(no-code)

recognise, represent and order numbers to at least 120 using physical and , , and charts

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Elaborations

• reading, writing and naming and ordering two-digit numbers from to at least 120 120 1 2 0 , using patterns within the natural number system, including numbers that look and sound ; for example, 16 , 60 , 61 16, 60, 61 1 6 , 6 0 , 6 1 and 66 66 6 6

• using number tracks or positioning a of numbered cards in the correct order and relative location by pegging on an empty

• using hundreds charts to build understanding and fluency with numbers; for example, collaboratively building a hundreds chart using cards numbered from to 99 99 9 9 ; colour code the count of tens in a hundreds chart using one colour to represent the number of tens and another to represent the number of ones

• recognising that numbers are used in all languages and cultures but may be represented differently in words and symbols; for example, through kanji numbers in Japanese and characters in Chinese, and that there are alternate numeration systems; for example, using special characters for 10 10 1 0 and 100 100 1 0 0 and other of 10 10 1 0 in Japanese and Chinese numeration

Students learn to:

recognise, represent and order numbers to at least 120 using physical and virtual m

numerals, number lines and charts

(AC9M1N01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Number sense and algebra

• Number and place value

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems

Analysing

• Interpret concepts and problems

Social management

• Collaboration

Analysing

• Interpret concepts and problems

Generating

• Consider alternatives

Engaging with cultural and linguistic diversity

• Communicate responsively

Knowing Asia and its diversity

• People of the Asia region are diverse in backgrounds, experiences, stories, religions, beliefs and perspectives.

Resources

Work Samples

WS03 - Place value

WS02 - Donuts

WS04 - Number charts and puzzles

Snapshot – Number and place value

Numeracy: Number sense and algebra: Number and place value

Content description

AC9M1N01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to 20 20 2 0 (e.g. when shown the numerals 4 , 17 , 9 4, 17, 9 4 , 1 7 , 9 and 16 16 1 6 and asked, "which is 16 16 1 6 ?", points to the numeral 16 16 1 6 or when shown the numeral 17 17 1 7 says its correct name; when role-playing simple money transactions, counts out 9 9 9 one-dollar coins to pay for an item that costs $ 9 \$9 $ 9

• identifies and uses the 1 – 9 1–9 1 – 9 repeating sequence in the writing of teen numerals

• identifies a whole quantity as the result of recognising smaller quantities up to 20 20 2 0 (e.g. uses part-part-whole knowledge of numbers to solve problems)

Developing place value

• orders numbers from 1 – 20 1–20 1 – 2 0 (e.g. determines the largest number from a group of numbers in the range from one to 20 20 2 0 ; students are allocated a number between one and 20 20 2 0 and asked to arrange themselves in numerical order)

• represents and describes teen numbers as 10 10 1 0 and some more (e.g. 16 16 1 6 is 10 10 1 0 and 6 6 6 more; uses ten-frames to represent teen numbers)

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to and beyond 100 100 1 0 0 (e.g. is shown the numerals 70 , 38 , 56 70, 38, 56 7 0 , 3 8 , 5 6 and 26 26 2 6 and when asked "which is 38 38 3 8 ?", identifies the numeral 38 38 3 8 ; writes 18 , 81 18, 81 1 8 , 8 1 and 108 108 1 0 8 with the digits in the correct position; compares the class sizes in a particular year level to determine which class has the greatest number of students)

• identifies the 1 – 9 1-9 1 – 9 repeating sequence of digits, both in and between the decade numerals to order numbers and to predict the number that comes before or after another number (e.g. uses hundreds charts or vertical number lists)

• identifies zero as both a number and a placeholder for reading and writing larger numerals, denoted by the numeral 0 0 0

Place value

• uses knowledge of place value to order numbers represented as numerals within the range of zero to at least 100 100 1 0 0 (e.g. locates the number 21 21 2 1 on a number line between 20 20 2 0 and 22 22 2 2 ; re-orders a set of numerals from least to greatest)

• represents and renames two-digit numbers as counts of tens and ones (e.g. 68 68 6 8 is 6 6 6 tens and 8 8 8 ones, 68 68 6 8 ones, or 60 + 8 60 + 8 6 0 + 8 ; uses physical or virtual materials such as bundles of 10 10 1 0 tooth picks or base 10 10 1 0 blocks)

Numeral recognition and identification

• identifies, names, writes and interprets a numeral from a range of numerals up to 1000 1000 1 0 0 0 (e.g. is shown the numerals 70 , 318 , 576 70, 318, 576 7 0 , 3 1 8 , 5 7 6 and 276 276 2 7 6 and when asked "which is 276 276 2 7 6 ?"' identifies 276 276 2 7 6 ; compares the number of kilojoules in different energy drinks by reading the dietary information)

Place value

• orders and flexibly renames three-digit numbers according to their place value (e.g. 247 247 2 4 7 is 2 2 2 hundreds, 4 4 4 tens and 7 7 7 ones or 2 2 2 hundreds and 47 47 4 7 ones or 24 24 2 4 tens and 7 7 7 ones)

• applies an understanding of zero in place value notation when reading and writing numerals that include internal zeros (e.g. says 807 807 8 0 7 as 8 8 8 hundred and 7 7 7 or 80 80 8 0 tens and 7 7 7 ones, not 80 80 8 0 and 7 7 7)

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1N01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Collaboration

Personal and Social capability: Social management: Collaboration

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• engage with others and participate in group play, tasks and activities

• participate cooperatively in groups on common tasks and activities

• perform designated roles within groups, appreciating everyone's contributions to a shared outcome

