Bend it! Stretch it! Assessment Rubrics

PrimaryConnections® Linking science with literacy

Year 1 Achievement Standard

By the end of Year 1, students describe objects and events **that they encounter in their everyday lives, and the effects of interacting with materials and objects.** They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.

Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others.

Note: The sections relevant to *Bend it! Stretch it!* are bolded above. The full rubrics for all year levels are available on the Primary**Connections** website.

Organisers	CONTENT DESCRIPTIONS	ACHIEVEMENT STANDARD	EVIDENCE	LEVEL OF ACHIEVEMENT		
				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE UNDERSTANDING						
Chemical sciences	Everyday materials can be physically changed in a variety of ways (ACSSU018)	Describes the effects of interacting with materials and objects	• *Bend it! Stretch it!* Annotated drawing	• Suggests physical changes that can be made to materials and objects	• Describes physical changes that can be made to materials and objects	• Explains physical changes that can be made to materials and objects
SCIENCE AS A HUMAN ENDEAVOUR						
Nature and development of science	Science involves asking questions about, and describing changes in, objects and events (ACSHE021)	Describes changes to things in their local environment	• *Bend it! Stretch it!*	• Asks questions about their local environment	• Describes changes to things in their local environment	• Discusses, describes and asks questions about changes in their environment

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 AS A HUMAN ENDEAVOUR						
Use and influence of science	People use science in their daily lives, including when caring for their environment and living things (ACSHE022)	Suggests how science helps people care for environments	• *Bend it! Stretch it!*	• Makes simple observations about how people care for environments	• Suggests how science helps people care for environments	• Describes ways in which science helps people care for environments
SCIENCE INQUIRY SKILLS						
Questioning and predicting	Respond to and pose questions, and make predictions about familiar objects and events (ACSIS024)	Makes predictions	• *Elaborate* phase in: *Bend it! Stretch it!*	• Responds to questions about familiar objects and events	• Makes predictions	• Demonstrates a detailed understanding of making predictions and observations about familiar objects and events

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				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
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 (ACSIS025)	Investigates everyday phenomena	• *Elaborate* phase in: *Bend it! Stretch it!*	• Follows procedures in guided investigations	• Investigates everyday phenomena	• 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 (ACSIS026)	Follows instructions to record their observations	• *Elaborate* phase in: *Bend it! Stretch it!*	• Requires help to use informal measurements to collect and record observations	• Follows instructions to record their 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 (ACSIS027)	Follows instructions to sort their observations	• *Elaborate* phase in: *Bend it! Stretch it!*	• Requires help to record observations in provided tables	• Follows instructions to sort their observations	• Independently records observations in provided tables
	Through discussion, compare observations with predictions (ACSIS212)	Shares their observations with others	• *Elaborate* phase in: *Bend it! Stretch it!*	• Makes predictions without supporting ideas	• Shares their observations with others	• Discusses and compares observations with predictions

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				BELOW ACHIEVEMENT STANDARD	AT ACHIEVEMENT STANDARD	ABOVE ACHIEVEMENT STANDARD
SCIENCE INQUIRY SKILLS						
Evaluating	Compare observations with those of others (ACSIS213)	Shares their observations with others	• *Elaborate* phase in: *Bend it! Stretch it!*	• With support, shares their observations with others	• Shares their observations with others	• Discusses 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 (ACSIS029)	Shares their observations with others	• *Elaborate* phase in: *Bend it! Stretch it!*	• Uses drawings to represent observations	• Shares their observations with others	• Explains their observations and ideas 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.

