


The Australian Curriculum

Subjects	Mathematics
Year levels	Year 4

Year 4 Content Descriptions

Number and Algebra

Number and place value


Investigate and use the properties of odd and even numbers ([ACMNA071 - Scootle](#) )



Elaborations

using the four operations with pairs of odd or even numbers or one odd and one even number, then using the relationships established to check the accuracy of calculations




Recognise, represent and order numbers to at least tens of thousands ([ACMNA072 - Scootle](#) )



Elaborations

reproducing five-digit numbers in words using their numerical representations, and vice versa



Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems ([ACMNA073 - Scootle](#) )



Elaborations

recognising and demonstrating that the place-value pattern is built on the operations of multiplication or division of tens



Investigate number sequences involving multiples of 3, 4, 6, 7, 8, and 9 ([ACMNA074 - Scootle](#) )



Elaborations

recognising that number sequences can be extended indefinitely, and determining any patterns in the sequences

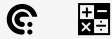



Recall multiplication facts up to 10×10 and related division facts ([ACMNA075 - Scootle](#) )



Elaborations

using known multiplication facts to calculate related division facts



Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder ([ACMNA076 - Scootle](#) )




Elaborations

using known facts and strategies, such as commutativity, doubling and halving for multiplication, and connecting division to multiplication when there is no remainder



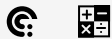
Fractions and decimals


Investigate equivalent fractions used in contexts ([ACMNA077 - Scootle](#) )



Elaborations

exploring the relationship between families of fractions (halves, quarters and eighths or thirds and sixths) by folding a series of paper strips to construct a fraction wall

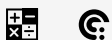


Count by quarters halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line ([ACMNA078 - Scootle](#) )




Elaborations

converting mixed numbers to improper fractions and vice versa



investigating the use of fractions and sharing as a way of managing Country: for example taking no more than half the eggs from a nest to protect future bird populations



Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation ([ACMNA079 - Scootle](#) )



Elaborations


using division by 10 to extend the place-value system



using knowledge of fractions to establish equivalences between fractions and decimal notation



Money and financial mathematics

Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies ([ACMNA080 - Scootle](#) )



Elaborations


recognising that not all countries use dollars and cents, eg India uses rupees.



carrying out calculations in another currency as well as in dollars and cents, and identifying both as decimal systems



Patterns and algebra


Explore and describe number patterns resulting from performing multiplication ([ACMNA081 - Scootle](#) )



Elaborations

identifying examples of number patterns in everyday life



Solve word problems by using number sentences involving multiplication or division where there is no remainder ([ACMNA082 - Scootle](#) )




Elaborations

representing a word problem as a number sentence



writing a word problem using a given number sentence

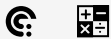


Find unknown quantities in number sentences involving addition and subtraction and identify equivalent number sentences involving addition and subtraction ([ACMNA083 - Scootle](#) )



Elaborations

writing number sentences to represent and answer questions such as: 'When a number is added to 23 the answer is the same as 57 minus 19. What is the number?'




using partitioning to find unknown quantities in number sentences



Measurement and Geometry

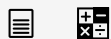
Using units of measurement


Use scaled instruments to measure and compare lengths, masses, capacities and temperatures ([ACMMG084 - Scootle](#) )



Elaborations

reading and interpreting the graduated scales on a range of measuring instruments to the nearest graduation



Compare objects using familiar metric units of area and volume ([ACMMG290 - Scootle](#) )



Elaborations

comparing areas using grid paper




comparing volume using centicubes



recognising that metric units are not the only units used throughout the world, for example measuring the area of floor space using tatami mats (Japan), using squares for room and house area (Australia)



Convert between units of time ([ACMMG085 - Scootle](#) )



Elaborations

identifying and using the correct operation for converting units of time



Use 'am' and 'pm' notation and solve simple time problems ([ACMMG086 - Scootle](#) )



Elaborations

calculating the time spent at school during a normal school day



calculating the time required to travel between two locations



determining arrival time given departure time



Shape


Compare the areas of regular and irregular shapes by informal means ([ACMMG087 - Scootle](#) )



Elaborations

comparing areas using metric units, such as counting the number of square centimetres required to cover two areas by overlaying the areas with a grid of centimetre squares



Compare and describe two dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies ([ACMMG088 - Scootle](#) )

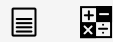


Elaborations

identifying common two-dimensional shapes that are part of a composite shape by re-creating it from these shapes



creating a two-dimensional shapes from verbal or written instructions



Location and transformation

Use simple scales, legends and directions to interpret information contained in basic maps

(ACMMG090 - Scootle [↗](#))



Elaborations

identifying the scale used on maps of cities and rural areas in Australia and a city in Indonesia and describing the difference



using directions to find features on a map



Create symmetrical patterns, pictures and shapes with and without digital technologies

(ACMMG091 - Scootle [↗](#))



Elaborations

using stimulus materials such as the motifs in Central Asian textiles, Tibetan artefacts, Indian lotus designs and symmetry in Yolngu or Central and Western Desert art



Geometric reasoning

Compare angles and classify them as equal to, greater than, or less than, a right angle (ACMMG089 - Scootle [↗](#))




Elaborations

creating angles and comparing them to a right angle using digital technologies



Statistics and Probability

Chance

Describe possible everyday events and order their chances of occurring ([ACMSP092 - Scootle](#) )



Elaborations

using lists of events familiar to students and ordering them from 'least likely' to 'most likely' to occur



Identify everyday events where one cannot happen if the other happens ([ACMSP093 - Scootle](#) )



Elaborations

using examples such as weather, which cannot be dry and wet at the same time



Identify events where the chance of one will not be affected by the occurrence of the other

([ACMSP094 - Scootle](#) )



Elaborations

explaining why the probability of a new baby being either a boy or a girl does not depend on the sex of the previous baby



Data representation and interpretation

Select and trial methods for data collection, including survey questions and recording sheets

([ACMSP095 - Scootle](#) )

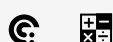



Elaborations

comparing the effectiveness of different methods of collecting data



choosing the most effective way to collect data for a given investigation



Construct suitable [data](#) displays, with and without the use of digital technologies, from given or collected [data](#). Include tables, column graphs and [picture graphs](#) where one picture can represent many [data](#) values ([ACMSP096 - Scootle](#) )




Elaborations

exploring ways of presenting data and showing the results of investigations



investigating data displays using many-to-one correspondence



Evaluate the effectiveness of different displays in illustrating [data](#) features including variability ([ACMSP097 - Scootle](#) )



Elaborations

interpreting data representations in the media and other forums in which symbols represent more than one data value



suggesting questions that can be answered by a given data display and using the display to answer questions

