Video transcript

Foundational skills – Numeracy

Hello and welcome.

The foundational skill of numeracy is fundamental to a student's ability to learn at school and to engage productively in society. In the Victorian Curriculum F-10, students become numerate as they develop the knowledge and skills to use mathematics confidently across the curriculum and in their lives more broadly.

The aim of this video is to familiarise you with the Numeracy foundational skill, which offers a comprehensive view of numeracy within the Victorian Curriculum F–10 Version 2.0.

Let’s begin by discussing what numeracy is. Numeracy is comprised of knowledge and skills developed through learning in mathematics, together with behaviours and dispositions that students draw on in order to use mathematics effectively in a wide range of academic and social situations. It involves students recognising and understanding the role of mathematics in the world and having dispositions and capacities to use mathematical knowledge and skills purposefully. To be considered numerate, it is expected that students will need to know mathematics and, importantly, be able to draw on mathematics within a real-world context.

Let’s turn our attention to the features of the Numeracy foundational skill. Numeracy is one of 3 foundational skills within the Victorian Curriculum F–10 Version 2.0. It is not a curriculum in and of itself - it is a curriculum component. The development of numeracy as a foundational skill is enabled by the achievement of the knowledge and skills located in the Victorian Curriculum F–10 Mathematics and further developed and applied in other learning areas and capabilities. It is presented as a progression of student learning that describes the learning pathways along which students typically progress, regardless of age or grade.

The Numeracy progression describes observable indicators of increasing complexity in the understanding of and skills in key numeracy concepts. By providing a comprehensive view of numeracy learning, the Numeracy progression gives teachers a conceptual tool that can assist them to develop targeted teaching and learning programs for students who are working at, above or towards the curriculum-level expectation.

The knowledge and skills in the Numeracy foundational skill are acquired through the learning of the Mathematics curriculum, with the majority of students developing their numeracy skills as they progress through the levels of the Mathematics curriculum.

Students who need additional support in acquiring numeracy skills should be supported across the curriculum, as well as within the mathematics classroom. Teachers across all curriculum areas can use the indicators of numeracy development in the Numeracy foundational skill, and can modify teaching and learning in line with this information to scaffold learning for students.

Numeracy is foundational to student learning across the curriculum, and teachers of all learning area disciplines play an important role in developing the numeracy knowledge and skills of their students.

Now let’s talk about the structure of the Numeracy foundational skill. The Numeracy foundational skill is organised into 3 elements: Number sense and algebra, Measurement and geometry, and Statistics and probability.

Each element includes sub-elements that represent evidence-based aspects of numeracy development. The sub-elements are organised into progression levels. All progression levels are flexible with no specific timeframe for achievement, as they reflect the unique pace that each student may apply across the curriculum. The progression levels may span across multiple levels of the curriculum. It is important to note that students may demonstrate skill across more than one progression level, and that the levels in each sub-element are discrete and not designed to align across sub-elements.

The Number sense and algebra element includes 8 sub-elements: Number and place value, Counting processes, Additive strategies, Multiplicative strategies, Interpreting fractions, Proportional thinking, Number patterns and algebraic thinking, and Understanding money.

The Number sense and algebra element has links to all curriculum areas across the Victorian Curriculum F–10 Version 2.0. For example, the Economics and Business curriculum provides real-life contexts for students to apply their knowledge and skills relating to understanding money. Through learning about consumer and financial literacy, teachers can provide opportunities for students to engage with the numeracy skills related to this content in their teaching and learning programs.

Within the Health and Physical Education curriculum, students develop their numeracy skills in counting processes, including counting, scorekeeping, calculating averages, percentages, and statistics.

The Measurement and geometry element includes 4 sub-elements: Understanding units of measurement, Understanding geometric properties, Positioning and locating, and Measuring time. Opportunities for students to apply the knowledge and skills of the Measurement and geometry element of the Numeracy foundational skill are present across the learning areas and the levels of the Victorian Curriculum F–10.

Within the Geography curriculum, teachers can provide authentic contexts for students to apply their knowledge and skills of the Positioning and locating sub-element through both the Geographical Knowledge and Understanding, and Geographical Skills strands. In Geography, students from Foundation to Level 10 learn to represent and locate information on maps, beginning with pictorial maps and increasing in complexity to maps that conform to cartographic conventions or are constructed using geospatial technologies.

In the History curriculum, students apply their knowledge of time from Foundation to Level 10, beginning by sequencing events chronologically. As students progress through the bands of the History curriculum, they describe and then explain continuity and change and causes and consequences. This content is directly linked to the sub-element Measuring time within the Numeracy foundational skill.

The Statistics and probability element includes 2 sub-elements: Understanding chance, and Interpreting and representing data. Links to the Statistics and probability element of the Numeracy foundational skill can be found throughout the Victorian Curriculum F–10 Version 2.0. For example, in the Science curriculum, students are expected to learn how to record and evaluate observations within the Science Inquiry strand. Throughout the Science curriculum, teachers can plan for opportunities for students to apply their numeracy knowledge and skills in interpreting and representing data from Foundation to Level 10 within the context of the science classroom.

Numeracy is fundamental to a student’s ability to learn at school, as well as to engage productively in society. Teachers and schools can use the Numeracy foundational skill to support the development of targeted teaching and learning programs, and set clearer learning goals for individual students. They can also use the Numeracy progressions to establish which numeracy skills a student can draw on, identify any gaps in students' numeracy skills and knowledge, and plan for the next steps to progress learning in specific aspects of numeracy across the curriculum.

For more information, I encourage you to explore the Victorian Curriculum F–10 website, which provides easy access to the curriculum, including the Numeracy foundational skill, and all its supporting resources.

Thank you for watching.