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem

• consider alternatives and explore different or creative ways to approach a task or problem

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Communicate responsively

Intercultural Understanding: Engaging with cultural and linguistic diversity: Comm responsively

Content description

AC9M1N01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• notice the use of different languages they, their family or community members use to communicate
• identify and use verbal and non-verbal communication, recognising that these may have different meanings for familiar cultural and linguistic groups
• initiate verbal and non-verbal communication, comparing how members of familiar cultural and linguistic groups respond

Resource – WS03 - Place value

By the end of Year 1, students connect number names, numerals and quantities , and order numbers to at least 120. They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.■Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.■They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies.■Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features.■Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9M1N01

recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts

Resource – WS02 - Donuts

By the end of Year 1, students connect number names, numerals and quantities , and order numbers to at least 120. They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.■Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.
They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features.■Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9M1N01

recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts

AC9M1N02

partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones

AC9M1N03

quantify sets of objects, to at least 120, by partitioning collections into equal groups using number knowledge and skip counting

AC9M1N04

add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

AC9M1N06

use mathematical modelling to solve practical problems involving equal sharing and grouping; represent the situations with diagrams, physical and virtual materials, and use calculation strategies to solve the problem

Resource – WS04 - Number charts and puzzles

By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120.■They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones. Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.■They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers , symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features.■Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9M1N01

recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts

AC9M1N02

partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones

AC9M1A02

recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit

AC9M1A01

recognise, continue and create pattern sequences, with numbers, symbols, and , formed by , initially by twos, fives and tens

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Elaborations

• using number charts, songs, rhymes and stories to establish sequences of twos, fives and tens
• using and to represent a growing pattern formed by ; for example, using blocks or beads to represent the 2 , 4 , 6 , 8 , 10 2, 4, 6, 8, 10 2 , 4 , 6 , 8 , 1 0 … and 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 …
• recognising the patterns in sequences formed by ; for example, that in fives starting from always results in either a 5 5 5 or as the final
• by twos, fives, or tens to determine how much money is in a collection of coins or notes of the same denomination; for example, 5 5 5 cent, 10 10 1 0 cent and $ 2 \$2 $ 2 coins, or $ 5 \$5 $ 5 and $ 10 \$10 $ 1 0 notes
• role-playing being an industrial robot on an assembly that packs various items into boxes or

packets in groups of five or ten, keeping count of the total number of items produced
• using different of the popular Korean game Sam-yuk-gu for generating pattern sequences
Students learn to:

recognise, continue and create pattern sequences, with numbers, symbols, shapes by skip counting, initially by twos, fives and tens

(AC9M1A01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Generating

• Create possibilities
• Consider alternatives

Number sense and algebra

• Counting processes
• Number patterns and algebraic thinking

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Generating

• Consider alternatives

Analysing

• Interpret concepts and problems

Number sense and algebra

• Number and place value

Number sense and algebra

• Understanding money

Analysing

• Interpret concepts and problems

Number sense and algebra

• Counting processes
• Number patterns and algebraic thinking

Knowing Asia and its diversity

• People of the Asia region are diverse in backgrounds, experiences, stories, religions, beliefs and perspectives.

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9M1A01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use imagination to create possibilities by exploring and connecting ideas in ways that are new to them
• create possibilities by connecting or creatively expanding on ideas in ways that are new to them
• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1A01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem
• consider alternatives and explore different or creative ways to approach a task or problem

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from any starting point within the range 1 – 100 1–100 1 – 1 0 0

Perceptual counting

• matches known numerals to collections of up to 20 20 2 0 , counting items using a one-to-one correspondence

• uses zero to denote when no objects are present (e.g. when asked "how many cards have you got?" and has no cards left, says "zero")

• counts objects in a collection independent of the order, appearance or arrangement (e.g. understands that counting 7 7 7 people in a row from left to right is the same as counting them from right to left)

Counting sequences

• continues counting from any number forwards and backwards beyond 100 100 1 0 0 using knowledge of place value

• counts in sequence by twos and fives starting at zero (e.g. counts items using number rhymes " 2 , 4 , 6 , 8 2, 4, 6, 8 2 , 4 , 6 , 8 Mary's at the cottage gate …"; skip counts in fives as " 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 ")

• counts in sequence forwards and backwards by tens on the decade up to 100 100 1 0 0

Perceptual counting

• counts items in groups of twos, fives and tens (e.g. counts a quantity of 10 10 1 0 -cent pieces as 10 , 20 , 30 10, 20, 30 1 0 , 2 0 , 3 0 … to give the total value of the coins; counts the number of students by twos when lined up in pairs)

Counting sequences

• counts in sequence forwards and backwards by tens or fives off the decade to 100 100 1 0 0 and by hundreds up to 1000 1000 1 0 0 0 and beyond using knowledge of place value (e.g. 2 , 12 , 22 2, 12, 22 2 , 1 2 , 2 2 … or 8 , 13 , 18 , 23 8, 13, 18, 23 8 , 1 3 , 1 8 , 2 3 ; 100 , 200 100, 200 1 0 0 , 2 0 0 … 1000 1000 1 0 0 0)

Perceptual counting

• counts large quantities in groups or multiples (e.g. groups items into piles of 10 10 1 0 , then counts the piles, adding on the residual to quantify the whole collection)

• estimates the number of items to count to assist with determining group sizes (e.g. decides that counting in twos would not be the most efficient counting strategy based on a quick estimate of the quantity and decides instead to use groups of 10 10 1 0)

