AusVELS Mathematics Foundation Level

Understanding includes connecting names, numerals and quantities
Fluency includes counting numbers in sequences readily, continuing patterns, and comparing the lengths of objects directly
Problem Solving includes using materials to model authentic problems, sorting objects, using familiar counting sequences to solve unfamiliar problems, and discussing the reasonableness of the answer
Reasoning includes explaining comparisons of quantities, creating patterns, and explaining processes for indirect comparison of length

**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.

Number & Algebra:

Number & place value:

Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point (ACMNA001)

- reading stories from other cultures featuring counting in sequence to assist students to recognise ways of counting in local languages and across cultures
- identifying the number words in sequence, backwards and forwards, and reasoning with the number sequences, establishing the language on which subsequent counting experiences can be built
- developing fluency with forwards and backwards counting in meaningful contexts, including stories and rhymes
- understanding that numbers are said in a particular order and there are patterns in the way we say them

Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond (ACMNA002)

- understanding that each object must be counted only once, that the arrangement of objects does not affect how many there are, and that the last number counted answers the 'how many' question
- using scenarios to help students recognise that other cultures count in a variety of ways, such as by placing one pebble in a bag to represent one object (for example to count the number of cattle).

Subitise small collections of objects (ACMNA003)

- using subitising as the basis for ordering and comparing collections of numbers

Compare, order and make correspondences between collections, initially to 20, and explain reasoning (ACMNA289)

- comparing and ordering items of like and unlike characteristics using the words 'more' , 'less', 'same as' and 'not the same as' and giving reasons for these answers
- understanding and using terms such as 'first' and 'second' to indicate ordinal position in a sequence.
- using objects which are personally and culturally relevant to students

Represent practical situations to model addition and sharing (ACMNA004)

- using a range of practical strategies for adding and subtracting small groups of numbers, such as visual displays or concrete materials
- using Aboriginal and Torres Strait Islander methods of adding and subtracting including spatial patterns and reasoning

Patterns & algebra:

Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings (ACMNA005)

- observing natural patterns in the world around us
- creating and describing patterns using materials, sounds, movements or drawings

Measurement & Geometry:

Using units of measurement:

Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language (ACMMG006)

- comparing objects directly, by placing one object against another to determine which is longer or by pouring from one container into the other to see which one holds more
- using suitable language associated with measurement attributes, such as 'tall' and 'taller', 'heavy' and 'heavier', 'holds more' and 'holds less

Compare and order the duration of events using the everyday language of time (ACMMG007)

- knowing and identifying the days of the week and linking specific days to familiar events
- sequencing familiar events in time order'

Connect days of the week to familiar events and actions (ACMMG008)

- choosing events and actions that make connections with students' everyday family routines

Shape:

Sort, describe and name familiar two dimensional shapes and three dimensional objects in the environment (ACMMG009)

- sorting and describing squares, circles, triangles, rectangles, spheres and cubes

Location & transformation:

Describe position and movement (ACMMG010)

- interpreting the everyday language of location and direction, such as 'between', 'near', 'next to', 'forwards', 'towards'
- following and giving simple directions to guide a friend around an obstacle path and vice versa

Statistics & Probability:

Data representation & interpretation:

Answer yes/no questions to collect information (ACMSP011)

- posing questions about themselves and familiar objects and events
- representing responses to questions using simple displays, including grouping students according to their answers
- using data displays to answer simple questions such as 'how many students answered "yes" to having brown hair?'

Foundation Level achievement standard

Number and Algebra
Students connect number names and numerals with sets of up to 20 elements, estimate the size of these sets, and use counting strategies to solve problems that involve comparing, combining and separating these sets. They match individual objects with counting sequences up to and back from 20. Students order the first 10 elements of a set.

Measurement and Geometry
Students identify measurement attributes in practical situations and compare lengths, masses and capacities of familiar objects. They order events, explain their duration, and match days of the week to familiar events. Students identify simple shapes in their environment and sort shapes by their common and distinctive features. They use simple statements and gestures to describe location.

Statistics and Probability
Students sort familiar categorical data into sets and use these to answer yes/no questions and make simple true/false statements about the data.

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 (); 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.