

SPARKLAB AT QUEENSLAND MUSEUM

Australian Curriculum Links for Years P-2

Semester 2, 2018

SparkLab is a new Sciencentre experience at Queensland Museum. Refer to the [Exhibition Guide](#) for an overview of the interactive exhibits and programs.

SparkLab exhibits and programs link to the Australian National Curriculum specifically in the learning areas of Science, Technologies and Mathematics, and support students to develop their general capabilities in Literacy, Numeracy, and Critical and Creative Thinking.

General capabilities relevant to SparkLab

Direct links

Literacy

Comprehending texts through listening, reading and viewing.

Text, Word and Visual knowledge.

Numeracy

Recognise and using patterns and relationships.

Using spatial reasoning.

Using measurement.

Critical and Creative Thinking

Inquiring – identifying, exploring and organising information and ideas.

Generating ideas, possibilities and actions.

Reflecting on thinking and processes.

Analysing, synthesising and evaluating reasoning and procedures.

Science

	Knowledge and Understanding	Science as a Human Endeavour and Science Inquiry Skills
Prep	<p>Physical sciences (ACSSU005) The way objects move depends on a variety of factors, including their size and shape.</p> <p>Chemical sciences (ACSSU003) Objects are made of materials that have observable properties.</p>	<p>Nature and development of science (ACSHE013) Science involves exploring and observing the world using senses.</p> <p>Questioning and predicting (ACSIS014) Respond to questions about familiar objects and events.</p> <p>Planning and conducting (ACSIS011) Explore and make observations by using the senses.</p> <p>Processing and analysing information (ACSIS011) Engage in discussions about observations.</p>
Year 1	<p>Physical sciences (ACSSU020) Light and sound are produced by a range of sources and can be sensed.</p> <p>Chemical sciences (ACSSU018) Everyday materials can be physically changed in a variety of ways.</p> <p>Earth and space sciences (ACSSU019) Observable changes occur in the sky and landscape.</p>	<p>Nature and development of science (ACSHE021) Science involves asking questions about, and describing changes in, objects and events.</p> <p>Questioning and predicting (ACSIS024) Respond to and pose questions, and make predictions about familiar objects and events.</p> <p>Planning and conducting (ACSIS025) Participate in guided investigations to explore and answer questions, manipulate materials and test ideas.</p> <p>Processing and analysing information (ACSIS212) Through discussion, compare observations with predictions.</p> <p>Evaluating (ACSIS213) Compare observations with those of others.</p>
Year 2	<p>Physical sciences (ACSSU033) A push or a pull affects how an object moves or changes shape.</p>	<p>Nature and development of science (ACSHE034) Science involves asking questions about, and describing changes in, objects and events.</p> <p>Questioning and predicting (ACSIS037) Respond to and pose questions, and make predictions about familiar objects and events.</p> <p>Planning and conducting (ACSIS038) Participate in guide investigations to explore and answer questions, manipulate materials and test ideas.</p> <p>Processing and analysing information (ACSIS040) Through discussion, compare observations with predictions.</p> <p>Evaluating (ACSIS041) Compare observations with those of others.</p>

Technologies – Design and Technologies

	Knowledge and Understanding	Design and Technologies Processes and Production Skills
Prep – Year 2	<p>Explore how technologies use forces to create movement in products (ACTDEK002)*</p> <p>Explore the characteristics and properties of materials and components that are used to produce designed solutions (ACTDEK004)</p>	<p>Explore needs or opportunities for designing, and the technologies needed to realise designed solutions (ACTDEP005)*</p> <p>Use materials, components, tools, equipment and techniques to safely make a designed solution (ACTDEP007)</p>

Mathematics

	Number and Algebra	Measurement and Geometry
Prep – Year 2	<p><u>Number and place value</u></p> <p>Connect number names, numerals and quantities (Prep - ACMNA002)</p> <p>Recognise, model, read, write and order numbers. (Yr 1 - ACMNA013)</p> <p><u>Fractions and decimals</u></p> <p>Recognise and describe one-half as one of two equal parts of a whole (Yr - ACMNA016)</p> <p>Recognise and interpret common uses of halves and quarters of shapes and collections (Yr 2 - ACMNA033)</p>	<p><u>Using units of measurement</u></p> <p>Use direct and indirect comparisons to decide which is longer, heavier or holds more and explain reasoning in everyday language (Prep - ACMMG006)</p> <p>Measure and compare the lengths and capacities of pairs of objects (Yr 1 - ACMMG019)</p> <p>Describe duration using months, weeks, days and hours (Yr 1 - ACMMG021)</p> <p>Compare and order several shapes and objects based on length, area, volume and capacity (Yr 2 - ACMMG037)</p> <p><u>Shape</u></p> <p>Sort, describe and name familiar 2D shapes and 3D objects (Prep - ACMMG009)</p> <p>Recognise and classify familiar 2D shapes and 3D objects using obvious features (Yr 1 - ACMMG022)</p> <p>Describe the features of 3D objects (Yr 2 - ACMMG043)</p>

* Indirect link