Snapshot – Number patterns and algebraic thinking

Numeracy: Number sense and algebra: Number patterns and algebraic thinking

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Identifying and creating patterns

• identifies the pattern unit with a simple repeating pattern (e.g. identifies the repeating pattern red, blue, red, blue with red then blue; identifies the repeating patterns in everyday activities, days of the week or seasons of the year)

• continues and creates repeating patterns involving the repetition of a pattern unit with shapes,

movements, sounds, physical and virtual materials and numbers (e.g. circle, square, circle, square; stamp, clap, stamp, clap; 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3 1,2,3, 1,2,3, 1,2,3 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3)

• identifies, continues and creates simple geometric patterns involving shapes, physical or virtual materials

• determines a missing element within a pattern involving shapes, physical or virtual materials

• conceptually subitises by identifying patterns in standard representations (e.g. patterns within ten-frames, uses finger patterns to represent a quantity)

Continuing and generalising patterns

• represents growing patterns where the difference between each successive term is constant, using physical and virtual materials, then summarising the pattern numerically (e.g. constructs a pattern using physical materials such as toothpicks, then summarises the number of toothpicks used as 4 , 7 , 10 , 13 4, 7, 10, 13 4 , 7 , 1 0 , 1 3 ...)

• describes rules for replicating or continuing growing patterns where the difference between each successive term is the same (e.g. to determine the next number in the pattern 3 , 6 , 9 , 12 3, 6, 9, 12 3 , 6 , 9 , 1 2 … you add 3 3 3 ; for 20 , 15 , 10 20, 15, 10 2 0 , 1 5 , 1 0 … the rule is described as each term is generated by subtracting 5 5 5 from the previous term)

Relational thinking

• uses the equals sign to represent "is equivalent to" or "is the same as" in number sentences (e.g. when asked to write an expression that is equivalent to 5 + 3 5 + 3 5 + 3 , responds 6 + 2 6 + 2 6 + 2 and then writes 5 + 3 = 6 + 2 5 + 3 = 6 + 2 5 + 3 = 6 + 2

• solves number sentences involving unknowns using the inverse relationship between addition and subtraction (e.g. 3 + 3\space + \space 3 + ? = 5 = 5 = 5 and knowing 5 – 3 = 2 5 \space– \space3 = 2 5 – 3 = 2 then ? must be 2 2 2)

Generalising patterns

• represents growing patterns where each successive term is determined by multiplying the previous term by a constant, using concrete materials, then summarises the pattern numerically (e.g. constructs a pattern using concrete materials such as tiles then summarises the pattern as 2 , 6 , 18 , 54 2, 6, 18, 54 2 , 6 , 1 8 , 5 4 ...)

• describes rules for copying or continuing patterns where each successive term is found by multiplying or dividing the previous term by the same factor (e.g. to determine the next term in the pattern 1 , 3 , 9 , 27 1, 3, 9, 27 1 , 3 , 9 , 2 7 … multiply by 3 3 3)

Relational thinking

• uses relational thinking to determine the missing values in a number sentence (e.g. 6 + 6 +\space 6 + ? = 7 + 4 = 7 + 4 = 7 + 4)

• uses equivalent number sentences involving addition or subtraction to calculate efficiently or to find an unknown (e.g. 527 + 96 = 527 + 96 = \space 5 2 7 + 9 6 = ? is the same as 527 + 100 – 4 = 527 + 100\space – 4 = \space 5 2 7 + 1 0 0 – 4 = ? ; If 6 + 6 + \space 6 + ? = 8 + 3 = 8 + 3 = 8 + 3 , then as I know 8 = 6 + 2 8 = 6 + 2 8 = 6 + 2 , I can write 8 + 3 8 + 3 8 + 3 as 6 + 2 + 3 6 + 2 + 3 6 + 2 + 3 , which is the same as 6 + 5 6 + 5 6 + 5 therefore '?' is 5 5 5)

• solves numerical equations involving unknowns using the inverse relationship between multiplication and division (e.g. determines the missing number in 2 × 2 \times\space 2 × ? = 10 = 10 = 1 0 knowing 10 ÷ 2 10 ÷ 2 1 0 ÷ 2 is equal to 5 5 5 then ? must be 5 5 5)

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1A01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem

• consider alternatives and explore different or creative ways to approach a task or problem

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1A01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Number and place value

Numeracy: Number sense and algebra: Number and place value

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to 20 20 2 0 (e.g. when shown the numerals 4 , 17 , 9 4, 17, 9 4 , 1 7 , 9 and 16 16 1 6 and asked, "which is 16 16 1 6 ?", points to the numeral 16 16 1 6 or when shown the numeral 17 17 1 7 says its correct name; when role-playing simple money transactions, counts out 9 9 9 one-dollar coins to pay for an item that costs $ 9 \$9 $ 9

• identifies and uses the 1 – 9 1–9 1 – 9 repeating sequence in the writing of teen numerals

• identifies a whole quantity as the result of recognising smaller quantities up to 20 20 2 0 (e.g. uses part-part-whole knowledge of numbers to solve problems)

Developing place value

• orders numbers from 1 – 20 1–20 1 – 2 0 (e.g. determines the largest number from a group of numbers in the range from one to 20 20 2 0 ; students are allocated a number between one and 20 20 2 0 and asked to arrange themselves in numerical order)

• represents and describes teen numbers as 10 10 1 0 and some more (e.g. 16 16 1 6 is 10 10 1 0 and 6 6 6 more; uses ten-frames to represent teen numbers)

