

SCIENCE






Lesson 1

Prep Unit 1

Topic: The living world

Exploring science and our senses

Lesson concepts

-  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
-  Observations and ideas can be shared

Learning alerts

Be aware of:

- students using generalisations rather than observations, for example, sand comes from the beach.

Suggested next steps for learning

- Review the senses and identify how these are used in observations, for example, *What can you see? What can you feel?*

Today students will:

- ▶ recognise how their senses can help them learn about the world.

Resources

Digital

Video — Feathers, fur and fins, 'The prickly world of echidnas' (1:46)

Find and prepare

Sheet — Hokey Pokey signs

Sheet — Five senses poster

apple or other piece of fruit/food

1–2 objects to explore with the senses (do not need to be tasted, try to select more unusual ones for example, perhaps a less common kitchen tool, cooking ingredient, herb or type of sandpaper)

Key terms

senses, observe, science

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

Lesson

FT Explore the senses

Say to students

‘ We are going to watch a video to give you a clue about what we will be learning about in this lesson. Watch the video and then I will ask you some questions. ’



Click on the picture to **view the Video — Feathers, fur and fins, 'The prickly world of echidnas'**.



Video

1:46

Feathers, fur and fins, 'The prickly world of echidnas' (1:41) (ABC Splash)
<http://abcspla.sh/m/155080>
CC BY-SA 3.0 creativecommons.org/licenses/by-sa/3.0/

In this video the person observes and describes the appearance and behaviour of an echidna in a scientific way.

Focus questions

Q: *What did you find interesting in the video?*

A: Personal response required.

Q: *Is the video a make-believe story or true information about echidnas?*

A: True information

Q: *How do you think the man knew what to say about the echidna?*

A: For example: the man watched the echidna to learn these things.

Q: *Why do you think they made the video?*

A: For example: to teach others about echidnas.

Say to students

‘ There are many people who watch and learn about animals. We call this ‘observing’. This is an important part of what we know as ‘science’. Each week we will be having a science lesson. You may already have some ideas about science. ’

Focus questions

Q: *What do you think of when you hear the word science?*

A: For example: mixing things in test tubes, inventing things, working in laboratories or looking in microscopes.

Q: *What do you call someone who works with science?*

A: A scientist.

Q: *Where do you think scientists might work?*

A: For example: laboratories, schools and universities. Answers can be guided to show that scientists work in many different places, including outdoors (for example, in oceans, on islands, in zoos, in national parks, on farms), in factories, in space or down mines to name just a few. If you can identify particular scientists known to the students (both local and on TV/in books) these will be very meaningful.

Q: *Why should we learn about science?*

A: For example: it helps us understand how our world works and helps us to make changes to improve our world.

Say to students

Science is a very important part of our lives. Science is about observing and asking questions to understand why things happen. Scientists think about how they can make things better in our world.

To begin this science lesson we are going to play a game called the *Hokey Pokey*. We are only going to use the parts of our bodies that are known as our 'senses'.

I will begin. I am choosing our ears. Our ears are how we hear the world around us.

So I'm going to sing:

I put my hearing ear in; my hearing ear out; my hearing ear in and I shake it all about.

I do the Hokey Pokey and I turn around.

And that's what it's all about.

Note

The actions for the Hokey Pokey are: lean to put an ear forward for 'in', lean back for 'out', lean forward, shake head 'all about', hands on hips and wiggle side-to-side for the 'hokey pokey', turning on the spot, clap hands for the last line.



Display and read the 'hearing ears' word card from the **Sheet** — [Hokey Pokey signs](#).

Tasting tongue	
Seeing eyes	
Smelling nose	
Feeling hands	
Hearing ears	

Focus question

Q: *What is another sense that we use in our lives every day?*

A: For example: seeing eyes, tasting tongue, feeling hands or smelling nose.

Repeat the Hokey Pokey and display each word card until all five senses are identified.

Note



During science activities, using the sense of taste should be kept to a minimum. Students should only taste safe and edible food products and only when fully supervised by an adult.

