

Fisk Street Primary School Curriculum

Science

Junior Primary

2013

The Fisk Street Primary School Curriculum: Science is taken from the Australian Curriculum and consists of key ideas and developmental learning outcomes across the Early Years (R-2), Primary Years (3-5) and Middle Years (6 -7) incorporating:

- Science understanding
- Science as a human endeavour
- Science inquiry skills

These strands are designed to provide students with understanding, knowledge and skills through which they can develop a scientific view of the world. Students are challenged to explore science, its concepts, nature and uses through clearly described inquiry processes.

Science understanding comprises four sub-strands:

- Biological sciences
- Chemical sciences
- Earth and space sciences
- Physical sciences

Science as a human endeavour is described in two-year bands with two sub-strands:

- Nature and development of science
- Use and influence of science

Science inquiry skills is also described in two-year bands with five sub-strands

- Questioning and predicting
- Planning and conducting
- Processing and analysing data and information
- Evaluating
- Communicating

There are six overarching ideas that represent key aspects of a scientific view of the world and bridge knowledge and understanding across the disciplines of science.

Patterns, order and organisation	Form and function	Stability and change	Scale and measurement	Matter and energy	Systems
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An achievement standard describes the quality of learning that would indicate the student is well placed to commence the learning required at the next level of achievement. The sequence of achievement standards across Foundation to Year 7 describes progress in the learning area. This sequence provides teachers with a framework of growth and development in the learning area.

Student work samples play a key role in communicating expectations described in the achievement standards. Each work sample includes the relevant assessment task, the student's response, and annotations identifying the quality of learning evident in the student's response in relation to relevant parts of the achievement standard. Together, the description of the achievement standard and the accompanying set of annotated work samples help teachers to make judgments about whether students have achieved the standard. Evidence of student achievement is supported by collection of completed works, observations, podcasts, anecdotal notes, journals and portfolios.

Early Years –Science

These are the indicators for reporting to parents. Teachers need to design assessment within their science units which allow for adequate sets of annotated work samples which help to know whether students have achieved the standard. For each of the tasks below teachers are to create an assessment task and outline how they intend to make the assessment at each level.

Assessment for reporting to parents in Term 2 and 4		
RECEPTION	YEAR ONE	YEAR TWO
<p>By the end of Reception students:</p> <ul style="list-style-type: none"> • make observations of familiar objects and materials • explore their properties and behaviour • suggest how the environment affects them and other living things 	<p>By the end of Year 1 students:</p> <ul style="list-style-type: none"> • describe objects and events that they encounter in their everyday lives, • describe the effects of interacting with materials and objects • describe changes to things in their local environment • share their observations with others 	<p>By the end of Year 2 students:</p> <ul style="list-style-type: none"> • pose questions about their experiences • record and represent their observations • communicate their ideas to others • describe changes to objects, materials and living things • identify that certain materials have different uses • identify that resources from the Earth are required by living things • describe examples of where science is used in people’s daily lives

Weekly Overview – Term 1 – Biological Science

Week	Lesson	Resources	Assessment
1	Living things have basic needs, including food and water (ACSSU002)	<u>Food</u> <ul style="list-style-type: none"> • A need or a want • Food for plants & animals 	<p>Reception:</p> <ul style="list-style-type: none"> • make observations of familiar objects and materials (About Me Assessment p10) • suggest how the environment affects them and other living things (Plants and animals Assessment p20) <p>Year One:</p> <ul style="list-style-type: none"> • describe objects and events that they encounter in their everyday lives, (Plants and animals Assessment p20) • share their observations with others (Anecdotal observations, photos or podcasts) <p>Year Two:</p> <ul style="list-style-type: none"> • pose questions about their experiences (Anecdotal observations, photos or podcasts) • record and represent their observations (Plants and animals assessment p20) • communicate their ideas to others (Anecdotal observations, photos or podcasts) • describe changes to living things (About Me Assessment p10) • identify that resources from the Earth are required by living things (Plants and Animals Assessment p20)
2	Living things have a variety of external features (ACSSU017)	<u>Plants & Animals</u> <ul style="list-style-type: none"> • Living and Non living <u>About Me</u> <ul style="list-style-type: none"> • My Body 	
3	Living things live in different places where their needs are met (ACSSU211)	<u>Plants & Animals</u> <ul style="list-style-type: none"> • Look Outside! • Keeping Pets 	
4			
5	Living things grow, change and have offspring similar to themselves (ACSSU030)	<u>About Me</u> <ul style="list-style-type: none"> • Growing Up 	
6	Science involves exploring and observing the world using the senses (ACSHE013)	<u>Plants & Animals</u> <ul style="list-style-type: none"> • Growing Beans <u>About Me</u> <ul style="list-style-type: none"> • Using our Senses 	
7	Science involves asking questions about, and describing changes in, objects and events (ACSHE021) & (ACSHE034)	<u>Growing Plants</u> <ul style="list-style-type: none"> • Plants at school • Parts of a plant 	
8	People use science in their daily lives, including when caring for their environment and living things (ACSHE022) & (ACSHE035)	<u>How to be an explorer of the world</u>	
9	Respond to questions about familiar objects and events (AC SIS014)	Assessments <u>How to be an explorer of the world</u>	
10	Respond to and pose questions, and make predictions about familiar objects and events (AC SIS024) & (AC SIS037)	Revision	