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to and beyond 100 100 1 0 0 (e.g. is shown the numerals 70 , 38 , 56 70, 38, 56 7 0 , 3 8 , 5 6 and 26 26 2 6 and when asked "which is 38 38 3 8 ?", identifies the numeral 38 38 3 8 ; writes 18 , 81 18, 81 1 8 , 8 1 and 108 108 1 0 8 with the digits in the correct position; compares the class sizes in a particular year level to determine which class has the greatest number of students)

• identifies the 1 – 9 1-9 1 – 9 repeating sequence of digits, both in and between the decade numerals to order numbers and to predict the number that comes before or after another number (e.g. uses hundreds charts or vertical number lists)

• identifies zero as both a number and a placeholder for reading and writing larger numerals, denoted by the numeral 0 0 0

Place value

• uses knowledge of place value to order numbers represented as numerals within the range of zero to at least 100 100 1 0 0 (e.g. locates the number 21 21 2 1 on a number line between 20 20 2 0 and 22 22 2 2 ; re-orders a set of numerals from least to greatest)

• represents and renames two-digit numbers as counts of tens and ones (e.g. 68 68 6 8 is 6 6 6 tens and 8 8 8 ones, 68 68 6 8 ones, or 60 + 8 60 + 8 6 0 + 8 ; uses physical or virtual materials such as bundles of 10 10 1 0 tooth picks or base 10 10 1 0 blocks)

Numeral recognition and identification

• identifies, names, writes and interprets a numeral from a range of numerals up to 1000 1000 1 0 0 0 (e.g. is shown the numerals 70 , 318 , 576 70, 318, 576 7 0 , 3 1 8 , 5 7 6 and 276 276 2 7 6 and when asked "which is 276 276 2 7 6 ?"' identifies 276 276 2 7 6 ; compares the number of kilojoules in different energy drinks by reading the dietary information)

Place value

• orders and flexibly renames three-digit numbers according to their place value (e.g. 247 247 2 4 7 is 2 2 2 hundreds, 4 4 4 tens and 7 7 7 ones or 2 2 2 hundreds and 47 47 4 7 ones or 24 24 2 4 tens and 7 7 7 ones)

• applies an understanding of zero in place value notation when reading and writing numerals that include internal zeros (e.g. says 807 807 8 0 7 as 8 8 8 hundred and 7 7 7 or 80 80 8 0 tens and 7 7 7 ones, not 80 80 8 0 and 7 7 7)

Snapshot – Understanding money

Numeracy: Number sense and algebra: Understanding money

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Sorting money

• sorts and orders Australian coins or notes based on their face value

• sorts and then counts the number of Australian coins or notes with the same face value

Counting money

• determines the equivalent value of coins or notes sorted into one denomination

• counts small collections of coins or notes according to their value

• writes the value of a small collection of coins or notes in whole dollars, or whole cents using numbers and the correct dollar sign or cent symbol

Equivalent money

• understands that the Australian monetary system includes both coins and notes and how they are related (e.g. orders a collection of money based on its monetary value)

• determines the equivalent value of coins to $ 5 \$5 $ 5 using any combination of 5 5 5 c, 10 10 1 0 c, 20 20 2 0 c or 50 50 5 0 c coins

• represents different values of money in multiple ways

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1A01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from any starting point within the range 1 – 100 1–100 1 – 1 0 0

Perceptual counting

• matches known numerals to collections of up to 20 20 2 0 , counting items using a one-to-one correspondence

• uses zero to denote when no objects are present (e.g. when asked "how many cards have you got?" and has no cards left, says "zero")

• counts objects in a collection independent of the order, appearance or arrangement (e.g. understands that counting 7 7 7 people in a row from left to right is the same as counting them from right to left)

Counting sequences

• continues counting from any number forwards and backwards beyond 100 100 1 0 0 using knowledge of

place value
• counts in sequence by twos and fives starting at zero (e.g. counts items using number rhymes " 2 , 4 , 6 , 8 2, 4, 6, 8 2 , 4 , 6 , 8 Mary's at the cottage gate …"; skip counts in fives as " 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 ")
• counts in sequence forwards and backwards by tens on the decade up to 100 100 1 0 0

Perceptual counting

• counts items in groups of twos, fives and tens (e.g. counts a quantity of 10 10 1 0 -cent pieces as 10 , 20 , 30 10, 20, 30 1 0 , 2 0 , 3 0 … to give the total value of the coins; counts the number of students by twos when lined up in pairs)

Counting sequences

• counts in sequence forwards and backwards by tens or fives off the decade to 100 100 1 0 0 and by hundreds up to 1000 1000 1 0 0 0 and beyond using knowledge of place value (e.g. 2 , 12 , 22 2, 12, 22 2 , 1 2 , 2 2 … or 8 , 13 , 18 , 23 8, 13, 18, 23 8 , 1 3 , 1 8 , 2 3 ; 100 , 200 100, 200 1 0 0 , 2 0 0 … 1000 1000 1 0 0 0)

Perceptual counting

• counts large quantities in groups or multiples (e.g. groups items into piles of 10 10 1 0 , then counts the piles, adding on the residual to quantify the whole collection)
• estimates the number of items to count to assist with determining group sizes (e.g. decides that counting in twos would not be the most efficient counting strategy based on a quick estimate of the quantity and decides instead to use groups of 10 10 1 0)

Snapshot – Number patterns and algebraic thinking

Numeracy: Number sense and algebra: Number patterns and algebraic thinking

Content description

AC9M1A01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Identifying and creating patterns

