Linking NUMERO to the Victorian Curriculum

NUMERO plays an important role in developing numeracy, mathematics and proficiency skills, relating to the Victorian Curriculum. The table below provides links to the curriculum.

NUMERO particularly supports the Proficiency strands of the Victorian Curriculum requiring students to use each of Understanding, Fluency, Problem Solving and Reasoning.

The proficiencies describe the actions in which students can engage when learning and using the content of mathematics.

> Understanding refers to how students build a knowledge of adaptable and transferable mathematical concepts and structures, through making connections between related concepts and then applying to develop new ideas. It is the linking of the how and why of mathematics. It is shown when students can describe their mathematical thinking and when they can interpret mathematical information.
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> Fluency refers to how students develop skills in choosing appropriate procedures; carrying out procedures flexibly, accurately, efficiently and appropriately; and recalling factual knowledge and concepts readily. It is shown when students can choose appropriate methods and calculate answers.
>
> Problem solving refers to how students develop the ability to make choices, interpret, formulate, model and investigate problem situations, and communicate solutions effectively in familiar and unfamiliar situations. It is shown when students can use mathematics, plan investigations and verify answers.
>
> Reasoning refers to how students develop capacity for logical thought and actions, such as analysing, proving, evaluating, explaining, inferring, justifying and generalising. It is shown when students can explain their thinking, justify the use of strategies and responses, and then adapt knowledge to unknown situations.

The table below provides links to the curriculum.

NUMERO® links to the Victorian Curriculum

Year Level	Australian Curriculum Code	Australian Curriculum Description
Foundation	VCMNA069	Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point
	VCMNA070	Connect number names, numerals and quantities, including zero, initially up to 10 and then beyond
	VCMNA072	Compare, order and make correspondences between collections, initially to 20, and explain reasoning
1	VCMNA086	Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero
	VCMNA089	Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts
2	VCMNA103	Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and tens from any starting point, then moving to other sequences
	VCMNA106	Explore the connection between addition and subtraction
	VCMNA107	Solve simple addition and subtraction problems using a range of efficient mental and written strategies
	VCMNA108	Recognise and represent multiplication as repeated addition, groups and arrays
3	VCMNA132	Recognise and explain the connection between addition and subtraction
	VCMNA133	Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation
	VCMNA134	Recall multiplication facts of two, three, five and ten and related division facts

	VCMNA135	Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies
4	VCMNA155	Recall multiplication facts up to 10 × 10 and related division facts
	VCMNA156	Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder
5	VCMNA181	Identify and describe factors and multiples of whole numbers and use them to solve problems
	VCMNA183	Solve problems involving multiplication of large numbers by one- or two-digit numbers using efficient mental, written strategies and appropriate digital technologies
6	VCMNA208	Identify and describe properties of prime, composite, square and triangular numbers
	VCMNA209	Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers and make estimates for these computations
	VCMNA213	Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies
	VCMNA217	Make connections between equivalent fractions, decimals and percentages
7	VCMNA239	Investigate and use square roots of perfect square numbers
	VCMNA248	Find percentages of quantities and express one quantity as a percentage of another, with and without digital technologies.

References:

Australian Curriculum Assessment and Reporting Authority (2018). Mathematics proficiencies.
Accessed from https://www.australiancurriculum.edu.au/resources/mathematics-proficiencies/

Victorian Curriculum and Assessment Authority (2019). Learning in mathematics.
Accessed from http://victoriancurriculum.vcaa.vic.edu.au/mathematics/introduction/learning-in-mathematics