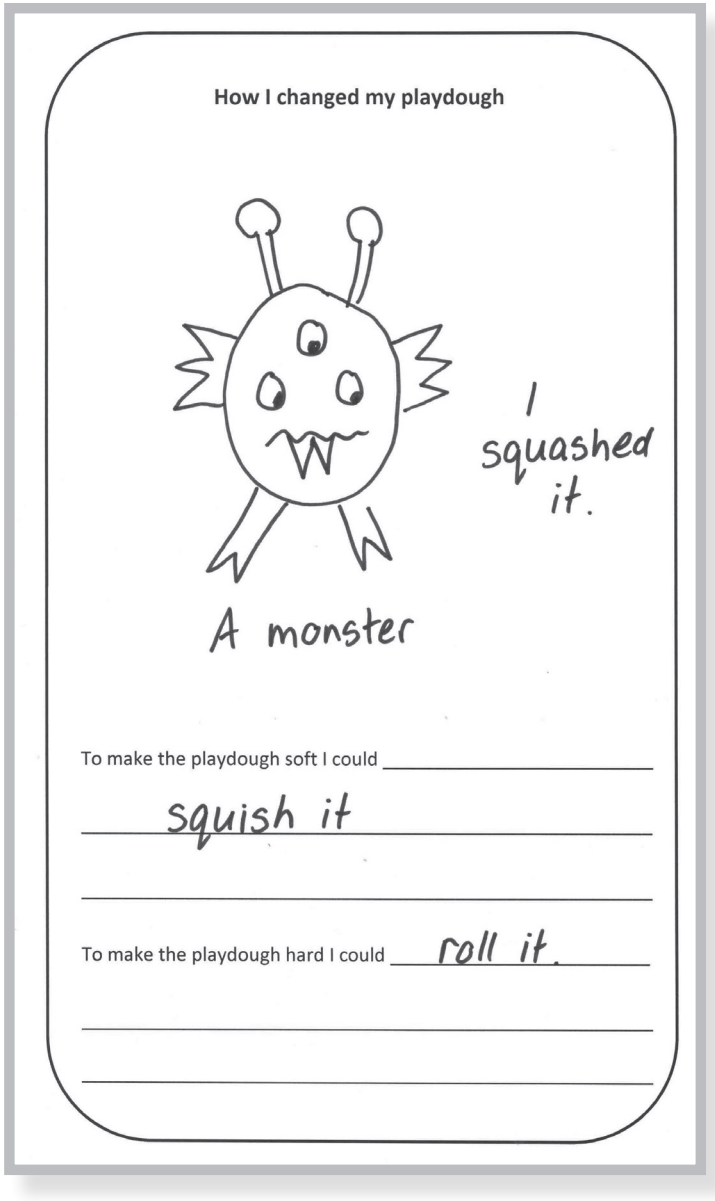
Acknowledgements
Primary**Connections** is supported by the Australian Government.

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

Year 1
Work samples

Summative Assessment of Science Understanding

Below Achievement Standard



How I changed my playdough

I squashed it.

