

Quick reference guide

Adapting Mastery in Mathematics materials

The Mastery in Mathematics lesson resources have been developed to provide support for teachers and schools teaching Year 7 and 8 mathematics. Curriculum maps and lesson resources have been developed in alignment with the Australian Curriculum Version 9.0, the new NSW Syllabus, and the Victorian Curriculum Version 2.0, providing teachers and school leaders with the confidence that all aspects of the curriculum are addressed. A key consideration in developing the materials was to ensure schools and teachers retain autonomy to tailor curriculum implementation to meet the individual and local needs of students. Below are some ways in which schools have adjusted Mastery in Mathematics materials.

Adapting the unit sequence

Teachers may choose to reorder units to better suit their students. Although the resources are developed to build knowledge and skill over time, there is some flexibility in how they are scheduled.

The precedence diagram shows the concept dependencies that exist between units, informing decisions about how units could be resequenced while still taking prior learning into account.

Additionally, teachers could choose to use a smaller number of units to supplement existing teaching materials in their school.



Year 7				
Term 1				
Unit 1 7N01A Integers 5 Lessons				
Curriculum Strand	Unit Objectives	Prerequisite units	Succeeding units	Term
Number	Define, represent on number lines and Cartesian planes using a variety of scales on the axes, compare and order, add and subtract integers, evaluate expressions involving combinations of addition and subtraction of integers including the use of brackets and consideration of the field axioms for addition (associative, commutative, identity, inverse).	N/A	7N02A	1
Lesson	Lesson Title	Learning Intention	AC9 Codes	
1	Defining, representing, comparing and ordering integers	We are learning to identify, describe, and represent integers on number lines and compare and order integers.	AC9M7N07, AC9M6N01	
2	Adding integers	We are learning to add integers.	AC9M7N07	
3	Subtracting integers	We are learning to subtract integers.	AC9M7N07	
4	The Cartesian plane	We are learning to become familiar with the Cartesian coordinate system, translate points on a Cartesian plane, and describe their relative positions in terms of translations.	AC9M6N01, AC9M6SP02	
5	Combinations of adding and subtracting integers	We are learning to evaluate expressions involving adding and subtracting integers.	AC9M7N07	

These materials have been made available to the public under a Creative Commons Attribution 4.0 International License (https://creativecommons.org/licenses/by/4.0/)

Adapting the lesson sequence

The scope and sequence document shows the order of lessons continued within each unit. Lessons can be reordered, added in or removed from the sequence.



Quick reference guide

Adapting Mastery in Mathematics materials

Adapting lesson elements



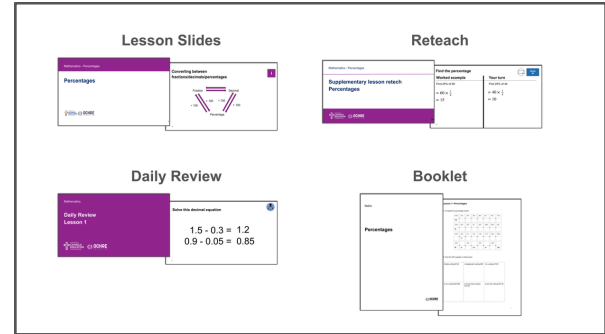
Each set of lesson resources comprises a daily review deck, a lesson slide deck, a reteach deck and an associated booklet. Some schools choose to use parts of the lesson resource sets, and not others.



For example, the daily review deck could be used to support retrieval of concepts across the course of the year, while materials from other sources were used for general class teaching.



Alternatively, the lesson slide deck could be used to support teaching concepts, and then a textbook could be used for student practice in place of the booklet.



Order of operations overview

The order that we evaluate problems will determine the solution. The order is defined by the field axioms. The order of evaluation is:

1. Evaluate groupings

Brackets, Fraction Bars, Exponents

2. Evaluate multiplication and division

3. Evaluate addition and subtraction

Adapting lesson slide decks and elements



All of the lesson resources are fully adaptable and editable. Many teachers download a copy of the materials, and then adjust the slides.



Possible adjustments include replacing sections of the lesson with other activities that have been useful in the past, hiding some slides because students already have a strong knowledge of that topic, or changing individual questions or activities.

Simplifying fractions

Answer TRUE or FALSE to these questions.

1. $\frac{18}{24}$ in lowest terms is $\frac{3}{4}$ **TRUE**

2. $\frac{15}{16}$ can be simplified to $\frac{5}{4}$ **FALSE**

Classroom implementation

Although the lesson materials are provided in slide format, some teachers will not use the slides in the class, preferring to work through the concepts using other methods. In these cases, teachers use the information and tasks described in the slides as inspiration for their teaching without using a data projector or IWB.