• identifies the pattern unit with a simple repeating pattern (e.g. identifies the repeating pattern red, blue, red, blue with red then blue; identifies the repeating patterns in everyday activities, days of the week or seasons of the year)
• continues and creates repeating patterns involving the repetition of a pattern unit with shapes, movements, sounds, physical and virtual materials and numbers (e.g. circle, square, circle, square; stamp, clap, stamp, clap; 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3 1,2,3, 1,2,3, 1,2,3 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3)
• identifies, continues and creates simple geometric patterns involving shapes, physical or virtual materials
• determines a missing element within a pattern involving shapes, physical or virtual materials
• conceptually subitises by identifying patterns in standard representations (e.g. patterns within ten-frames, uses finger patterns to represent a quantity)

Continuing and generalising patterns

• represents growing patterns where the difference between each successive term is constant, using physical and virtual materials, then summarising the pattern numerically (e.g. constructs a pattern using physical materials such as toothpicks, then summarises the number of toothpicks used as 4 , 7 , 10 , 13 4, 7, 10, 13 4 , 7 , 1 0 , 1 3 ...)
• describes rules for replicating or continuing growing patterns where the difference between each successive term is the same (e.g. to determine the next number in the pattern 3 , 6 , 9 , 12 3, 6, 9, 12 3 , 6 , 9 , 1 2 … you add 3 3 3 ; for 20 , 15 , 10 20, 15, 10 2 0 , 1 5 , 1 0 … the rule is described as each term is generated by subtracting 5 5 5 from the previous term)

Relational thinking

• uses the equals sign to represent "is equivalent to" or "is the same as" in number sentences (e.g. when asked to write an expression that is equivalent to 5 + 3 5 + 3 5 + 3 , responds 6 + 2 6 + 2 6 + 2 and then writes 5 + 3 = 6 + 2 5 + 3 = 6 + 2 5 + 3 = 6 + 2
• solves number sentences involving unknowns using the inverse relationship between addition and subtraction (e.g. 3 + 3\space + \space 3 + ? = 5 = 5 = 5 and knowing 5 – 3 = 2 5 \space– \space3 = 2

5 – 3 = 2 then ? must be 2 2 2)

Generalising patterns

• represents growing patterns where each successive term is determined by multiplying the previous term by a constant, using concrete materials, then summarises the pattern numerically (e.g. constructs a pattern using concrete materials such as tiles then summarises the pattern as 2 , 6 , 18 , 54 2, 6, 18, 54 2 , 6 , 1 8 , 5 4 ...)

• describes rules for copying or continuing patterns where each successive term is found by multiplying or dividing the previous term by the same factor (e.g. to determine the next term in the pattern 1 , 3 , 9 , 27 1, 3, 9, 27 1 , 3 , 9 , 2 7 … multiply by 3 3 3)

Relational thinking

• uses relational thinking to determine the missing values in a number sentence (e.g. 6 + 6 +\space 6 + ? = 7 + 4 = 7 + 4 = 7 + 4)

• uses equivalent number sentences involving addition or subtraction to calculate efficiently or to find an unknown (e.g. 527 + 96 = 527 + 96 = \space 5 2 7 + 9 6 = ? is the same as 527 + 100 – 4 = 527 + 100\space – 4 = \space 5 2 7 + 1 0 0 – 4 = ? ; If 6 + 6 + \space 6 + ? = 8 + 3 = 8 + 3 = 8 + 3 , then as I know 8 = 6 + 2 8 = 6 + 2 8 = 6 + 2 , I can write 8 + 3 8 + 3 8 + 3 as 6 + 2 + 3 6 + 2 + 3 6 + 2 + 3 , which is the same as 6 + 5 6 + 5 6 + 5 therefore '?' is 5 5 5)

• solves numerical equations involving unknowns using the inverse relationship between multiplication and division (e.g. determines the missing number in 2 × 2 \times\space 2 × ? = 10 = 10 = 1 0 knowing 10 ÷ 2 10 ÷ 2 1 0 ÷ 2 is equal to 5 5 5 then ? must be 5 5 5)

AC9M1A02

recognise, continue and create with numbers, symbols, and , identifying the repeating unit

•

•

Elaborations

• interpreting a sequence created by someone else, noticing and describing the repeating part of the pattern and explaining how they know what comes next in the sequence

• generalising a by identifying the unit of repeat and representing the using numbers, letters or symbols; for example, representing the of stamp, stamp, clap, stamp clap, stamp, stamp, clap, stamp, clap as SSCSC SSCSC SSCSC... recognising the that are repeating, describing the unit of repeat as SSCSC and continuing the pattern

• recognising within the sequencing of that 0 – 9 0 – 9 0 – 9 are repeated both in and between the decades and using this pattern to continue the sequence and name two-digit numbers beyond 20 20 2 0

• collaboratively creating a repeating geometric pattern using or a generative artificial intelligence tool, discussing as a class what instructions they would need to input to produce a

• identifying the in First Nations Australians' systems of , exploring different ways of representing numbers including oral and gestural language

• considering how the making of shell or seed necklaces by First Nations Australians' includes practices such as sorting shells and beads based on colour, size and , and creating a sequence

Students learn to:

recognise, continue and create repeating patterns with numbers, symbols, shapes a identifying the repeating unit

(AC9M1A02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

Generating

• Create possibilities

• Consider alternatives

Number sense and algebra

• Number patterns and algebraic thinking

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to

general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Analysing

• Interpret concepts and problems

Number sense and algebra

• Number and place value

Creating and exchanging

• Create, communicate and collaborate

Number sense and algebra

• Number patterns and algebraic thinking

Number sense and algebra

• Counting processes

• Number and place value

People

• First Nations Australians have sophisticated political, economic and social organisation systems, which include family and kinship structures, laws, traditions, customs, land tenure systems, and protocols for strong governance and authority.

