

The Australian Curriculum Science



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Year 2

The *Science Inquiry Skills* and *Science as a Human Endeavour* strands are described across a two-year band. In their planning, schools and teachers refer to the expectations outlined in the Achievement Standards and also to the content of the *Science Understanding* strand for the relevant year level to ensure that these two strands are addressed over the two-year period. The three strands of the curriculum are interrelated and their content is taught in an integrated way. The order and detail in which the content descriptions are organised into teaching/learning programs are decisions to be made by the teacher.

From Foundation to Year 2, students learn that observations can be organised to reveal patterns, and that these patterns can be used to make predictions about phenomena. In Year 2, students describe the components of simple systems, such as stationary objects subjected to pushes or pulls, or combinations of materials, and show how objects and materials interact through direct manipulation. They observe patterns of growth and change in living things, and describe patterns and make predictions. They explore the use of resources from Earth and are introduced to the idea of the flow of matter when considering how water is used. They use counting and informal measurements to make and compare observations and begin to recognise that organising these observations in tables makes it easier to show patterns.

Science Understanding

Biological sciences	Elaborations
<p>Living things grow, change and have offspring similar to themselves (ACSSU030)</p> 	<ul style="list-style-type: none"> representing personal growth and changes from birth recognising that living things have predictable characteristics at different stages of development exploring different characteristics of life stages in animals such as egg, caterpillar and butterfly observing that all animals have offspring, usually with two parents
Chemical sciences	Elaborations
<p>Different materials can be combined, including by mixing, for a particular purpose (ACSSU031)</p> 	<ul style="list-style-type: none"> exploring the local environment to observe a variety of materials, and describing ways in which materials are used investigating the effects of mixing materials together suggesting why different parts of everyday objects such as toys and clothes are made from different materials identifying materials such as paper that can be changed and remade or recycled into new products
Earth and space sciences	Elaborations

Earth's resources, including water, are used in a variety of ways (ACSSU032)



- identifying the Earth's resources including water, soil and minerals, and describing how they are used in the school
- describing how a resource such as water is transferred from its source to its point of use
- considering what might happen to humans if there were a change in a familiar available resource, such as water
- identifying actions at school such as turning off dripping taps, that can conserve resources

Physical sciences

Elaborations

A push or a pull affects how an object moves or changes shape (ACSSU033)



- exploring ways that objects move on land, through water and in the air
- exploring how different strengths of pushes and pulls affect the movement of objects
- identifying toys from different cultures that use the forces of push or pull
- considering the effects of objects being pulled towards the Earth

Science as a Human Endeavour

Nature and development of science

Elaborations

Science involves asking questions about, and describing changes in, objects and events (ACSHE034)



- describing everyday events and experiences and changes in our environment using knowledge of science
- suggesting how everyday items work, using knowledge of forces or materials
- identifying and describing sources of water

Use and influence of science

Elaborations

People use science in their daily lives, including when caring for their environment and living things (ACSHE035)



- monitoring information about the environment and Earth's resources, such as rainfall, water levels and temperature
- finding out about how Aboriginal and Torres Strait Islander people use science to meet their needs, including food supply
- exploring how different cultures have made inks, pigments and paints by mixing materials
- identifying the ways humans manage and protect resources, such as reducing waste and caring for water supplies
- recognising that many living things rely on resources that may be threatened, and that science understanding can contribute to the preservation of such resources

Science Inquiry Skills

Questioning and predicting

Elaborations

Respond to and pose questions, and make predictions about familiar objects and events (AC SIS037)



- using the senses to explore the local environment to pose interesting questions, make inferences and predictions
- thinking about 'What will happen if...?' type questions about everyday objects and events

Planning and conducting

Elaborations

Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (AC SIS038)



- manipulating objects and materials and making observations of the results
- researching with the use of simple information sources
- sorting objects and events based on easily identified characteristics

Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (AC SIS039)



- using units that are familiar to students from home and school, such as cups (cooking), hand spans (length) and walking paces (distance) to make and compare observations

Processing and analysing data and information

Elaborations

Use a range of methods to sort information, including drawings and provided tables (AC SIS040)



- constructing column and picture graphs with teacher guidance to record gathered information
- sorting information in provided tables or graphic organisers

Through discussion, compare observations with predictions (AC SIS214)



- comparing and discussing, with guidance, whether observations were expected

Evaluating

Elaborations

Compare observations with those of others (AC SIS041)



- discussing observations with other students to see similarities and differences in results

Communicating

Elaborations

Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (AC SIS042)



- presenting ideas to other students, both one-to-one and in small groups
- discussing with others what was discovered from an investigation