

I feel the Earth move

Week 1 Term 2

27th April, 2020

Classes P2, P3 & P10



What do you know about day and night? What do you know about the sun, moon and Earth?

Note to parent/caregiver

Science is a dynamic, collaborative and creative human endeavour arising from our desire to make sense of our world through exploring the unknown, investigating universal mysteries, making predictions and solving problems.

Through 'inquiry' we pose big questions that don't necessarily have one answer. We adopt an investigative approach to **teaching** and **learning** where students are provided with opportunities to investigate a problem, search for possible solutions, make observations, ask questions, test out ideas, and think creatively AND *use their intuition*.

Lessons 1 & 2 are designed to establish what the students believe to be true about the sun, moon and Earth, and what causes day and night. Any misconceptions should become clear as they reflect on Dreamtime stories about the sun and moon and create concept maps of their prior knowledge.

I am excited to share your child's science learning journey this term and look forward to viewing their work. Please trim and glue any resource sheets from this fortnight work into the 'Home Learning' booklet, then take a photo of all work and email it to me by Friday 8th May, 2020.

Claudine Green 😊

Claudine.Green536@schools.sa.edu.au

Safety

Remind students not to look directly at the Sun

Resources

Where possible answers can be recorded directly into the 'Home learning' booklet (*instead of printing out the worksheets*).

1. Short animation for task 1

https://www.youtube.com/watch?v=QH90a_nJUAE

2. Resource sheet 1

3. Dreamtime stories:

- a. <https://www.youtube.com/watch?v=C9BBZz9qSvE&list=PLscMLzWTKYcbzbNRz0xfj8VQgI5u5cATe&index=16&t=0s>

- b. <https://www.youtube.com/watch?v=azXGOP4JgjM>

TASK 1: Introduction

1. Short animation for task 1

https://www.youtube.com/watch?v=QH90a_nJUAE

Watch the short animation to introduce the topic of day and night. Discuss what the video showed and what difference there is between day and night.

Ask questions such as:

- How do you know when it is day?

- How do you know when it is night?
- What is the difference between day and night?
- Where do you think the sun goes at night?

TASK 2: What do you already know?

On separate pieces of paper (smaller sized), write the words sun, Earth, moon, day and night. Brainstorm as much as you know about each word. Spend only a few minutes on each word.

TASK 3: Predictions

Complete resource sheet 1

Extension:

Watch the Dreamtime stories about the sun and moon. Discuss the stories and share what you believe of how the moon and sun came to be.

- a. <https://www.youtube.com/watch?v=C9BBZz9qSvE&list=PLscMLzWTKYcbzbNRz0xfj8VQgl5u5cATe&index=16&t=0s>
- b. <https://www.youtube.com/watch?v=azXGOP4JgjM>

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Week 2 Term 2

4th May, 2020

Classes P2, P3 & P10



What causes shadows and how do they change throughout the day?

Note to parent / caregiver

This lesson will require student to draw a chalk outline of their shadow at three different times of the day (morning, noon and afternoon).

STEM: Sundial experiment (don't forget to send photos).

Can be completed in week 3 if needed.

Claudine Green 😊

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Safety

Remind students not to look directly at the Sun

Resources

Chalk

Resource sheet 2: *'My shadow'* by Robert Louis Stevenson

Resource sheets 3 & 4: Shadow recording sheets

Sundial experiment materials:

- A Stick, dowelling or a straw
- Paper plate or cardboard to act as the base
- Markers
- Ruler
- Tape or Blu-Tack

TASK 1: 'My shadow' poem

Read the poem *My shadow* by Robert Louis Stevenson.

Discuss these questions:

- What are shadows?
- What two things do you need to make a shadow?
- What causes the shadow to appear before the boy jumps into bed?
- Does the shadow really grow?
- Why is the shadow so close?
- Did the shadow really stay in bed when the boy got up before sunrise?

TASK 2: Shadow recording

Complete resource sheets 3 & 4

TASK 3: Sundial experiment

Resource sheet 5

Predictions about the sun, moon and Earth

1. What do you think causes day and night?

2. Write one or two questions you want to find out about the sun, moon or Earth.

3. Write what you think the answer(s) might be.

4. How could you find out the answer(s)?

Poem



My shadow

by Robert Louis Stevenson

I have a little shadow that goes in and out with me,
And what can be the use of him is more than I can see.
He is very, very like me from the heels up to the head;
And I see him jump before me, when I jump into my bed.

