



Year 3 - Teacher Introduction

The Primary Australian Literacy Mathematics & Science (PALMS) Program aims to enrich and support the teaching of earth science from Kindergarten to Year 5 across Australia. This will be achieved by providing, within the mandated Earth and Space Science curriculum, hands-on activities integrating aspects of Chemical Sciences, Physical Sciences and Biological Sciences as well as relevant components of English, Mathematics and other subjects into teaching packages.

These teaching packages will be made available at www.palms.edu.au.

Earth's rotation on its axis causes regular changes, including night and day.

Activities marked **PPP** (PALMS PARENT POWER) are ones you may wish to send home with the students to do with their parents or by themselves. They replay the concepts recently covered in Science. Studies demonstrate that if a student describes what they have learned to another, they deepen their own understanding and retain it longer.

Topic No.	Topic	Activities	Student Worksheet	Subjects	Page No.
1	Sun as a Source of Energy	Seeing is Believing		Science + Health	1
		Light Print Paper	X	Science + technology	2 + 7
		Sun Changed Paper	X	Science Structured Learning	9 + 13
		PPP - Think Ink	X	Science	16 + 18



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Year 3 - Teacher Introduction

Topic No.	Topic	Activities	Student Worksheet	Subjects	Page No.
1	Sun as a Source of Energy	What Colour is White Light?	X	Science + Health	20 + 22
		Sunlight Source	X	Science + English	24 + 25
		Invisible Light	X	Science + Health	27 + 31
		Changing Christmas Baubles	X	Science	33 + 35
		Word Wall	X	Science + English	37 + 38
		What is Hot?	X	Science + Maths	39 + 43
		Parallax Error	X	Science + Maths	44 + 45
		Cool School	X	Science + Maths	46 + 49
		Prediction & Testing	X	Science	53 + 55
		Heat from the Sun	X	Critical thinking	56 + 57
		Sunlight and Shade	X	Science	58 + 59
2	Earth spins	What the Sailor Saw	X	Science	61 + 63
		Earth Spins		Science + HASS	64
		Time Words	X	Science + English	67 + 68
		Day & Night		Science + HASS	69



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Year 3 - Teacher Introduction

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3	Timescales	Aboriginal Time	X	Science + HASS	71 + 74
		Day v Night		English	76
		Time Vocabulary		Science + English	77
		Midday Around the World		Science + HASS	78
		12 Hours		Science + Maths + HASS	80
		Timely Fractions	X	Science + Maths	82 + 83
		Book of Hours	X	Science + English + Maths	84 + 85
		Relative Time Graph	X	Science + Maths	86 + 89
		Time Zones		Science + Technology	92
		Solar & Sidereal Day		Science + HASS	94
4	Shadows	Investigating Shadows	X	Science	97 + 99
		Shadow Graph	X	Science + Maths	102 + 105
		Shadows & Art		Science + Art	107
5	Sundials	Nodal Sundial	X	Science + Maths	108 + 113
		T Bar Sundial	X	Science + Maths + Tech.	117 + 120
		Gnomon Sundial	X	Science + Maths + Technology	123 + 128



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Year 3 - Teacher Introduction

Topic No.	Topic	Activities	Student Worksheet	Subjects	Page No.
5	Sundials	PPP - Digital and Analogue Time	X	Science + Technology	133
6	Sun, Earth & Moon	Getting the Right Perspective	X	Science + Art	135 + 139
		Modelling to Scale	X	Science and Maths	141 + 143
		Rotation and Orbit Models		Science + HASS	145
		Worship the Sun	X	English + Science	149 + 150



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Australian Curriculum

Earth & Space Science

Earth's rotation on its axis causes regular changes, including night and day.

Elaborations

- Recognising the sun as a source of light.
- Constructing sundials and investigating how they work.
- Describing timescales for the rotation of the Earth.
- Modeling the relative sizes and movement of the sun, Earth and moon.

English

Language has different written and visual communication systems, different oral traditions and different ways of constructing meaning. Identify text structures, language features to describe characters, settings & events.

Identify features of online texts that enhance navigation

Learn extended and technical vocabulary.

Use interactive skills

Maths

Tell time to the minute

Make models of three-dimensional objects and describe key features

Create simple column graphs

Recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication.

They model and represent unit fractions.

Students identify symmetry in the environment. Match positions on maps with given information.



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Maths (continued)

Students recognise angles as measures of turn in everyday situations.

Interpret and compare data displays.

Students count to and from 10 000.

Use Iosmetric units for length, mass and capacity.

History (HASS)

Pose questions using past sources

Impact of changing technology

Geography (HASS)

Connections - Where did it come from & how did it get here?

Connections of people in Australia to other places in Australia, countries in the Asian region and across the world.



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