# Australian Curriculum
## Mathematics Achievement Standards
## Aligned to Math-U-See Scope and Sequence

**Aim**
To provide teachers with a set of Achievement Standards based on the Australian Curriculum that align to the Math-U-See program. These can be used for formative and summative assessment.

**Achievement Standards**
The Australian Curriculum Achievement Standards have been sequenced to align to the content of the Math-U- See scope and sequence (meaning what topics are covered in each year level).

**Assessment**
Teachers assess students on the Math-U-See content taught using the following Achievement Standards.

**Code**
The school developed codes that have been assigned to each phrase of the Australian Curriculum Mathematics Achievement Standards Years F-6.
The code identifies: Subject, Strand, Year level and where the phase is located in the Australian Curriculum Achievement Standard

*Example:*
MNA.3.2 : This phase comes from the Australian Curriculum  Achievement Standard in  **M**aths - **N**umber & **A**lgebra - Year **3** -Phase **2**

## MUS – PRIMER LEVEL

| Year Foundation Mathematics | |
|---|---|
| Code | Achievement Standard |
| Number and Algebra | MNA.F.1 Students make connections between number names, numerals and quantities up to 10 |
| | MNA.1.3 They recognise Australian coins according to their value |
| | MNA.F.6 Students count to and from 20 and order small collections |
| Measurement and Geometry | MMG.F.2 They compare objects using mass, length and capacity |
| | MMG.F.7 They group objects based on common characteristics and sort shapes and objects |
| | MMG.1.12 They tell time to the half-hour |
| Statistics and Probability | |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS |
| | MMG.F.3 Students connect events and the days of the week |
| | MMG.F.4 They explain the order and duration of events |
| | MMG.F.5 They use appropriate language to describe location |
| | MSP.F.8 Students answer simple questions to collect information and make simple inferences |

## MUS - ALPHA LEVEL

| Year 1 Mathematics | |
|---|---|
| Code | Achievement Standard |
| Number and Algebra | MNA.1.1 Students describe number sequences resulting from skip counting by 2s, 5s and 10s MNA.1.7 Students count to and from 100 and locate numbers on a number line |
| | MNA.1.8a They carry out simple additions and subtractions using counting strategies |
| | MNA.1.8b They carry out simple additions and subtractions using counting strategies |
| | MNA.1.9 They partition numbers using place value |
| Measurement and Geometry | MMG.1.5a They describe two-dimensional shapes and three-dimensional objects |
| | MMG.1.5b They describe two-dimensional shapes and three-dimensional objects |
| Statistics and Probability | |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS |
| | MMG.1.13 They use the language of direction to move from place to place |
| | MSP.1.6 Students describe data displays |
| | MSP.1.14 Students classify outcomes of simple familiar events |
| | MSP.1.15a They collect data by asking questions, draw simple data displays and make simple inferences |
| | MSP.1.15b They collect data by asking questions, draw simple data displays and make simple inferences |
| | MSP.1.15c They collect data by asking questions, draw simple data displays and make simple inferences |

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## MUS - BETA LEVEL

| Year 2 Mathematics | |
|---|---|
| **Code** | **Achievement Standard** |
| Number and Algebra | MNA.1.10a They continue simple patterns involving numbers<br>MNA.1.10b They continue simple patterns involving objects<br>MNA.2.1 Students recognise increasing and decreasing number sequences involving 2s, 3s and 5s MNA.2.3 They associate collections of Australian coins with their value<br>MNA.2.4 Students identify the missing element in a number sequence<br>MNA.2.8 Students count to and from 1000<br>MNA.2.9 They perform simple addition and subtraction calculations using a range of strategies MNA.3.8 Students count to and from 10 000<br>MNA.3.9 They classify numbers as either odd or even<br>MNA.3.11 Students correctly count out change from financial transactions |
| Measurement and Geometry | MMG.1.4 Students explain time durations<br>MMG.1.11a Students order objects based on lengths using informal units<br>MMG.1.11b Students order objects based on capacities using informal units<br>MMG.2.12a They tell time to the quarter-hour<br>MMG.2.12b They use a calendar to identify the date and the months included in seasons<br>MMG.3.14 They tell time to the nearest minute<br>MMG.4.16 They convert between units of time |
| Statistics and Probability | MSP.2.15 Students collect, organise and represent data to make simple inferences<br>MSP.3.7 They interpret and compare data displays<br>MSP.3.17 They conduct simple data investigations for categorical variables |
| Gaps to be filled with other resources | Gaps<br>MMG.2.5 Students recognise the features of three-dimensional objects<br>MMG.2.6 They interpret simple maps of familiar locations<br>MMG.2.7 They explain the effects of one-step transformations. Students make sense of collected information<br>MMG.2.11 Students order shapes and objects using informal units<br>MSP.2.14 They describe outcomes for everyday events |

## MUS - GAMMA LEVEL

| Year 3 Mathematics | |
|---|---|
| **Code** | **Achievement Standard** |
| Number and Algebra | MNA.2.2 They represent multiplication and division by grouping into sets<br>MNA.3.1a Students recognise the connection between addition and subtraction<br>MNA.3.1b Students solve problems using efficient strategies for multiplication MNA.3.3 They represent money values in various ways<br>MNA.3.12 They continue number patterns involving addition and subtraction<br>MNA.4.5 They describe number patterns resulting from multiplication<br>MNA.4.11 Students use the properties of odd and even numbers<br>MNA.5.2 They check the reasonableness of answers using estimation and rounding |
| Measurement and Geometry | MMG.2.13 They draw two-dimensional shapes<br>MMG.3.10a They recall addition facts for single-digit numbers<br>MMG.3.10b They recall multiplication facts for single-digit numbers<br>MMG.3.13 Students use metric units for length, mass and capacity<br>MMG.4.6 Students compare areas of regular and irregular shapes using informal units<br>MMG.4.14 They continue number sequences involving multiples of single digit numbers |
| Statistics and Probability | |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS<br>MMG.3.4 Students identify symmetry in the environment<br>MMG.3.5 They match positions on maps with given information<br>MMG.3.15 Students make models of three-dimensional objects<br>MSP.3.16 Students conduct chance experiments and list possible outcomes |

