

SCIENCE







Lesson 1

Prep

Topic: Identifying materials

Discovering materials

Lesson concepts

-  Objects are made of materials
-  Science involves exploring and observing the world using the senses
-  Questions can obtain responses
-  Observations can be made using the senses
-  Observations can be discussed and ideas can be represented
-  Observations and ideas can be shared

Learning alerts

Be aware of students who may continue to associate the term 'material' with only clothes.

Suggested next steps for learning

- Explain to students that clothes are made of a material called 'fabric'. Demonstrate that other materials can also be found in some clothes, including plastic, for example: buttons, zips. Allow opportunities to use the term 'material' in many different contexts other than clothes, for example: What material is this made from?

Today students will:

- ▶ understand that there is a difference between an object and the material the object is made from.

Resources

Digital

Slideshow — Ollie's ornaments

Find and prepare

Sheet — Objects and materials science word list (Prep) (cut out; select the cards: senses, object, material)

Sheet — Material word cards (cut out; select the cards: wood, paper, ceramic, glass, rubber, fabric, cardboard, metal, plastic)

Senses poster

Mystery box (shoe box with a hole cut in the end; place a sports shoe in the box)

Stapler

Tea towel

Mobile phone

Key terms

object, material, scientist, observe, senses

For definitions and explanations of terms, please see the [Glossary](#).

Keep the **Glossary** for reference throughout this unit.

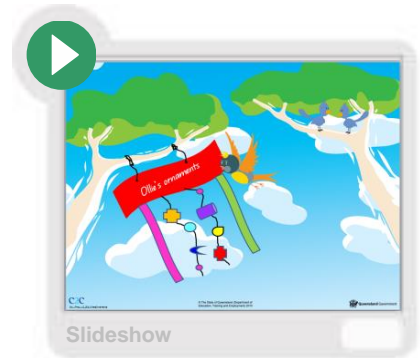
Lesson

Note

Ensure the sports shoe is placed inside the mystery box before the lesson so students do not see it.

Display **Slideshow — Ollie’s ornaments**.

- a. Share ideas about what may have been used to make the ornaments.



Understand the term ‘object’

Say to students

‘ When we are thinking scientifically about objects, we need to use our senses to make observations. This is what scientists do in their work. ’

1. Display the [Senses poster](#).

Focus questions

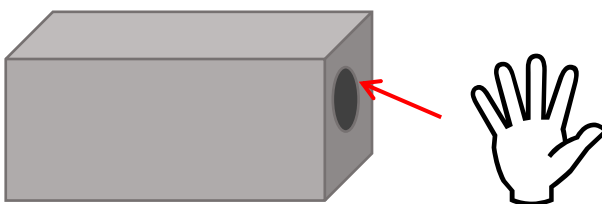
Q: *What senses can we use to observe objects?*

A: Sight, sound, touch, smell and taste

Q: *Tell me the parts of your body that you use to make these different observations.*

A: Eyes to see; ears to hear; hands, fingers, feet, skin to feel things; nose to smell things; tongue to taste things

2. Display the mystery box with your hand covering the hole.



Say to students

‘ We are going to play an object game where we use our senses. I have hidden something in this box and we are going to use our senses to solve the mystery of what the object is. The last sense we will use is sight (looking in the box). ’

- a. Students describe their observations by:
- listening
 - shaking and listening
 - feeling the weight
 - smelling
 - feeling through the hole.

Focus questions

Q: *What do you think is in the mystery box?*
A: A sports shoe

- b. Give student the mystery box and invite them to check their guess by looking.

Say to students

‘ In Science, we refer to this shoe as an object. **Objects** are the real things in our lives that we can see or touch. They are all around us. Plants, people and other animals are not called objects; we call these living things. This is how we write the word ‘object’. ’



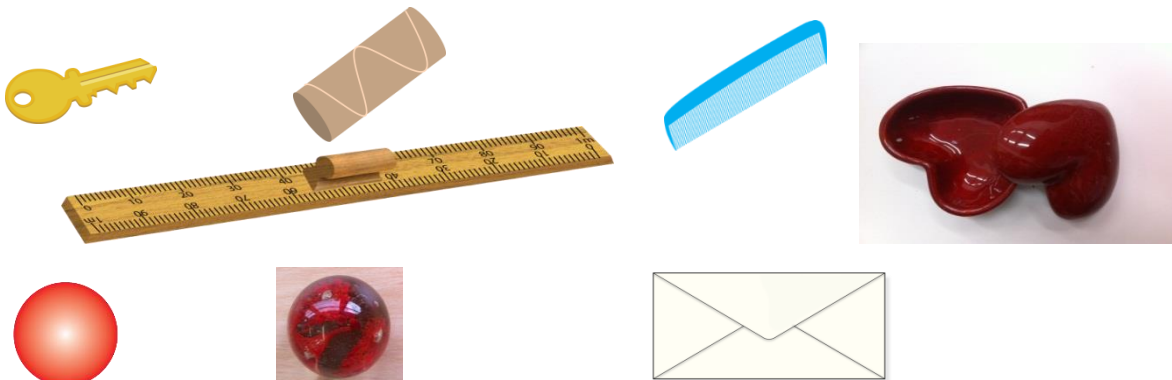
3. Display and read the word card ‘object’ cut from the **Sheet** — [Objects and materials science word list \(Prep\)](#).

