

Lesson 1

The Mystery Science Box

Prep
Science



Duration:
40 minutes



Lesson Focus:

Using the senses to observe and describe the properties of everyday objects and materials.



Resources



Lesson Story YouTube:
The Mystery Science Box
from (Banjo Education
Support YouTube Channel.)



Mystery Science Box with safe
everyday objects



Student activity/worksheet:
Science Detectives / object
observation recording



Pencils



Optional hand lenses

Resource Purpose

The story introduces Mia and Noah as science detectives and models observing without immediately naming an object. The mystery-box activity lets students apply the same process before recording evidence on the worksheet.

Success Criteria

- ✓ I can use my senses safely to observe an object.
- ✓ I can describe an object using observable properties.
- ✓ I can use evidence to make a scientific guess.

Learning Intention



We are learning to observe objects carefully and describe what we notice.



Key Vocabulary

observe • object • material •
property • colour • shape •
texture • hard • soft • evidence

40-Minute Lesson Sequence

Time	Lesson Stage	Teacher Actions	Student Actions
0–5 min	Engage / Hook	Show the closed Mystery Science Box. Ask: How could we work out what is inside without being told?	Observe, predict and share existing ideas.
5–13 min	Lesson Story	Play/watch The Mystery Science Box lesson story. Pause briefly when Mia and Noah observe mystery objects and invite students to predict from the clues.	Watch, listen, respond to prompts and make predictions.
13–18 min	Explicit Teaching	Revisit the story's science-detective process: look closely, touch safely where appropriate, describe what you notice, then make a guess. Model one object without naming it.	Identify the key scientific idea and practise vocabulary.
18–28 min	Hands-On Activity	Students take turns investigating mystery objects. They describe colour, shape, texture and whether the object feels hard/soft or smooth/rough before revealing it.	Investigate collaboratively and use observations as evidence.
28–35 min	Worksheet Task	Students complete the Lesson 1 worksheet by recording/drawing selected mystery objects and the evidence they used to identify them.	Record the most important evidence from the activity.
35–38 min	Analyse & Discuss	Compare descriptions. Emphasise that scientists use observations as evidence, not just guesses.	Share findings, compare ideas and justify responses.
38–39 min	I Wonder...	I notice... / I wonder... What other property could help us describe an object?	Develop or discuss a scientific question.
39–40 min	Exit Ticket	Name one property you observed today and the object that showed it.	Give one individual evidence-based response.



Explicit Teaching

Scientific Idea: Everyday objects and materials have observable properties. Scientists observe these properties carefully and use them as evidence.

Board Model:

OBJECT → OBSERVE → PROPERTY → EVIDENCE



Student Investigation

Story → hands-on activity → worksheet evidence. Students first encounter the scientific idea through the lesson story, then apply it with real objects/materials, and finally record only the key evidence needed to show their understanding.

Investigation Prompt:
What does our evidence tell us?



Teacher Questioning

- What do you notice?
- What evidence supports your idea?
- What is the same? What is different?
- Which science word describes this?
- How do you know?
- What happened when you tested it?



Expected Big Idea

Everyday objects and materials have observable properties. Scientists observe these properties carefully and use them as evidence.



Curriculum Links – Prep (AC v9)

AC9SFU03	Recognise that objects can be composed of different materials and describe their observable properties.
AC9SFH01	Explore how people use observations and questions to learn about the natural world.
AC9SFI01	Pose questions and make predictions based on experiences.
AC9SFI02	Engage in explorations safely and make observations using the senses.
AC9SFI03	Represent observations using provided structures and identify patterns with guidance.
AC9SFI04	Compare observations with predictions.
AC9SFI05	Share questions, predictions, observations and ideas with others.

Name: _____



Science Detectives



Our Observations – Circle what we notice.

MYSTERY OBJECT ONE



Circle the properties we notice.

- ☐ Hard
- ☐ Rough
- ☐ Bumpy
- ☐ Brown
- ☐ Smells like the forest

It's a...

PINE CONE!



MYSTERY OBJECT TWO



Circle the properties we notice.

- ☐ Soft
- ☐ Light
- ☐ White
- ☐ Fluffy
- ☐ No strong smell

It's a...

COTTON BALL!



MYSTERY OBJECT THREE



Circle the properties we notice.

- ☐ Hard
- ☐ Smooth
- ☐ Cold
- ☐ Heavy
- ☐ Shiny
- ☐ Makes a clinking sound

It's a...

METAL SPOON!



MYSTERY OBJECT FOUR



Circle the properties we notice.

- ☐ Soft
- ☐ Flexible
- ☐ Light
- ☐ Squishy
- ☐ Tiny holes
- ☐ Smells a little clean

It's a...

SPONGE!



MYSTERY OBJECT FIVE



Circle the properties we notice.

- ☐ Smooth
- ☐ Light
- ☐ Shiny
- ☐ Slightly flexible
- ☐ Bright red
- ☐ Makes a quiet sound
- ☐ Smells like new plastic

It's a...

PLASTIC TOY!



What was your favourite object to explore? Why? _____