Weekly Overview – Term 2 – Chemical Science

Week	Lesson	Resources	Assessment
1	Objects are made of materials that have observable properties (ACSSU003)	<u>Sorting Materials</u> <ul style="list-style-type: none"> Describing objects Grouping objects <u>Changes in Materials</u> <ul style="list-style-type: none"> Changing shape 	<p>Reception:</p> <ul style="list-style-type: none"> make observations of familiar objects and materials (Sharing in class) explore their properties and behaviour (Science Magic Assessment p60) <p>Year 1:</p> <ul style="list-style-type: none"> describe the effects of interacting with materials and objects (Changes in Materials Assessment p 50) share their observations with others (Sharing in class) <p>Year 2:</p> <ul style="list-style-type: none"> pose questions about their experiences record and represent their observations (Science Magic worksheets) communicate their ideas to others (Sharing in class) describe changes to objects, materials (Exploring Water Assessment p60) identify that certain materials have different uses (Changes in Materials Assessment p50)
2	Everyday materials can be physically changed in a variety of ways (ACSSU018)	<u>Changes in Materials</u> <ul style="list-style-type: none"> Changing by cooking Changing by heating <u>Science Magic</u> <ul style="list-style-type: none"> Magic flowers 	
3	Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)	<u>Changes in Materials</u> <ul style="list-style-type: none"> Changing by cooking <u>Exploring Water</u> <ul style="list-style-type: none"> Mixing 	
4	Explore and make observations by using the senses (AC SIS011)	<u>Science Magic</u> <ul style="list-style-type: none"> Testing tastes 	
5	NAPLAN		
6	Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (AC SIS025) & (AC SIS038)	<u>Exploring Water</u> <ul style="list-style-type: none"> Float or sink 	
7	Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (AC SIS026) & (AC SIS039)	<u>Science Magic</u> <ul style="list-style-type: none"> Snail trails 	
8	Engage in discussions about observations and use methods such as drawing to represent ideas (AC SIS233)	<u>Exploring Water</u> <ul style="list-style-type: none"> Blowing bubbles 	
9	Use a range of methods to sort information, including drawings and provided tables (AC SIS027) & (AC SIS040)	<u>Exploring Water</u> <ul style="list-style-type: none"> What is water 	
10	Through discussion, compare observations with predictions (AC SIS212) & (AC SIS214)	Revision	

Weekly Overview – Term 3 – Earth & Space Science

Week	Lesson	Resources	Assessment
1	Daily and seasonal changes in our environment, including the weather, affect everyday life (ACSSU004)	<u>Weather</u> <ul style="list-style-type: none"> Weather chart Four seasons 	<p>Reception:</p> <ul style="list-style-type: none"> make observations of familiar objects and materials (Weather assessment p30) explore their properties and behaviour (Weather assessment p30) <p>Year 1:</p> <ul style="list-style-type: none"> describe events that they encounter in their everyday lives (Weather assessment p30) describe changes to things in their local environment (Night and Day assessment p30) share their observations with others <p>Year 2:</p> <ul style="list-style-type: none"> pose questions about their experiences (Anecdotal notes in lessons) record and represent their observations (Weather assessment p30) communicate their ideas to others (Night and Day assessment p30) identify that resources from the Earth are required by living things (Time Assessment p40) describe examples of where science is used in people's daily lives
2	Observable changes occur in the sky and landscape (ACSSU019)	<u>Weather</u> <ul style="list-style-type: none"> Make a rainbow 	
3	Earth's resources, including water, are used in a variety of ways (ACSSU032)	<u>Weather</u> <ul style="list-style-type: none"> Wind catcher 	
4	Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS029) & (ACSIS042)	<u>Time</u> <ul style="list-style-type: none"> Your day <u>Night and Day</u> <ul style="list-style-type: none"> Night and day 	
5	Share observations and ideas (ACSIS012)	<u>Time</u> <ul style="list-style-type: none"> Shadows 	
6	Compare observations with those of others (ACSIS213) & (ACSIS041)	<u>Time</u> <ul style="list-style-type: none"> Shadow clock 	
7	Engage in discussions about observations and use methods such as drawing to represent ideas (ACSIS233)	<u>Time</u> <ul style="list-style-type: none"> Bouncing in time 	
8	Use a range of methods to sort information, including drawings and provided tables (ACSIS027) & (ACSIS040)	<u>Night and Day</u> <ul style="list-style-type: none"> Nocturnal animals 	
9	Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS026) & (ACSIS039)	<u>Night and Day</u> <ul style="list-style-type: none"> The Moon 	
10	Revision		