A monster

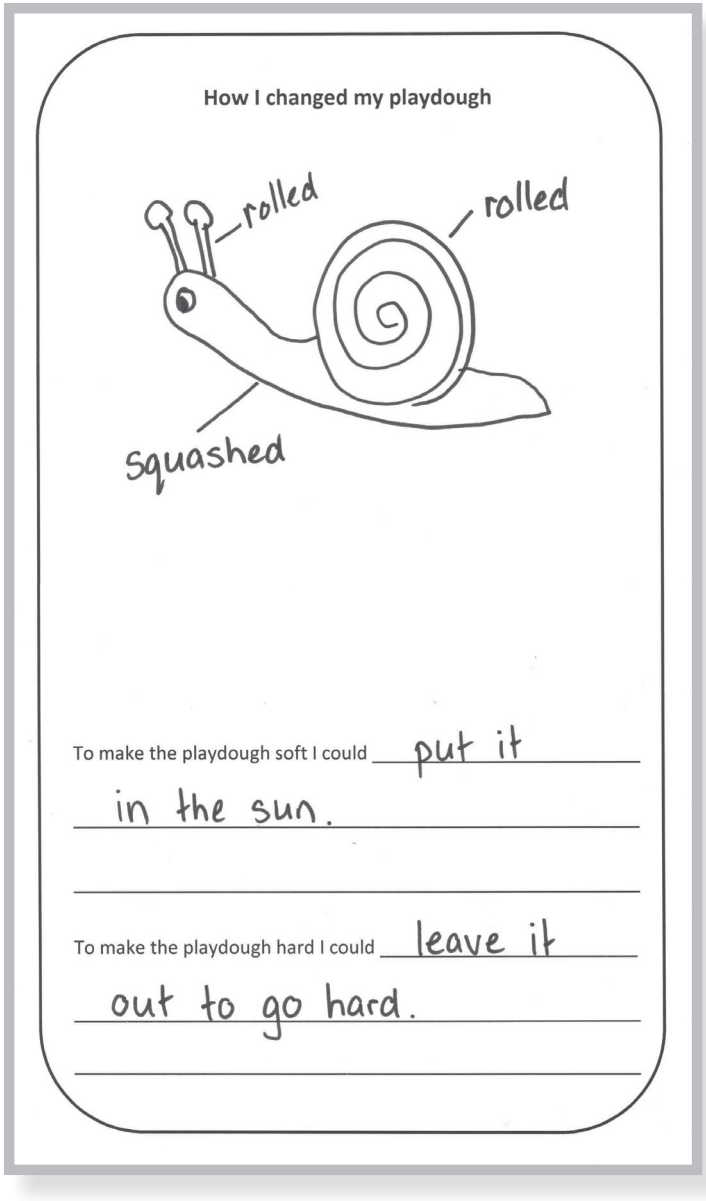
To make the playdough soft I could squish it

To make the playdough hard I could roll it.

