**AUSVELS : Australian SCIENCE Curriculum, F-10:**

**Overarching ideas:** Patterns, order & organization; Form and function; Stability and change; Scale and Measurement; Matter and energy; Systems

There are **three strands** which are to be taught in an integrated way. The order & detail in which content descriptions are organized in to learning programs are decisions to be made by the teacher.

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| **Science Understanding** – content described by year level | **Science as Human Endeavour** – content described in 2 year bands | **Science Inquiry Skills** – content described in 2 year bands |
| **Sub strands:**  Biological sciences  Chemical sciences  Earth and Space sciences  Physical sciences | **Sub strands:**  Nature and development of science  Use and influence of science | **Sub strands:**  Questioning and predicting  Planning and conducting  Processing and analysing data and information  Evaluating  Communicating |

**Year/Level 1 SCIENCE Students:**

* Infer simple cause-and-effect relationships from observations and experiences & begin to link events and phenomena with observable effects
* Observe changes that can be large or small and happen quickly or slowly
* Explore the properties of familiar objects and phenomena, identifying similarities and differences
* Begin to value counting as a means of comparing observations & are introduced to ways of organising observations

\*This document intends to assist teachers in their implementation of the Australian curriculum through AUSVELS– it combines description and elaboration statements. The blue elaborations are examples of how the learning can be achieved; not a list of tasks that have to be done. Teachers are advised to consult the online documentation to clarify further detail for themselves. The ‘AusVELS’ is the official documentation for Victorian schools.

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| **Science understanding:** | **Science as Human Endeavour:** | **Science Inquiry Skills:** |
| **Biological sciences:**  Living things have a variety of external features (ACSSU017)   * recognising common features of animals such as head, legs and wings * describing the use of animal body parts for particular purposes such as moving and feeding * identifying common features of plants such as leaves and roots * describing the use of plant parts for particular purposes such as making food and obtaining water   Living things live in different places where their needs are met (ACSSU211)     * exploring different habitats in the local environment such as the beach, bush and backyard * recognising that different living things live in different places such as land and water * exploring what happens when habitats change and some living things can no longer have their needs met   **Chemical sciences:**  Everyday materials can be physically changed in a variety of ways (ACSSU018)   * predicting and comparing how the shapes of objects made from different materials can be physically changed through actions such as bending, stretching and twisting * exploring how materials such as water, chocolate or play-dough can change when warmed or cooled   **Earth and space sciences:**  Observable changes occur in the sky and landscape (ACSSU019)     * exploring the local environment to identify and describe natural, managed and constructed features * recording short and long term patterns of events that occur on Earth and in the sky, such as the appearance of the moon and stars at night, the weather and the seasons   **Physical sciences:**  Light and sound are produced by a range of sources and can be sensed (ACSSU020)   * recognising that sense are used to learn about the world around us: our eyes to detect light, our ears to detect sound and touch to feel vibrations * identifying the sun as a source of light * recognising that objects can be seen when light from sources is available to illuminate them * exploring different ways to produce sound using familiar objects and actions such as striking, blowing, scarping and scratching * comparing sounds made by musical instruments using characteristics such as loudness, pitch and actions used to make the sound | **Nature & development of Science:**  Science involves asking questions about, and describing changes in, objects and events  (ACSHE021)     * jointly constructing questions about the events and features of the local environment with teacher guidance * recognising that descriptions of what we observe are used by people to help identify change   **Use & influence of science:**  People use science in their daily lives, including when caring for their environment and living things (ACSHE022)     * considering how science is used in activities such as cooking, fishing, transport, sport, medicine and caring for plants and animals * considering that technologies used by Aboriginal and Torres Strait Islander people require an understanding of how materials can be used to make tool and weapons, musical instruments, clothing, cosmetics and artwork * exploring how musical instruments can be used to produce different sounds * comparing how different light sources are used in daily life * identifying ways that science knowledge is used in the care of the local environment such as animals habitats, and suggesting changes to parks and gardens to better meet the needs of native animals | **Questioning & predicting:**  Respond to and pose questions, and make predictions about familiar objects and events (ACSIS024)   * thinking about ‘What will happen if...?’ type questions about everyday objects and events * using the senses to explore the local environment to pose interesting questions, make inferences and predictions   **Planning & conducting:**  Participate in different types of guided investigations to explore and answer questions, such as manipulating materials, testing ideas, and accessing information sources (ACSIS025)   * manipulating objects and materials and making observations of the results * researching ideas collaboratively using big books, web pages and ICT within the classroom * exploring different ways of solving science questions through guided discussion * sorting objects and events based on easily identified characteristics with teacher guidance   Use informal measurements in the collection and recording of observations, with the assistance of digital technologies as appropriate (ACSIS026)   * 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 record observations with teacher guidance   **Processing & analyzing data & information:**  Use a range of methods to sort information, including drawings and provided tables (ACSIS027)   * using matching activities, including identifying similar things, odd-one-out and opposites * exploring ways of recording and sharing information through class discussion * jointly constructing simple column graphs and picture graphs to represent class investigations   Through discussion, compare observations with predictions (ACSIS212)   * discussing original predictions and, with guidance, comparing these to their observations   **Evaluating:**  Compare observations with those of others (ACSIS213)   * discussing observations with other students to see similarities and differences in their observations   **Communicating:**  Represent and communicate observations and ideas in a variety of ways such as oral and written language, drawing and role play (ACSIS029)   * discussing or representing what was discovered in an investigation * engaging in whole class or guided small group discussions to share observations and ideas |
| **Level 1 Achievement Standard:**  By the end of Level 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They identify a range of habitats. They describe changes to things in their local environment and suggest how science helps people care for environments.  Students make predictions, and investigate everyday phenomena. They follow instructions to record and sort their observations and share their observations with others. | | |

Cross-curriculum priorities to be included in all learning areas: Aboriginal and Torres Strait Islander histories and cultures (); Asia and Australia’s engagement with Australia (ã ); Sustainability ()

Reference : <http://ausvels.vcaa.vic.edu.au/> This grid is an adaption of the information from the VCAA site to create a visual representation to assist teachers.