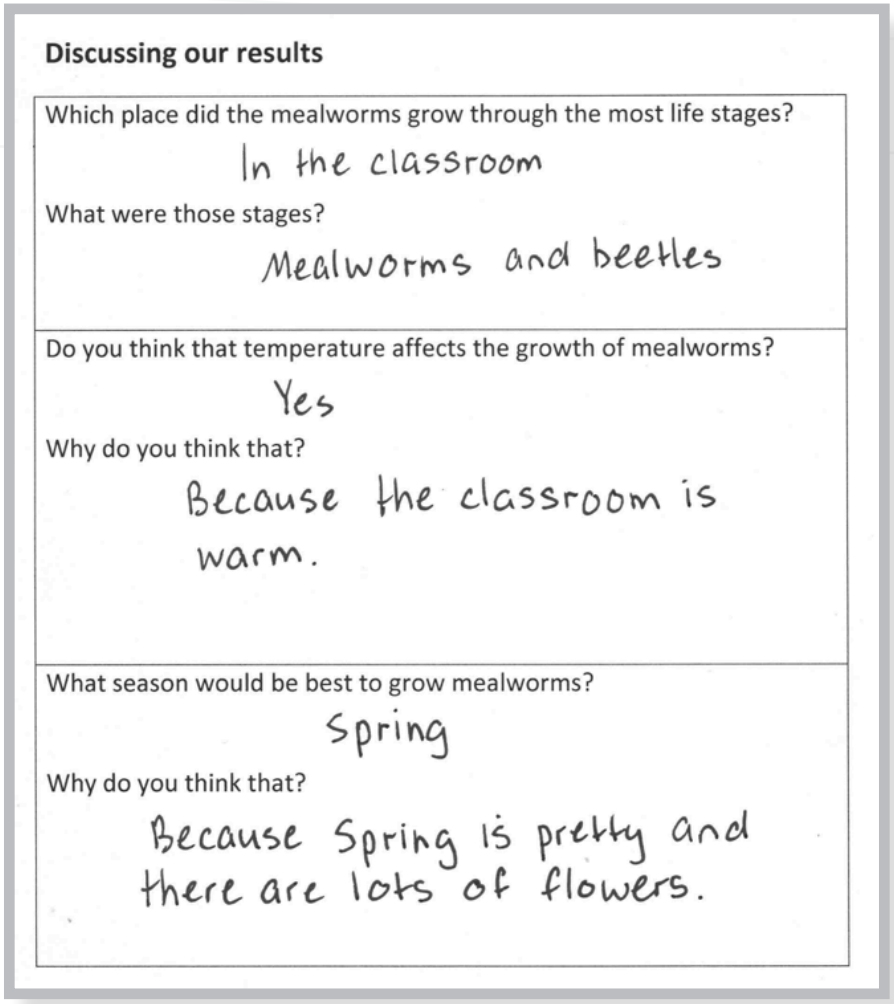
Above Achievement Standard



Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Inquiry Skills

Below Achievement Standard



Discussing our results

Which place did the mealworms grow through the most life stages?

In the classroom

What were those stages?

Mealworms and beetles

Do you think that temperature affects the growth of mealworms?

Yes

Why do you think that?

Because the classroom is warm.

What season would be best to grow mealworms?

Spring

Why do you think that?