Year 1
Work samples

Summative Assessment of Science Understanding

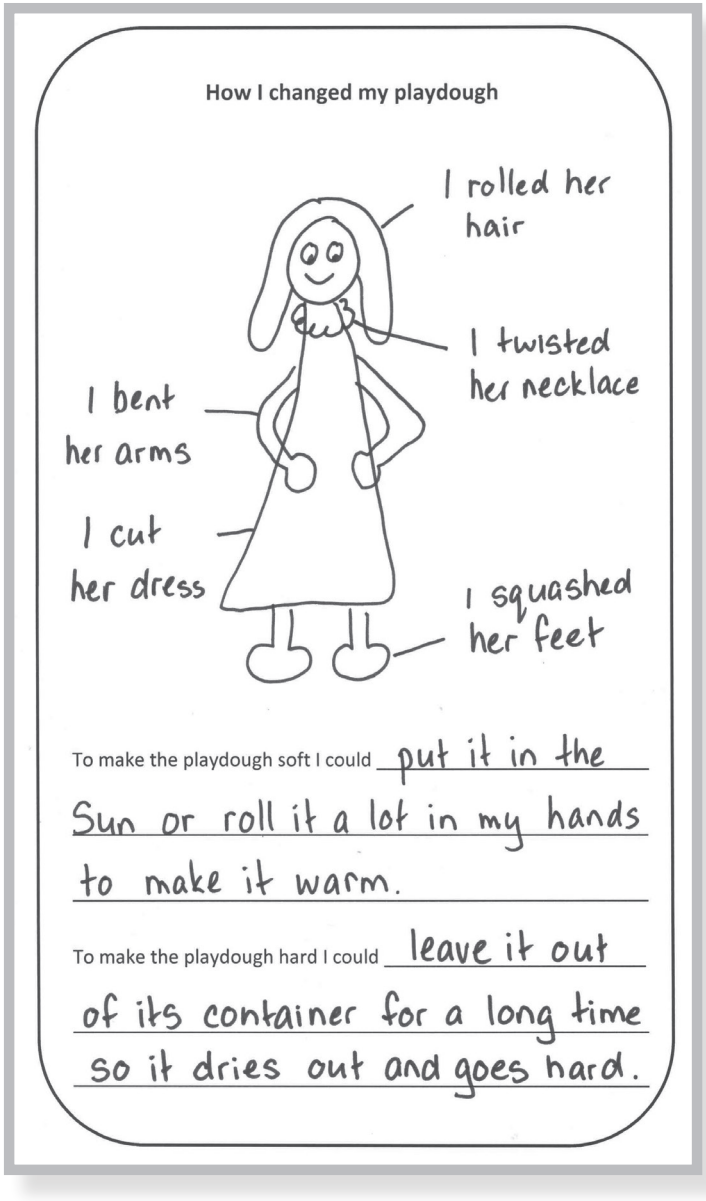
At Achievement Standard



Year 1
Work samples

Summative Assessment of Science Understanding

Above Achievement Standard


How I changed my playdough

I rolled her hair

I twisted her necklace

I bent her arms

I cut her dress

I squashed her feet

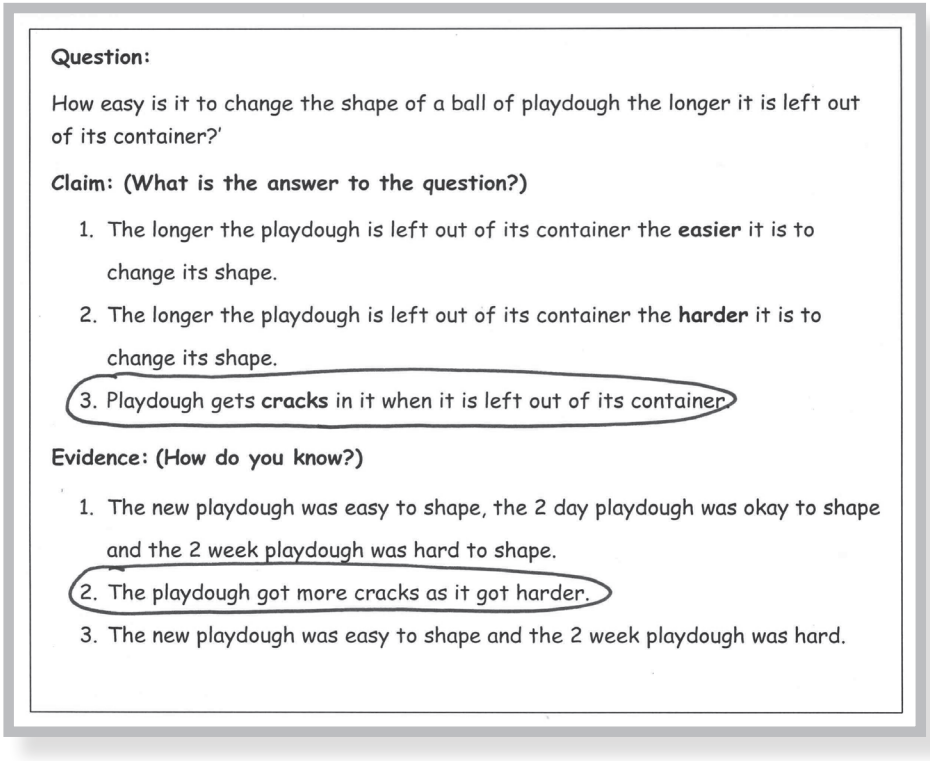
To make the playdough soft I could put it in the Sun or roll it a lot in my hands to make it warm.

To make the playdough hard I could leave it out of its container for a long time so it dries out and goes hard.

Year 1
Work samples

Summative Assessment of Science Inquiry Skills

Below Achievement Standard



Question:

How easy is it to change the shape of a ball of playdough the longer it is left out of its container?'

