Using Maths Aotearoa and Wilkie Way to deliver the refreshed New Zealand Curriculum

Maths Aotearoa Book 4A provides a range of learning opportunities building onto knowledge and concepts developed in year 6. These learning opportunities enable students to achieve the outcomes expected during year 7. The teacher book also provides links to further learning opportunites in the MOE Figure It Out Series available in all schools.
Maths Aotearoa teacher books and student books are available from edify.co.nz
Wilkie Way members also have access to Professional Resources on the teaching of measurement and word problems using measurement contexts.

Phase 3: Year 7

Understand: (big ideas)	Do (practices)
As students build knowledge through their use of the mathematical and statistical processes, they begin to understand: • Patterns and variation • Logic and reasoning • Visualisation and application	Students will have learning opportunities to: • Investigate situations • Represent situations • Connect situations • Generalise findings • Explain and justify findings

Know: Context of Measurement

Measuring	Perimeter, area & volume
Estimate and then measure length, area, volume, capacity, mass, temperature, data storage, time and angle, using appropriate units Select and use appropriate base measures (litre, gram, metre) within the metric system, along with a prefix (kilo-, centi-) to show the size of the unit. Convert between common metric units for length, mass and capacity and use decimals to express parts of a unit. Find speed given distance and time Read, interpret and use timetables and charts that present information about duration. Convert between units of time and solve duration problems that involve fractions of time.	Calculate the perimeter and area of composite shapes composed on triangles and rectangles.

Maths Literacy Development

• Confidently use specialist vocabulary associated with measurement. - see vocabulary list in the curriculum document
• Confidently read & understand math texts involving measurement language and concepts
• Understand the meaning of prefixes using in measurement units

Concepts being developed	Key knowledge being developed
• Understand the relationship between standard units of measure and use to convert fractions to whole numbers and vice versa • Understand time is not based on powers of ten • Understand the zero point for measuring time is determined by what needs measuring • Understand the degree of accuracy of measure is dependent on the context in which the measurement is to be used. • Understand any point on a scale can be used as a zero point	• Know the base metric units and the prefixes of other units describe the relationship to the base unit • Know shapes can be decomposed or recomposed to help find perimeters, areas and volumes

Maths Aotearoa Book 4A	Support Material available from Wilkie Way website wilkieway.co.nz: membership area (subscription)
Unit 4: Chapter 14 Lines and Angles *This chapter sits under the unit on Geometric Properties as angles also are part of describing and defining shapes as well as used in describing position and orientation.* • Use the language of angles- acute, obtuse, reflex • Use the language of straight lines - vertical, horizontal, diagonal, parallel, perpendicular, intersection • Draw conclusions about angles at an intersection • Use a protractor to measure angles accurately	**Teacher Professional Resources:** **Curriculum Knowledge: Measurement** • Pocket Guide: Using Standard Units of Measure • Measurement Progressions
Unit 7 Measurement **Chapter 18 Mass** • Estimate mass in relation to a fixed mass • Convert between grams and kilograms choosing to work with decimal numbers or whole number • Solve problems in the context of mass • Read a variety of scales **Chapter 19 Length** • Use any point on a ruler as a zero point • Convert between units of linear measure • Solve problems involving conversion between units **Chapter 20 Capacity, Area and Volume** • Consider all attributes of an object that could be measured • Use side measures to calculate perimeter, area and volume • Convert between units of measure **Chapter 21 Measuring Time** • Convert a.m. and p.m. times to 24 hour clock • Calculate difference between times • Solve problems involving time • Read a simple timetable	**Student Resources:** Measurement problems