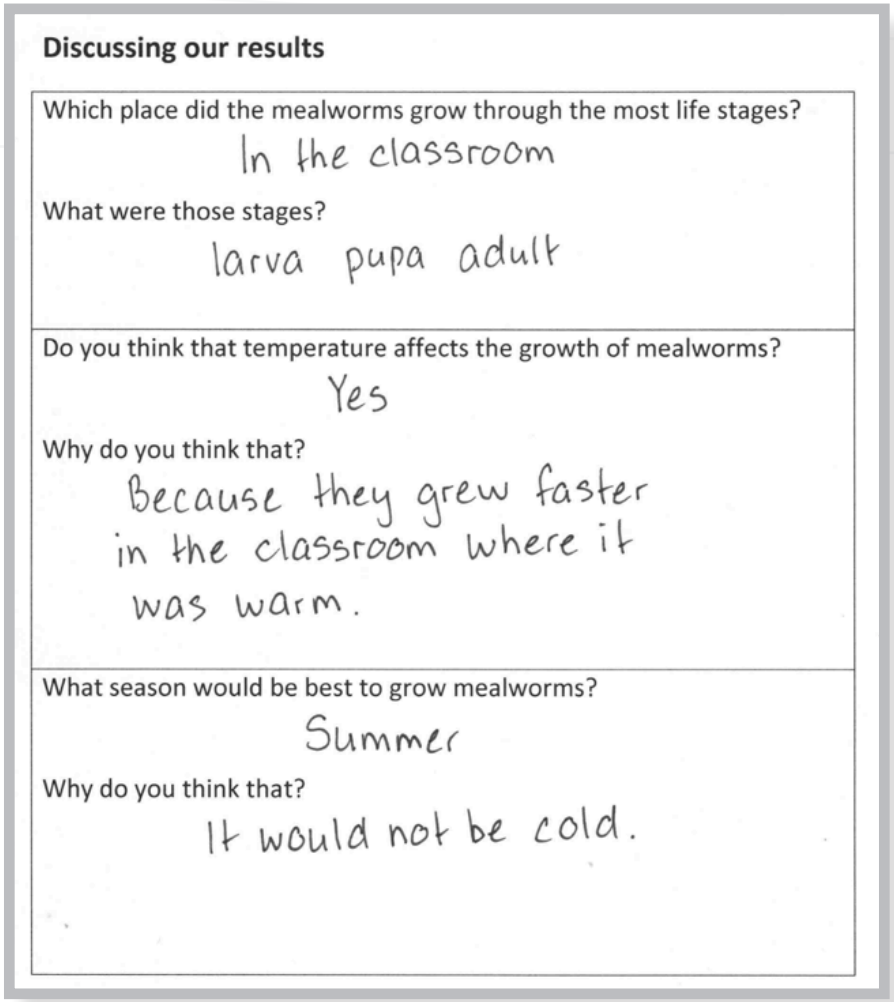
Because Spring is pretty and there are lots of flowers.

Processing and analysing data and information
Evaluating
Communicating

Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Inquiry Skills

At Achievement Standard



Discussing our results

Which place did the mealworms grow through the most life stages?

In the classroom

What were those stages?

larva pupa adult

Do you think that temperature affects the growth of mealworms?

Yes

Why do you think that?

Because they grew faster in the classroom where it was warm.

What season would be best to grow mealworms?

Summer

Why do you think that?

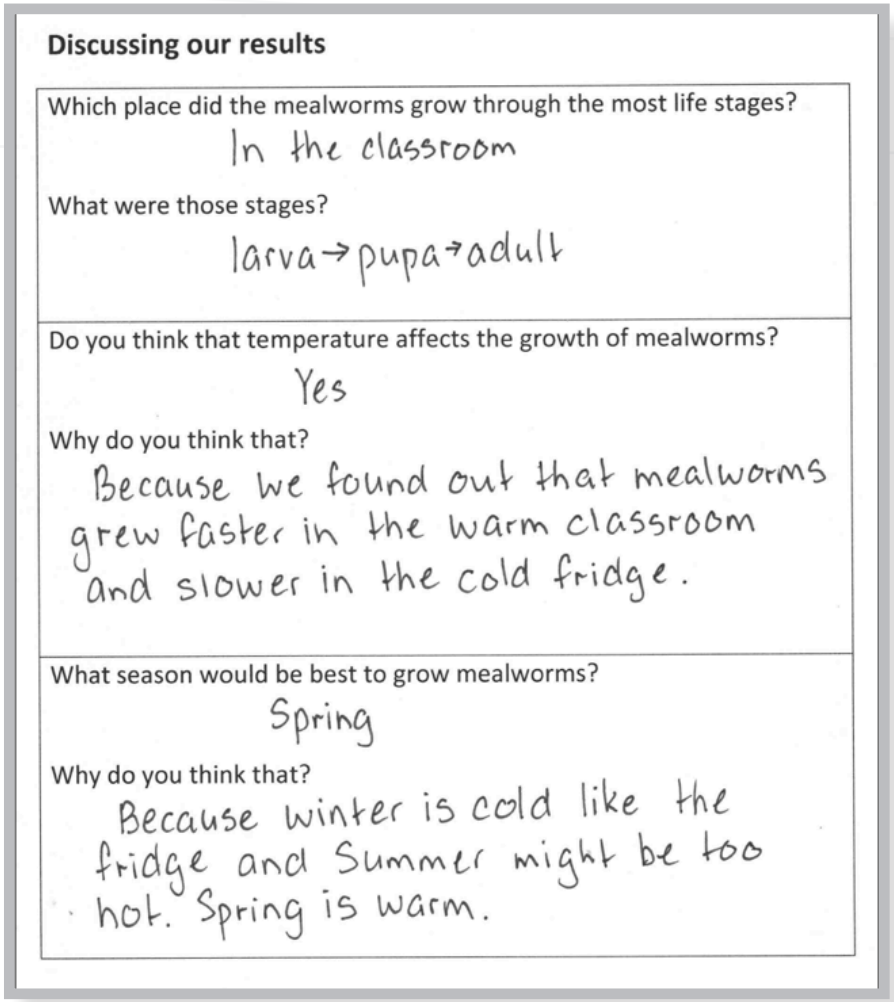
It would not be cold.

