

SPARKLAB AT QUEENSLAND MUSEUM

Australian Curriculum Links for Years 7-8

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 Inquiry Skills
Year 7	<p>Physical sciences (ACSSU117) Change to an object's motion is caused by unbalanced forces acting on the object.</p> <p>Earth and space sciences (ACSSU116) Some of Earth's resources are renewable, but others are non-renewable.</p>	<p>Questioning and predicting (AC SIS124) Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge.</p> <p>Planning and conducting (AC SIS126) In fair tests, measure and control variables.</p> <p>Processing and analysing information (AC SIS130) Summarise data and use scientific understandings to identify relationships and draw conclusions.</p> <p>Evaluating (AC SIS131) Reflect on the method used to investigate a question or solve a problem and identify improvements to the method.</p> <p>Communicating (AC SIS133) Communicate ideas, findings and solutions to problems using scientific language.</p>
Year 8	<p>Chemical sciences (ACSSU151) The properties of the different states of matter can be explained in terms of motion and arrangement of particles.</p> <p>Chemical sciences (ACSSU225) Chemical change involves substances reacting to form new substances.</p> <p>Physical sciences (ACSSU155) Energy appears in different forms including kinetic energy, heat and potential energy, and causes change within systems.</p>	<p>Questioning and predicting (AC SIS139) Identify questions and problems that can be investigated scientifically and make predictions based on scientific knowledge.</p> <p>Planning and conducting (AC SIS141) In fair tests, measure and control variables.</p> <p>Processing and analysing information (AC SIS145) Summarise data and use scientific understandings to identify relationships and draw conclusions.</p> <p>Evaluating (AC SIS146) Reflect on the method used to investigate a question or solve a problem and identify improvements to the method.</p> <p>Communicating (AC SIS148) Communicate ideas, findings and solutions to problems using scientific language.</p>

Technologies – Design and Technologies

	Knowledge and Understanding	Design and Technologies Processes and Production Skills
Year 7-8	Analyse ways to produce designed solutions through selecting and combining characteristics and properties of materials, components and equipment (ACTDEK034)*	Generate, develop, test and communicate design ideas, plans and processes for various audiences using appropriate technical terms (ACTDEP036)* Independently develop criteria for success to evaluate design ideas. (ACTDEP038)

* Indirect link