The funniest thing about him is the way he likes to grow—
Not at all like proper children, which is always very slow;
For he sometimes shoots up taller like an India-rubber ball,
And he sometimes gets so little that there's none of him at all.

He hasn't got a notion of how children ought to play,
And can only make a fool of me in every sort of way.
He stays so close beside me, he's a coward you can see;
I'd think shame to stick to nursie as that shadow sticks to me!

One morning, very early, before the sun was up,
I rose and found the shining dew on every buttercup;
But my lazy little shadow, like an arrant sleepy-head,
Had stayed at home behind me and was fast asleep in bed.

Shadow recording sheet – 1

Predictions

1. How will your body's shadow change throughout the day?

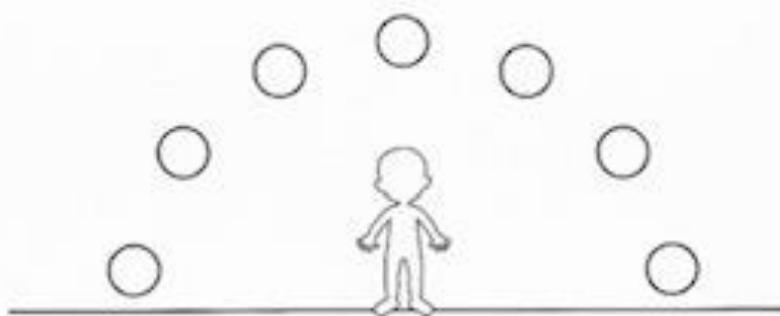
2. What time of day do you think your shadow will shoot up 'like an India-rubber ball'?

3. What time of day do you think your shadow will be 'so little that there's none of him at all'?

Procedure

- Stand in position and have your partner trace your shadow on the ground, then take a photo of your shadow.
- Using the following images:
 - colour the circle that best shows the position of the sun.
 - draw your shadow.

Observation 1



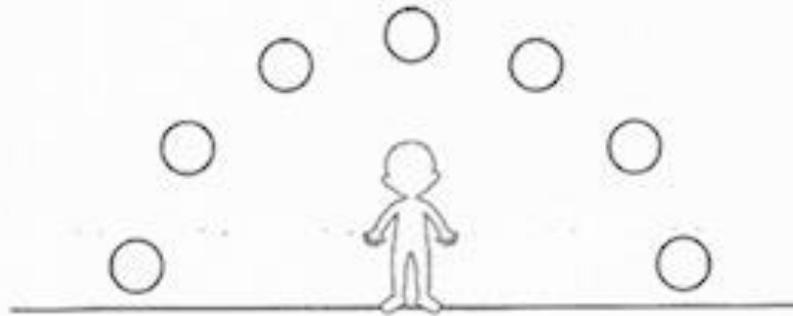
Time: _____

Length of shadow (cm): _____

Describe the shape, size, and direction of the shadow:

Shadow recording sheet – 2

Observation 2

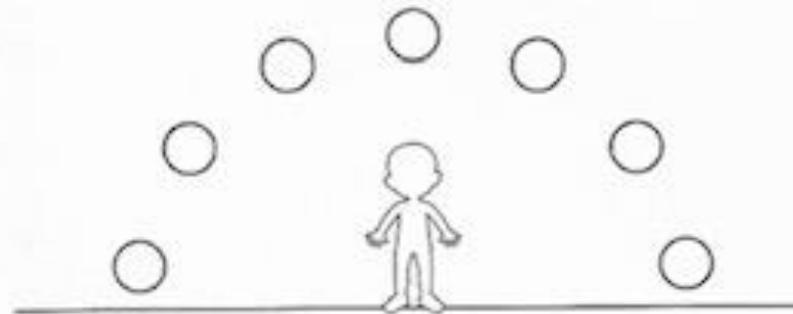


Time: _____

Length of shadow (cm): _____

Describe the shape, size, and direction of the shadow:

Observation 3



Time: _____

Length of shadow (cm): _____

Describe the shape, size, and direction of the shadow:

Conclusion

How and why did your body's shadow change throughout the day?

Sundial experiment

Question:

How can I use the shadows created by the sun to create a clock?

Hypothesis:

I think ... _____

Materials:

- a stick, dowelling or a straw
- a paper plate or piece of cardboard to act as the base
- markers
- ruler
- tape or Blu-Tack®

Procedure:

1. Insert the stick into the centre of the plate and secure with tape or Blu-Tack®.
2. Every hour on the hour, draw a line where the shadow falls and write the time.



Observations:

Conclusion:

What worked well and what didn't? What would you change about your sundial?