Processing and analysing data and information
Evaluating
Communicating

Year 2 **Work samples**

Watch it grow!
Summative Assessment of Science Inquiry Skills

Above Achievement Standard



Discussing our results

Which place did the mealworms grow through the most life stages?

In the classroom

What were those stages?

larva → pupa → adult

Do you think that temperature affects the growth of mealworms?

Yes

Why do you think that?

Because we found out that mealworms grew faster in the warm classroom and slower in the cold fridge.

What season would be best to grow mealworms?

Spring

Why do you think that?

Because winter is cold like the fridge and Summer might be too hot. Spring is warm.

Processing and analysing data and information
Evaluating
Communicating

Student Self-Assessment

Watch it grow! **Year 2 Biological sciences**

PrimaryConnections® Linking science with literacy

Name: _____ **Date:** _____

Strand	What I can do	I need help to do this	I can do this	I can do this very well
Science Understanding	I can describe the life stages of an animal			
Science as a Human Endeavour	I can ask questions about things around me			
	I can say where people use science in their lives			
Science Inquiry Skills	I can predict what might happen in an investigation			
	I can measure things in different ways			
	I can draw or use tables to show what I have observed			
	I can compare my observations with others			

Achievement Standard Class Checklist

Watch it grow! **Year 2 Biological sciences**

(This checklist is designed to be used in conjunction with the Assessment Rubric for the *Watch it grow!* unit)

PrimaryConnections® Linking science with literacy

Date: _____

	Science Understanding	**Science as a Human Endeavour**		**Science Inquiry Skills**				
	Describes changes to living things	Poses questions about their experiences	Describes examples of where science is used in people's daily lives	Poses questions about their experiences and predict outcomes of investigations	Uses informal measurements to make observations	Follows instructions to record and represent their observations	Compares observations	Communicates their ideas to others
Example: Student A	AAS	AS	AS	AS	AS	BAS	AS	BAS

BAS – Below Achievement Standard This indicates that the student has a limited understanding of the concept and/or skill
AS – At Achievement Standard This indicates that the student has a good understanding of the concept and/or skill
AAS – Above Achievement Standard This indicates that the student has a detailed understanding of the concept and/or skill

Achievement Standard Class Checklist

Watch it grow! **Year 2 Biological sciences**

(This checklist is designed to be used in conjunction with the Assessment Rubric for the *Watch it grow!* unit)

PrimaryConnections® Linking science with literacy

Date: _____

	Science Understanding	**Science as a Human Endeavour**		**Science Inquiry Skills**				
	Describes changes to living things	Poses questions about their experiences	Describes examples of where science is used in people's daily lives	Poses questions about their experiences and predict outcomes of investigations	Uses informal measurements to make observations	Follows instructions to record and represent their observations	Compares observations	Communicates their ideas to others
Example: Student A	AAS	AS	AS	AS	AS	BAS	AS	BAS

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