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## MUS - DELTA LEVEL

| Year 4 Mathematics | |
|---|---|
| **Code** | **Achievement Standard** |
| Number and Algebra | MNA.1.2 They identify representations of one half |
| | MNA.2.10 They divide collections and shapes into halves, quarters and eighths |
| | MNA.3.2 They model and represent unit fractions |
| | MNA.4.1a Students choose appropriate strategies for calculations involving multiplication |
| | MNA.4.1b Students choose appropriate strategies for calculations involving division |
| | MNA.4.12 They recall multiplication facts to 10 x 10 and related division facts |
| | MNA.4.13 Students locate familiar fractions on a number line |
| | MNA.5.1 Students solve simple problems involving the four operations using a range of strategies |
| | MNA.5.4 They identify and explain strategies for finding unknown quantities in number sentences involving the four operations |
| | MNA.6.3 They solve problems involving all four operations with whole numbers |
| Measurement and Geometry | |
| Statistics and Probability | |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS |
| | MNA.4.9 Students identify dependent and independent events |
| | MMG.4.7 They solve problems involving time duration |
| | MMG.4.8 They interpret information contained in maps |
| | MMG.4.17 Students create symmetrical shapes and patterns |
| | MSP.4.10 They describe different methods for data collection and representation, and evaluate their effectiveness |
| | MSP.4.20 They construct data displays from given or collected data |

## MUS - EPSILON LEVEL

| Year 5 Mathematics | |
|---|---|
| **Code** | **Achievement Standard** |
| Number and Algebra | MNA.4.2 They recognise common equivalent fractions in familiar contexts and make connections between fraction and decimal notations up to two decimal places |
| | MNA.4.4 They identify and explain strategies for finding unknown quantities in number sentences |
| | MNA.5.3 Students identify and describe factors and multiples |
| | MNA.5.9 Students order decimals and unit fractions and locate them on number lines |
| | MNA.5.10 They add and subtract fractions with the same denominator |
| | MNA.6.4 Students connect fractions, decimals and percentages as different representations of the same number |
| Measurement and Geometry | MMG.4.15 Students use scaled instruments to measure temperatures, lengths, shapes and objects |
| Statistics and Probability | |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS |
| | MNA.5.5 They explain plans for simple budgets |
| | MMG.5.6 Students connect three-dimensional objects with their two-dimensional representations |
| | MMG.5.7 They describe transformations of two-dimensional shapes and identify line and rotational symmetry |
| | MMG.5.12 They use appropriate units of measurement for length, area, volume, capacity and mass, and calculate perimeter and area of rectangles |
| | MMG.5.13 They convert between 12- and 24-hour time |
| | MMG.5.14 Students use a grid reference system to locate landmarks |
| | MSP.5.17 Students pose questions to gather data, and construct data displays appropriate for the data |

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## MUS - ZETA LEVEL

| Year 6 Mathematics | |
|---|---|
| **Code** | **Achievement Standard** |
| Number and Algebra | MNA.4.3 Students solve simple purchasing problems |
| | MNA.5.11 Students continue patterns by adding and subtracting fractions and decimals |
| | MNA.6.1 Students recognise the properties of prime, composite, square and triangular numbers |
| | MNA.6.2 They describe the use of integers in everyday contexts |
| | MNA.6.5 They solve problems involving the addition and subtraction of related fractions |
| | MNA.6.6 Students make connections between the powers of 10 and the multiplication and division of decimals |
| | MNA.6.7 They describe rules used in sequences involving whole numbers, fractions and decimals |
| | MNA.6.16 Students locate fractions and integers on a number line |
| | MNA.6.17 They calculate a simple fraction of a quantity |
| | MNA.6.18 They add, subtract and multiply decimals and divide decimals where the result is rational |
| | MNA.6.19 Students calculate common percentage discounts on sale items |
| Measurement and Geometry | MMG.3.6 Students recognise angles in real situations |
| | MMG.4.18 They classify angles in relation to a right angle |
| | MMG.5.15 They measure and construct different angles |
| | MMG.6.8 Students connect decimal representations to the metric system and choose appropriate units of measurement to perform a calculation |
| | MMG.6.9 They make connections between capacity and volume. They solve problems involving length and area |
| | MMG.6.12 They solve problems using the properties of angles |
| Statistics and Probability | MSP.4.19 Students list the probabilities of everyday events |
| | MSP.5.16 Students list outcomes of chance experiments with equally likely outcomes and assign probabilities between 0 and 1 |
| | MSP.6.13 Students compare observed and expected frequencies |
| | MSP.6.14 They interpret and compare a variety of data displays including those displays for two categorical variables MSP.6.15 They interpret secondary data displayed in the media |
| | MSP.6.23 Students describe probabilities using simple fractions, decimals and percentages |
| Gaps to be filled with other resources | Achievement Standard not covered by MUS |
| | MNA.6.10 They interpret timetables |
| | MNA.6.20 They write correct number sentences using brackets and order of operations |
| | MMG.6.11 Students describe combinations of transformations |
| | MMG.6.21 Students locate an ordered pair in any one of the four quadrants on the Cartesian plane |
| | MMG.6.22 They construct simple prisms and pyramids |