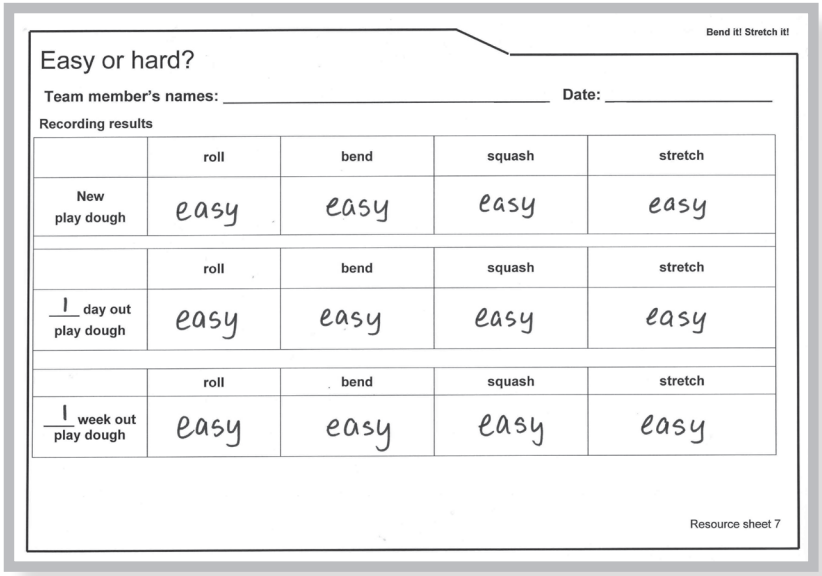
Claim: (What is the answer to the question?)

1. The longer the playdough is left out of its container the **easier** it is to change its shape.
2. The longer the playdough is left out of its container the **harder** it is to change its shape.
3. Playdough gets **cracks** in it when it is left out of its container.

Evidence: (How do you know?)

1. The new playdough was easy to shape, the 2 day playdough was okay to shape and the 2 week playdough was hard to shape.
2. The playdough got more cracks as it got harder.
3. The new playdough was easy to shape and the 2 week playdough was hard.

Processing and analysing data and information



Bend it! Stretch it!

Easy or hard?

Team member's names: _____ Date: _____

Recording results

	roll	bend	squash	stretch
New play dough	easy	easy	easy	easy
	roll	bend	squash	stretch
1 day out play dough	easy	easy	easy	easy
	roll	bend	squash	stretch
1 week out play dough	easy	easy	easy	easy