Generating

• Consider alternatives

Measurement and geometry

• Understanding units of measurement

Statistics and probability

• Interpreting and representing data

Culture

• First Nations Australians' ways of life reflect unique ways of being, knowing, thinking and doing.

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9AMU2C01

AC9S1U02

AC9TDI2P02

Resources

Work Samples

WS01 - Equilateral triangles

WS04 - Number charts and puzzles

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use imagination to create possibilities by exploring and connecting ideas in ways that are new to them

• create possibilities by connecting or creatively expanding on ideas in ways that are new to them

• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem

• consider alternatives and explore different or creative ways to approach a task or problem

• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Number patterns and algebraic thinking

Numeracy: Number sense and algebra: Number patterns and algebraic thinking

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Recognises patterns

• identifies and describes patterns in everyday contexts (e.g. brick pattern in a wall or the colour sequence of a traffic light)

• identifies "same" and "different" in comparisons

• copies simple patterns using shapes and objects

• identifies numbers in standard pattern configurations without needing to count individual items (e.g. numbers represented on dominos or a standard dice)

Identifying and creating patterns

• identifies the pattern unit with a simple repeating pattern (e.g. identifies the repeating pattern red, blue, red, blue with red then blue; identifies the repeating patterns in everyday activities, days of the week or seasons of the year)

• continues and creates repeating patterns involving the repetition of a pattern unit with shapes, movements, sounds, physical and virtual materials and numbers (e.g. circle, square, circle, square; stamp, clap, stamp, clap; 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3 1,2,3, 1,2,3, 1,2,3 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3)

• identifies, continues and creates simple geometric patterns involving shapes, physical or virtual materials

• determines a missing element within a pattern involving shapes, physical or virtual materials

• conceptually subitises by identifying patterns in standard representations (e.g. patterns within ten-frames, uses finger patterns to represent a quantity)

Continuing and generalising patterns

• represents growing patterns where the difference between each successive term is constant, using physical and virtual materials, then summarising the pattern numerically (e.g. constructs a pattern using physical materials such as toothpicks, then summarises the number of toothpicks used as 4 , 7 , 10 , 13 4, 7, 10, 13 4 , 7 , 1 0 , 1 3 ...)

• describes rules for replicating or continuing growing patterns where the difference between each successive term is the same (e.g. to determine the next number in the pattern 3 , 6 , 9 , 12 3, 6, 9, 12 3 , 6 , 9 , 1 2 … you add 3 3 3 ; for 20 , 15 , 10 20, 15, 10 2 0 , 1 5 , 1 0 … the rule is described as each term is generated by subtracting 5 5 5 from the previous term)

Relational thinking

• uses the equals sign to represent "is equivalent to" or "is the same as" in number sentences (e.g. when asked to write an expression that is equivalent to 5 + 3 5 + 3 5 + 3 , responds 6 + 2 6 + 2 6 + 2 and then writes 5 + 3 = 6 + 2 5 + 3 = 6 + 2 5 + 3 = 6 + 2
• solves number sentences involving unknowns using the inverse relationship between addition and subtraction (e.g. 3 + 3\space + \space 3 + ? = 5 = 5 = 5 and knowing 5 – 3 = 2 5 \space– \space3 = 2 5 – 3 = 2 then ? must be 2 2 2)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Number and place value

Numeracy: Number sense and algebra: Number and place value

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to 20 20 2 0 (e.g. when shown the numerals 4 , 17 , 9 4, 17, 9 4 , 1 7 , 9 and 16 16 1 6 and asked, "which is 16 16 1 6 ?", points to the numeral 16 16 1 6 or when shown the numeral 17 17 1 7 says its correct name; when role-playing simple money transactions, counts out 9 9 9 one-dollar coins to pay for an item that costs $ 9 \$9 $ 9
• identifies and uses the 1 – 9 1–9 1 – 9 repeating sequence in the writing of teen numerals
• identifies a whole quantity as the result of recognising smaller quantities up to 20 20 2 0 (e.g. uses part-part-whole knowledge of numbers to solve problems)

Developing place value

• orders numbers from 1 – 20 1–20 1 – 2 0 (e.g. determines the largest number from a group of numbers in the range from one to 20 20 2 0 ; students are allocated a number between one and 20 20 2 0 and asked to arrange themselves in numerical order)
• represents and describes teen numbers as 10 10 1 0 and some more (e.g. 16 16 1 6 is 10 10 1 0 and 6 6 6 more; uses ten-frames to represent teen numbers)

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to and beyond 100 100 1 0 0 (e.g. is shown the numerals 70 , 38 , 56 70, 38, 56 7 0 , 3 8 , 5 6 and 26 26 2 6 and when asked "which is 38 38 3 8 ?", identifies the numeral 38 38 3 8 ; writes 18 , 81 18, 81 1 8 , 8 1 and 108 108 1 0 8 with the digits in the correct position; compares the class sizes in a particular year level to determine which class has the greatest number of students)
• identifies the 1 – 9 1-9 1 – 9 repeating sequence of digits, both in and between the decade numerals to order numbers and to predict the number that comes before or after another number (e.g. uses hundreds charts or vertical number lists)

• identifies zero as both a number and a placeholder for reading and writing larger numerals, denoted by the numeral 0 0 0

