

Suggested Essential Learning Topics for Years 1-5

This is a guide only based on the Essential Learning requirements of the 'QCARF'. Starlab Education's standard presentations cover the suggested topics listed below. Please advise us of any particular topics to be emphasised. Cosmodome feature are in bold. Please refer to www.starlab.net.au for synopsis. Additional topics not on the suggested topic list may be requested to suit the class interests.

Essential Learning by the end of YEAR 3

Statements	Suggested topics
<ol style="list-style-type: none"> 1. Earth & Space experience patterns & natural cycles of events, including seasons, weather, moon phases, and their affect on living things. 2. Materials of the Earth can be used in various ways. 3. Living things depend upon the environment and each other. 4. Science can impact on people & their environments. 5. Pushes & pulls affect the shape and motion of objects. 	<ul style="list-style-type: none"> • Our closest star gives us light & warmth. • What are stars? What are they made of? • The sun makes shadows. • Why we see the moon & planets. • Our Earth is spinning. • Day & Night. • Why we see different shapes of the moon. • Our solar system • What is Gravity • Challenges of living in space (atmosphere, solar radiation, gravity) • Constellations & planets in tonight's sky. • Stories in our night sky • Signs of the Zodiac • 'Earths Wild Ride' (Cosmodome) • 'Secret of Cardboard Rocket'

Essential Learning by the end of YEAR 5

Statements	Suggested Topics
<ol style="list-style-type: none"> 1. The Earth, solar system, and universe are dynamic systems. 2. Changes to the Earth's surface & atmosphere have identifiable causes including human & natural activity. 3. Forces may act at a distance or may need to be in contact with an object to affect it. 4. Different forms of energy used within a community have different sources. 	<ul style="list-style-type: none"> • Day & Night. • Length of daylight in different places. • Measuring time around the world. • Apparent & True movement. • Reason for Seasons. • Our solar system. • Poles, equator, axis of the Earth. • Solar & Lunar eclipse. • Moon & tides. • Sizes & distances in space. • Challenges of living in space. • The Southern Cross and Sun as a compass. • Constellations & planets in tonight's sky. • 'Oasis in Space' (Cosmodome) • 'Earth's Wild Ride' (Cosmodome) • 'Ice worlds' (Cosmodome)

Suggested Essential Learning Topics for Years 6-9

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Essential Learning by the end of YEAR 7

Statements	Suggested Topics
<ol style="list-style-type: none"> 1. Gravitational attraction between objects in the solar system holds them in fixed orbits and has predictable effects on the earth. 2. Changes to our earth occur over varying time periods and can be interpreted by using geological evidence. 3. The motion of an object changes as a result of the application of opposing or supporting forces. 4. Survival of organisms is dependant on their adaptation to their environment. 	<ul style="list-style-type: none"> • Moon & Tides (gravity). • Our solar system. • Characteristics of planets & stars. • Planetary orbits. • Sizes & distances in space (Au & light years) • Impact craters. • Challenges of living in space. • Reason for seasons. • Apparent & True movement. • Seasonal calendar of stars. • Signs of the Zodiac • Using the Southern Cross and Sun as a compass. • Constellations & planets in tonight's sky. • 'Earth's Wild Ride' (Cosmodome) • 'Oasis in Space' (Cosmodome) • 'Ice Worlds' (Cosmodome)

Essential Learning by the end of YEAR 9

Statements	Suggested Topics
<ol style="list-style-type: none"> 1. Scientific ideas & theories offer explanations about the earth that extend to the origins of the universe. 2. Global patterns of change on earth and in its atmosphere can be predicted and modelled. 3. Geological evidence can be interpreted to provide information about past and present events. 	<ul style="list-style-type: none"> • Describing Stars, galaxies, planets & comets. • Geological features of planets • Requirements for life on other planets • Our expanding universe (Big Bang theory). • Using the Southern Cross and Sun as a compass. • Constellations & planets in tonight's sky. • 'Ice Worlds' • 'Oasis in Space' • 'Origins of Life'