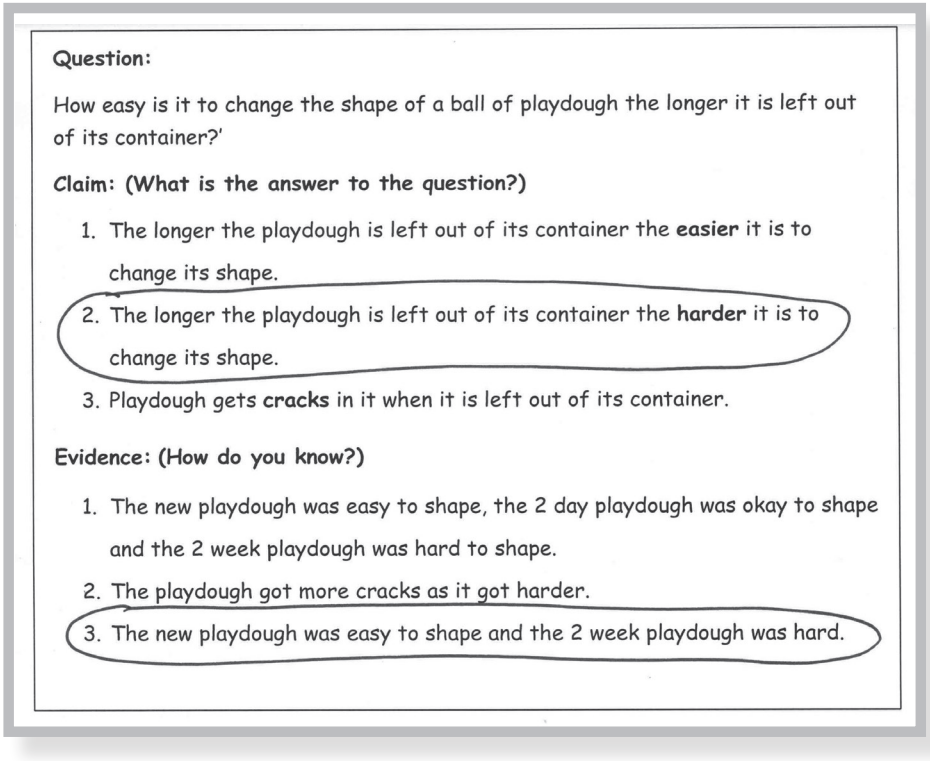
Resource sheet 7

Planning and conducting

Year 1
Work samples

Summative Assessment of Science Inquiry Skills

At Achievement Standard



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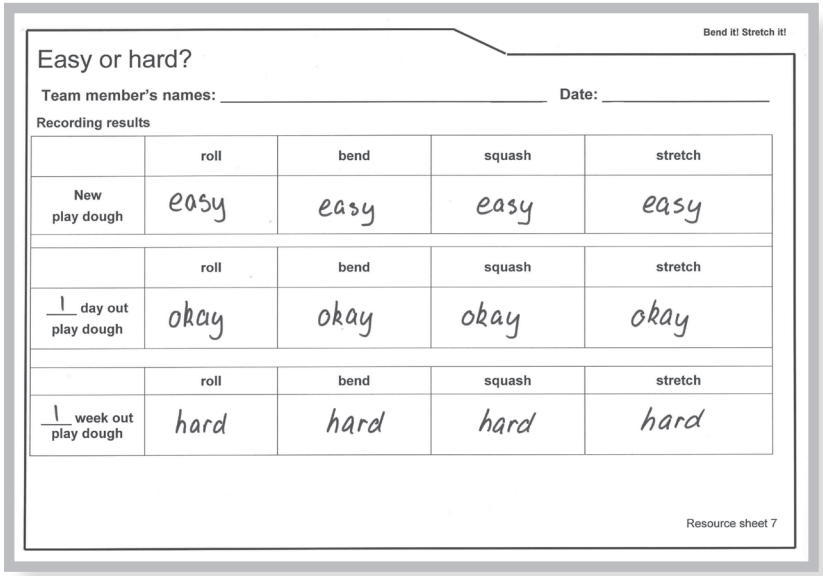


Bend it! Stretch it!

Easy or hard?

Team member's names: _____ Date: _____

Recording results

	roll	bend	squash	stretch
New play dough	easy	easy	easy	easy
	roll	bend	squash	stretch
1 day out play dough	okay	okay	okay	okay
	roll	bend	squash	stretch
1 week out play dough	hard	hard	hard	hard