Place value

• uses knowledge of place value to order numbers represented as numerals within the range of zero to at least 100 100 1 0 0 (e.g. locates the number 21 21 2 1 on a number line between 20 20 2 0 and 22 22 2 2 ; re-orders a set of numerals from least to greatest)

• represents and renames two-digit numbers as counts of tens and ones (e.g. 68 68 6 8 is 6 6 6 tens and 8 8 8 ones, 68 68 6 8 ones, or 60 + 8 60 + 8 6 0 + 8 ; uses physical or virtual materials such as bundles of 10 10 1 0 tooth picks or base 10 10 1 0 blocks)

Numeral recognition and identification

• identifies, names, writes and interprets a numeral from a range of numerals up to 1000 1000 1 0 0 0 (e.g. is shown the numerals 70 , 318 , 576 70, 318, 576 7 0 , 3 1 8 , 5 7 6 and 276 276 2 7 6 and when asked "which is 276 276 2 7 6 ?"' identifies 276 276 2 7 6 ; compares the number of kilojoules in different energy drinks by reading the dietary information)

Place value

• orders and flexibly renames three-digit numbers according to their place value (e.g. 247 247 2 4 7 is 2 2 2 hundreds, 4 4 4 tens and 7 7 7 ones or 2 2 2 hundreds and 47 47 4 7 ones or 24 24 2 4 tens and 7 7 7 ones)

• applies an understanding of zero in place value notation when reading and writing numerals that include internal zeros (e.g. says 807 807 8 0 7 as 8 8 8 hundred and 7 7 7 or 80 80 8 0 tens and 7 7 7 ones, not 80 80 8 0 and 7 7 7)

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use simple digital tools to create content

• experiment with the features of familiar digital tools to create content

• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

Snapshot – Number patterns and algebraic thinking

Numeracy: Number sense and algebra: Number patterns and algebraic thinking

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Recognises patterns

• identifies and describes patterns in everyday contexts (e.g. brick pattern in a wall or the colour sequence of a traffic light)

• identifies "same" and "different" in comparisons

• copies simple patterns using shapes and objects

• identifies numbers in standard pattern configurations without needing to count individual items (e.g. numbers represented on dominos or a standard dice)

Identifying and creating patterns

• identifies the pattern unit with a simple repeating pattern (e.g. identifies the repeating pattern red, blue, red, blue with red then blue; identifies the repeating patterns in everyday activities, days of the week or seasons of the year)

• continues and creates repeating patterns involving the repetition of a pattern unit with shapes, movements, sounds, physical and virtual materials and numbers (e.g. circle, square, circle, square; stamp, clap, stamp, clap; 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3 1,2,3, 1,2,3, 1,2,3 1 , 2 , 3 , 1 , 2 , 3 , 1 , 2 , 3)

• identifies, continues and creates simple geometric patterns involving shapes, physical or virtual

materials
• determines a missing element within a pattern involving shapes, physical or virtual materials
• conceptually subitises by identifying patterns in standard representations (e.g. patterns within ten-frames, uses finger patterns to represent a quantity)

Continuing and generalising patterns

• represents growing patterns where the difference between each successive term is constant, using physical and virtual materials, then summarising the pattern numerically (e.g. constructs a pattern using physical materials such as toothpicks, then summarises the number of toothpicks used as 4 , 7 , 10 , 13 4, 7, 10, 13 4 , 7 , 1 0 , 1 3 ...)
• describes rules for replicating or continuing growing patterns where the difference between each successive term is the same (e.g. to determine the next number in the pattern 3 , 6 , 9 , 12 3, 6, 9, 12 3 , 6 , 9 , 1 2 … you add 3 3 3 ; for 20 , 15 , 10 20, 15, 10 2 0 , 1 5 , 1 0 … the rule is described as each term is generated by subtracting 5 5 5 from the previous term)

Relational thinking

• uses the equals sign to represent "is equivalent to" or "is the same as" in number sentences (e.g. when asked to write an expression that is equivalent to 5 + 3 5 + 3 5 + 3 , responds 6 + 2 6 + 2 6 + 2 and then writes 5 + 3 = 6 + 2 5 + 3 = 6 + 2 5 + 3 = 6 + 2
• solves number sentences involving unknowns using the inverse relationship between addition and subtraction (e.g. 3 + 3\space + \space 3 + ? = 5 = 5 = 5 and knowing 5 – 3 = 2 5 \space– \space3 = 2 5 – 3 = 2 then ? must be 2 2 2)

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• counts in stable counting order from one within a known number range (e.g. engages with counting in nursery rhymes, songs and children’s literature)

Perceptual counting

• conceptually subitises a collection up to 5 5 5 (e.g. recognises a collection of 5 5 5 items as a result of perceptually subitising smaller parts such as 3 3 3 and 2 2 2)
• counts a small number of items typically less than 4 4 4
• engages in basic counting during play-based activities such as cooking or shopping (e.g. places 3 3 3 bananas in a shopping basket one at a time and says " 1 , 2 , 3 1, 2, 3 1 , 2 , 3 ")

Counting sequences

• counts forward by one using the full counting sequence to determine the number before or after a given number, within the range of 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes after 6 6 6 , counts from one in sequence up to 7 7 7 then says "it’s 7 7 7 "; when asked what number comes before 6 6 6 , counts from one, 1 , 2 , 3 , 4 , 5 , 6 1, 2, 3, 4, 5, 6 1 , 2 , 3 , 4 , 5 , 6 and responds "its 5 5 5 ")