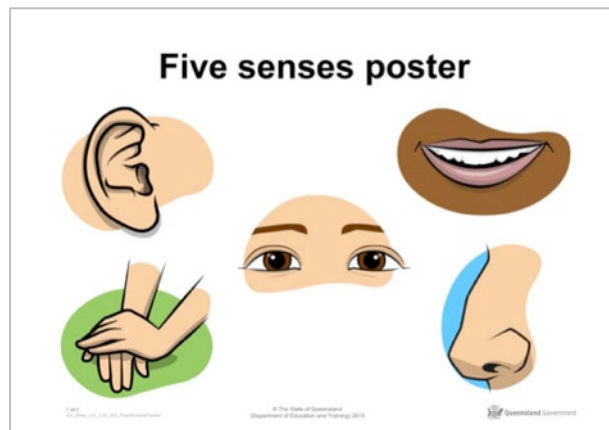
Say to students

At the beginning of the lesson we talked about how science is about exploring and observing the world. Just like us, all scientists use their senses to do this; they explore and observe the world around them very carefully using their senses. Often we don't think about how important our senses are. For example, when we eat an apple we often just take a bite and chew it up. We might take a second to think about how good it tastes but that's about it.

We are now going to observe an apple like a scientist would. I want you to be like a scientist and first tell me how you will use your senses to observe the apple. Here is a poster to help you remember the different senses.



Display the **Sheet** — [Five senses poster](#).



Images courtesy of <http://www.openclipart.org/>

Focus question

Q: *How will you observe the apple?*

A: For example: I will look at it, then touch it and smell it. Then I will take a bite and taste it and listen to it crunch.

Say to students

Here is an apple. Take your time and really explore each sense one at a time. Tell me about what you are sensing.

Explore the apple and share ideas about what is being sensed. Prompt to elicit detail.

On the poster, record some of the descriptive words used.

Say to students

‘ When scientists observe things they need to find out as much as they can about something. To do this they like to use as many of their senses as they can. Imagine if you could only look at an apple but not taste, smell, hear or feel it. You wouldn’t really know much about the apple would you? Scientists know how important it is to use senses to make observations. ’

INV Practise using the senses

Say to students

‘ In science, our senses also help us to ask questions about what we are exploring. For example: What is that smell? What will that feel like? Why does that look different to this?

We are now going to use our senses to ask some questions and explore some other objects. ’

Display an object.

Focus question

Q: *What questions could we ask about this object using the sense words?*

A: For example: What does it smell like?

Ask students to:

- begin exploring the object
- share what they observe
- try closing their eyes to really let their feeling hands do their job.



Repeat with another object if desired.

Focus questions

Q: *Did you expect the object to feel the way it did? Why?*

A: For example: Yes, because it looked smooth and shiny and when I touched it, it felt that way.

Q: *If someone gave you a new toy, what senses would you want to use to play with it?*

A: For example: I would look at it and want to touch it. I would listen if it made a sound.

Q: *Would you usually taste it? Why?*

A: For example: No, because toys are not usually for tasting, you could choke if you swallowed a part. You might get sick.

FT



Say to students

Depending on the situation, we can choose not to use one or more of our senses. For example, we should never look at the sun or listen to very loud sounds. Some things may be dangerous to touch because they are poisonous, spikey, hot or have germs. Other things cannot be felt, for example, air and light. Some things are too small or too far away to sense, for example, other planets.

Sometimes people do not have a choice. For example, sometimes people's ears or eyes may be damaged so they cannot see or hear things. These people can still explore and observe the world in other ways.

Focus question

Q: *How would you explore the world if you couldn't see?*

A: For example: I would use my other senses. I would feel things really carefully. I would ask other people to tell me about what things look like.

Say to students

People are very clever. When one of their senses isn't working they can learn to use their other senses really well. There are scientists who work to fix people's ears and eyes and some who make special equipment like hearing aids, computers that talk to you and books that you can feel.

Consolidate learning

Say to students

‘ This lesson has been about our senses. Scientists often gather lots of information using the senses in their work. ’

Focus question

Q: If you had to tell someone about our senses and why they are so important in science, what would you say?

A: For example:

- Our senses are hearing, seeing, touching, feeling and tasting.
- Scientists use their senses to explore, observe and ask questions.
- If we use all our senses we get to know a lot about things.
- We can't always use all of our senses.