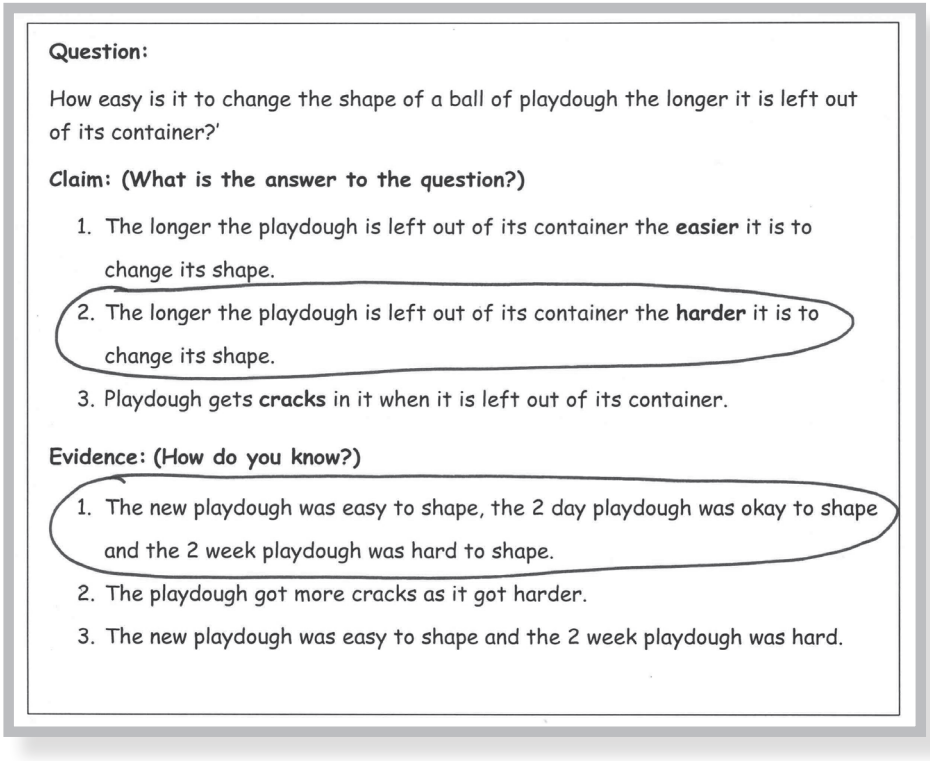
Resource sheet 7

Planning and conducting

Year 1
Work samples

Summative Assessment of Science Inquiry Skills

Above Achievement Standard



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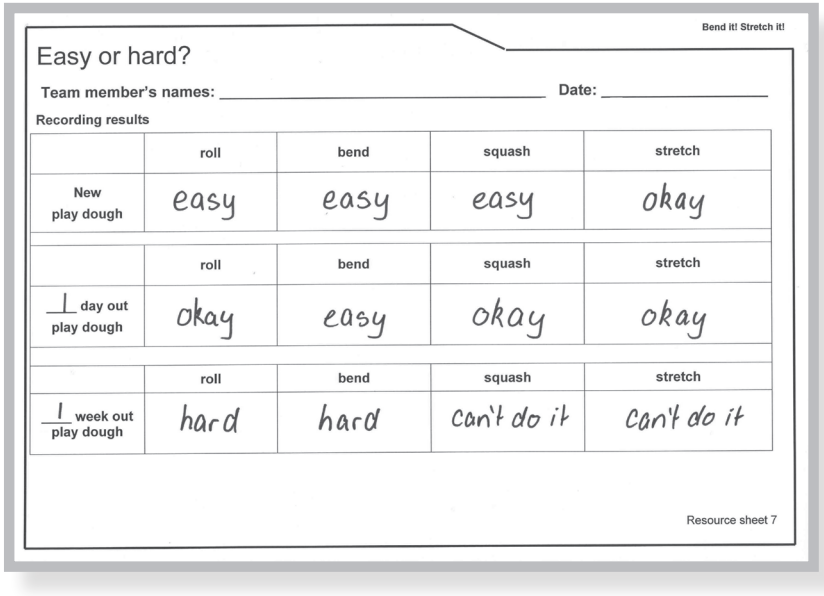

Bend it! Stretch it!

Easy or hard?

Team member's names: _____ Date: _____

Recording results

	roll	bend	squash	stretch
New play dough	easy	easy	easy	okay
	roll	bend	squash	stretch
1 day out play dough	okay	easy	okay	okay
	roll	bend	squash	stretch
1 week out play dough	hard	hard	can't do it	can't do it

Resource sheet 7

Planning and conducting

Student Self-Assessment

Bend it! Stretch it! Student checklist Year 1

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 ways that I can change materials and objects.			
Science as a Human Endeavour	I can ask questions about things around me.			
	I can say how to look after things around me.			
Science Inquiry Skills	I can say what I think will happen when I explore things.			
	I can explore things around me.			
	I can make drawings about what I have found out.			
	I can share what I have found out with others.			

Achievement Standard Class Checklist

Year 1 Chemical sciences

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

	Science Understanding	**Science as a Human Endeavour**		**Science Inquiry Skills**				
	Describes the effects of interacting with materials and objects	Describes changes to things in their local environment	Suggests how science helps people care for environments	Shares observations of familiar objects and events				
				Makes predictions	Investigates everyday phenomena	Follows instructions to record their observations	Follows instructions to sort their observations	Shares their observations with others
Example: Student A	AAS		AS	AS	AS	AS	AS	AS

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.