Weekly Overview – Term 4 – Physical Science

Week	Lesson	Resources	Assessment
1	The way objects move depends on a variety of factors, including their size and shape (ACSSU005)	On the Move <ul style="list-style-type: none"> • How animals move • How people move 	Reception: <ul style="list-style-type: none"> • explore properties and behaviour (On the Move Assessment p70) Year 1: <ul style="list-style-type: none"> • describe the effects of interacting with materials and objects (Push and Pull Assessment p80) • share their observations with others (Anecdotal notes) Year 2: <ul style="list-style-type: none"> • identify that certain materials have different uses (Push and Pull Assessment p80)
2		Push and Pull <ul style="list-style-type: none"> • Push or Pull • Down the ramp 	
3	A push or a pull affects how an object moves or changes shape (ACSSU033)	Push and Pull <ul style="list-style-type: none"> • Push or Pull On the Move <ul style="list-style-type: none"> • How toys move 	
4		Push and Pull <ul style="list-style-type: none"> • Design a toy 	
5	Assessments for Reporting		
6	Sounds are produced by a range of sources and can be sensed (ACSSU020)	Sound <ul style="list-style-type: none"> • Inside and outside • Hearing • 	
7		Sound <ul style="list-style-type: none"> • Sound sort 	
8		Sound <ul style="list-style-type: none"> • Make a kazoo 	
9	Revision	Sound Assessment	
10	Pack Up Week		

Science Understanding

	RECEPTION	YEAR ONE	YEAR TWO
TERM ONE	Topic: Living things/needs/features/growth/change/offspring		
Biological sciences	Living things have basic needs, including food and water (ACSSU002)	Living things have a variety of external features (ACSSU017) Living things live in different places where their needs are met (ACSSU211)	Living things grow, change and have offspring similar to themselves (ACSSU030)
TERM TWO	Topic: Materials - properties/change/combining/mixing		
Chemical sciences	Objects are made of materials that have observable properties (ACSSU003)	Everyday materials can be physically changed in a variety of ways (ACSSU018)	Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)
TERM THREE	Topic: Change – seasons/environment/weather/sky/landscape/water		
Earth and space sciences	Daily and seasonal changes in our environment, including the weather, affect everyday life (ACSSU004)	Observable changes occur in the sky and landscape (ACSSU019)	Earth’s resources, including water, are used in a variety of ways (ACSSU032)
TERM FOUR	Topic: Movement – size/shape/light/sound/push & pull/change/motion		
Physical sciences	The way objects move depends on a variety of factors, including their size and shape (ACSSU005)	Light and sound are produced by a range of sources and can be sensed (ACSSU020)	A push or a pull affects how an object moves or changes shape (ACSSU033)

Science as a Human Endeavour

	RECEPTION	YEAR ONE	YEAR TWO
Nature & development of science			
	Science involves exploring and observing the world using the senses (ACSHE013)	Science involves asking questions about, and describing changes in, objects and events (ACSHE021) & (ACSHE034)	
Use and influence of science			
	-	People use science in their daily lives, including when caring for their environment and living things (ACSHE022) & (ACSHE035)	

Science Inquiry Skills

	RECEPTION	YEAR ONE	YEAR TWO
Questioning and predicting			
	Respond to questions about familiar objects and events (ACSIS014)	Respond to and pose questions, and make predictions about familiar objects and events (ACSIS024) & (ACSIS037)	
Planning and conducting			
	Explore and make observations by using the senses (ACSIS011)	Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (ACSIS025) & (ACSIS038) Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS026) & (ACSIS039)	
Processing and analysing data and information			
	Engage in discussions about observations and use methods such as drawing to represent ideas (ACSIS233)	Use a range of methods to sort information, including drawings and provided tables (ACSIS027) & (ACSIS040) Through discussion, compare observations with predictions (ACSIS212) & (ACSIS214)	
Evaluating			
	-	Compare observations with those of others (ACSIS213) & (ACSIS041)	
Communicating			
	Share observations and ideas (ACSIS012)	Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS029) & (ACSIS042)	

