



## ACT Science Early years of schooling curriculum for Mini Q



Australian Government  
Department of Education,  
Science and Training



### Brief description of Mini Q zones:

**Water Play**—a place to make water flow and work as a team. This area contains stepped water tanks, an Archimedes screw, a pulley system of containers and separate, individual containers. Children can experiment with the properties of water and learn about principles of conservation (water volume) and the permanence of objects.

**Baby Space**—a place to crawl about and explore. This area allows babies to move around, watch other babies and be at eye level with adults to study facial expressions. Baby Space has not been listed in the suggested outcomes below, but children aged up to 12 months benefit from this area.

**Role Play**—a place to shop, work and play. A child-scale street scene with Building Construction Zone, Service Station, Animal Hospital and Bakery that allows children to 'play shop'. Children may serve items, count orders, plan what to build, cooperate with other children, etc. Many items are labelled and adults are encouraged to take part in the role play.

**Sensory Space**—a place to see, hear and feel amazing things. Children can feel different textures, hear unusual sounds and explore special zones with optic fibres and ultraviolet lights.

**Active Play**—a place to balance, navigate and roll around. Balance and crawl spaces encourage children to develop gross and fine motor skills, as well as strengthen their right and left hand body coordination.

**Quiet Space**—a place to rest peacefully after a hard day's play. Adults are encouraged to read library stories to children in this space

**Space Lab**—a place to pretend, predict and explore. Children pretend to be astronauts or space scientists and investigate various workstations that use magnifying glasses, polarised light filters, fluid tubes and measuring scales.

Some zones in Mini Q better satisfy outcomes for certain KLAs.

For example, Quiet Space and Role Play achieve outcomes in English and The Arts KLAs.

Health and physical education KLA outcomes are well catered for in Active Play.

Literacy and numeracy is encouraged in various Mini Q zones, through labelling of items, encouraging children to count or group items and providing resources for carers to read to children.

Science and Technology KLA outcomes are achieved when children engage in Role Play (Building Construction Zone), Sensory Space, Space Lab and Water Play.



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The following Science KLA outcomes demonstrate how certain Mini Q zones can be used to satisfy various outcomes:

Curriculum Framework Statement	Mini Q zone where outcomes can be achieved
<p>Children use skills of observing, measuring, classifying, communicating, inferring and predicting to make sense of their world. Science activities in the early years will enhance the development of these skills. Children acquire vocabulary from others and they communicate through a variety of spoken and visual representations. Children like to build, create, make and solve daily problems, and learn through direct experience, stories, reading, listening and interactions with others. They look, touch, discuss and share their discoveries. In play, children experiment with possibilities and are intrinsically motivated to solve problems. Young children are natural theorists who construct their own knowledge, and often develop their own explanations of how things work. They interpret new information in terms of their prior knowledge and ideas. Their learning experience is enhanced when teachers take account of their ideas, knowledge, concepts and skills.</p>	<p>Active Play Role Play Space Lab Water Play</p>

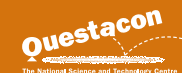
Curriculum Framework Statement	Mini Q zone where outcomes can be achieved
<p><b>Working Scientifically</b></p> <p>At this level, students are encouraged to express their own ideas about why things are as they are, and to give reasons. They make guesses. They listen to other students' explanations and often revise their own. They observe natural phenomena and make arbitrary measurements. They learn to pose questions and plan and carry out their own investigations. They classify and record information. They are developing prediction and hypothesising skills, and the skills of fair testing. At this level, students begin to build a vocabulary of scientific terms, predominantly the names and properties of objects. They begin to develop skills and processes.</p>	<p>Space Lab Water Play</p>
<p>They learn to work scientifically through direct observations. They present their findings in a variety of ways—play, talking, drawing, building and writing.</p>	<p>Space Lab Water Play</p>



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Curriculum Framework Statement	Mini Q zone where outcomes can be achieved
<p><b>Energy and Change</b></p> <p>Students recognise the ways in which energy can be used in their everyday lives. They recognise the purpose of familiar energy sources-the sun for warmth, petrol for transport, food for their bodies. Ways to reduce energy waste in their environment, such as turning off unnecessary lights and appliances and walking short distances rather than using the car, are investigated. Students explore rolling, sliding, spinning, falling, flying and speeding up. They investigate the effect on these motions of the wind, pushing, pulling, striking, gravity, motors and magnets. They begin to recognise the conditions under which common phenomena such as shadows, rainbows, echoes and melting occur.</p> <p>Students are aware of energy transfers and changes around them. Sources of energy in everyday life begin to be identified. The students locate the sources of energy in a variety of devices (batteries in a torch, doll or toy car; the winder in a spring toy).</p>	<p>Role Play Sensory Space Space Lab</p>

Curriculum Framework Statement	Mini Q zone where outcomes can be achieved
<p><b>Life and Living</b></p> <p>Students begin to distinguish between living and non-living things. Through their own observations they discover the existence of living things from the small to the massive. They learn the consequences of neglect of the needs of plants and animals. They know external parts of animals (paws, tail, claws, fur, scales and horns). They can convey the idea that living things change over time, and they begin to understand that living things die.</p>	<p>Role Play (Animal Hospital) Space Lab</p>
<p><b>Natural and Processed Materials</b></p> <p>They can describe substances in terms of the properties of shape, texture, colour, size and mass. They notice behaviour of materials. Liquids such as honey, cream and water, can be poured. Materials are classified according to the criteria of shininess, hardness, softness, roughness, smoothness and roundness. The students notice what happens to substances under different conditions (ice blocks exposed to different temperatures, wood burnt in a fire, metals exposed to the weather). They observe changes caused by melting, rusting, dissolving and heating.</p>	<p>Sensory Space Space Lab Water Play</p>