Say to students

‘ In this Science unit, we will also be learning about what different objects are made from. ’

Understand the term ‘materials’

4. Display a set of objects, for example:



Say to students

‘ These are all objects. Use your senses to observe these objects. In science we call the substance that objects are made from, the **material**. ’

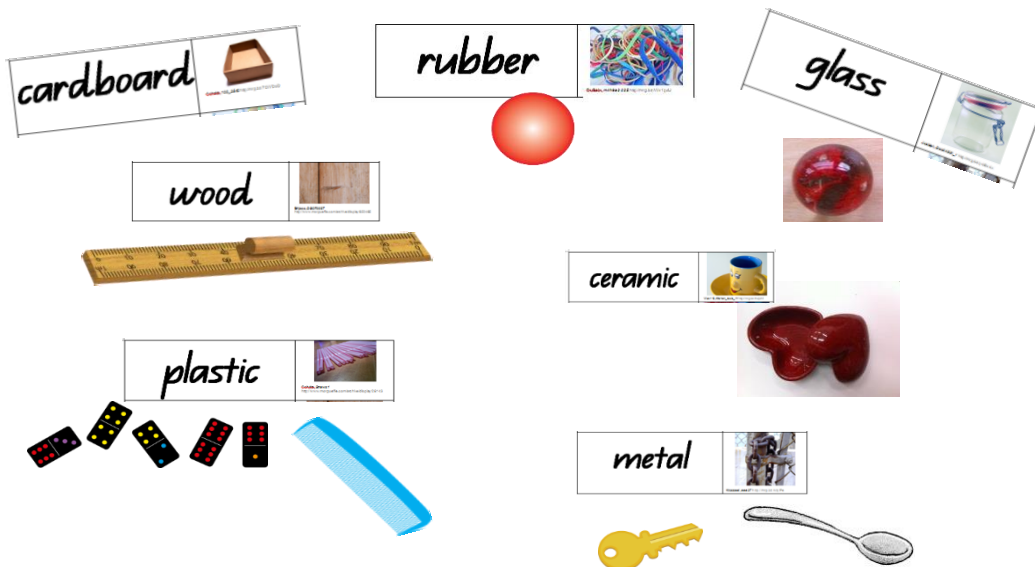


- Display and read the word card ‘material’ cut from **Sheet — [Material word cards](#)**.
- Keep the following material cards ready for next activity: wood, paper, ceramic, glass, rubber, cardboard, metal, plastic, fabric.

Say to students

‘ Look at the objects again and see if you can name the material each is made from. I will find the word card that identifies this material. Use your senses to make accurate observations of what each material is like. ’

- Show the student the word card that matches the material they name and describe.
 - Place it with the object.
 - Repeat for all objects.



Understand the term 'fabric'

5. Display the tea towel.



Say to students

‘ Sometimes we may say that objects like this tea towel and our clothes are made out of material. In science we use the term ‘fabric’ to describe what our clothes, towels, sheets, some hats, shoes and other things are made from. Most soft toys are made from some type of fabric. ’

- a. Locate the word card ‘fabric’ and place with tea towel and any other objects made from fabric.



Consider objects made from more than one material

Say to students

‘ Many different materials are used to make objects. There are even **scientists** who work with materials by testing them and observing them. They also try and improve these materials or make new types of materials. ’

The objects we have looked at so far are made from just one material. But many objects are made from joining two or more materials together. ’

6. Display the stapler or mobile phone.



Focus questions

Q: *What materials do you think this object is made from?*

A: For example: metal, plastic and glass

Q: *Name some other objects around the room that are made from more than one material.*

A: For example: stapler, computer, window, pencil sharpener

Say to students

‘ We can see that some objects are made from just one material and others are made from a combination of materials. ’

Note

Leave the objects and cards from above activity in place. Students will sort and add items in the next task.

Match and sort materials of objects

Say to students

‘ Now that we have identified some materials, we are going to finish with a guessing and sorting game using some different objects. We will use our mystery box/bag but with different objects. ’

7. Place the container that holds a range of objects near the students and ask them to:
 - close their eyes while you choose one object from the container and place it in the mystery box
 - put their hand in and feel the object
 - name the object and have a go at naming the material
 - reveal the object and share ideas about the material or materials
 - place the object near the word card of the same material as per the previous activity.
- a. Try with a few more objects.
- b. Share ideas about some groups of materials, for example: these objects are all made from plastic; plastic comes in many shapes and colours; these plastic objects feel smooth.

Say to students

‘ We now know what the science words ‘objects’ and ‘materials’ mean and what some types of materials are called. ’