Perceptual counting

• matches the count to objects, using one-to-one correspondence (e.g. counts visible or orderly items by ones; may use objects, tally marks, bead strings, sounds or fingers to count; identifies that 2 2 2 sirens means it is lunchtime)
• determines that the last number said in a count names the quantity or total of that collection (e.g. when asked "how many" after they have counted the collection, repeats the last number in the count and indicates that it refers to the number of items in the collection)

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from a number in the range 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes directly after 8 8 8 , immediately responds with " 9 9 9 " without needing to count from one)
• continues a count starting from a number other than one

Perceptual counting

• interprets the count independently of the type of objects being counted (e.g. a quantity of 5 5 5 counters is the same quantity as 5 5 5 basketball courts)
• counts a collection, keeping track of items that have been counted and those that haven’t been counted yet to ensure they are only counted exactly once (e.g. when asked to count a pile of blocks, moves each block to the side as it is counted)

Snapshot – Number and place value

Numeracy: Number sense and algebra: Number and place value

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Numeral recognition and identification

• identifies and names numerals in the range of 1 – 10 1–10 1 – 1 0 (e.g. when asked "which is 3 3 3 ?" points to the numeral 3 3 3 ; when shown the numeral 5 5 5 , says "that’s 5 5 5 ")
• matches a quantity of items in a collection to the correct number name or numeral in the range of 1 – 10 1–10 1 – 1 0 (e.g. when shown the numeral 5 5 5 and asked to "go and collect this many items", gathers 5 5 5 items)
• identifies standard number configurations such as on standard dice or dominos and in other arrangements up to 6 6 6 , using subitising (e.g. moves a counter the correct number of places on a board game based on the roll of a dice; recognises a collection of 5 5 5 items by perceptually subitising 3 3 3 and 2 2 2)

Developing place value

• orders numbers represented by numerals to at least 10 10 1 0 (e.g. uses number cards, or a number track and places the numerals 1 – 10 1–10 1 – 1 0 in the correct order)
• indicates the greater or lesser of 2 2 2 numbers represented by numerals in the range from one to 10 10 1 0 (e.g. when shown the numerals 6 6 6 and 3 3 3 , identifies 3 3 3 as representing the lesser amount)
• identifies smaller collections within collections to 10 10 1 0 such as numbers represented in non-standard number configurations (e.g. recognises 7 7 7 dots represented in a non-standard configuration by perceptually subitising 4 4 4 and 3 3 3 ; represents numbers less than 10 10 1 0 using five- and ten-frames)
• demonstrates that one 10 10 1 0 is the same as 10 10 1 0 ones (e.g. uses physical and virtual materials such as ten-frames and bundles of 10 10 1 0)

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to 20 20 2 0 (e.g. when shown the numerals 4 , 17 , 9 4, 17, 9 4 , 1 7 , 9 and 16 16 1 6 and asked, "which is 16 16 1 6 ?", points to the numeral 16 16 1 6 or when shown the numeral 17 17 1 7 says its correct name; when role-playing simple money transactions, counts out 9 9 9 one-dollar coins to pay for an item that costs $ 9 \$9 $ 9
• identifies and uses the 1 – 9 1–9 1 – 9 repeating sequence in the writing of teen numerals
• identifies a whole quantity as the result of recognising smaller quantities up to 20 20 2 0 (e.g. uses part-part-whole knowledge of numbers to solve problems)

Developing place value

• orders numbers from 1 – 20 1–20 1 – 2 0 (e.g. determines the largest number from a group of numbers in the range from one to 20 20 2 0 ; students are allocated a number between one and 20 20 2 0 and asked to arrange themselves in numerical order)
• represents and describes teen numbers as 10 10 1 0 and some more (e.g. 16 16 1 6 is 10 10 1 0 and 6 6 6 more; uses ten-frames to represent teen numbers)

Numeral recognition and identification

• identifies, names, writes and interprets numerals up to and beyond 100 100 1 0 0 (e.g. is shown the numerals 70 , 38 , 56 70, 38, 56 7 0 , 3 8 , 5 6 and 26 26 2 6 and when asked "which is 38 38 3 8 ?", identifies the numeral 38 38 3 8 ; writes 18 , 81 18, 81 1 8 , 8 1 and 108 108 1 0 8 with the digits in the correct position; compares the class sizes in a particular year level to determine which class has the greatest number of students)
• identifies the 1 – 9 1-9 1 – 9 repeating sequence of digits, both in and between the decade

numerals to order numbers and to predict the number that comes before or after another number (e.g. uses hundreds charts or vertical number lists)
• identifies zero as both a number and a placeholder for reading and writing larger numerals, denoted by the numeral 0 0 0

Place value

• uses knowledge of place value to order numbers represented as numerals within the range of zero to at least 100 100 1 0 0 (e.g. locates the number 21 21 2 1 on a number line between 20 20 2 0 and 22 22 2 2 ; re-orders a set of numerals from least to greatest)
• represents and renames two-digit numbers as counts of tens and ones (e.g. 68 68 6 8 is 6 6 6 tens and 8 8 8 ones, 68 68 6 8 ones, or 60 + 8 60 + 8 6 0 + 8 ; uses physical or virtual materials such as bundles of 10 10 1 0 tooth picks or base 10 10 1 0 blocks)

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1A02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• consider alternatives by suggesting a different way to approach a given task or problem
• consider alternatives and explore different or creative ways to approach a task or problem
• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Understanding units of measurement

Numeracy: Measurement and geometry: Understanding units of measurement

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Describing the size of objects

• uses gestures and informal language to identify the size of objects (e.g. holds hands apart and says "it's this big")
• uses everyday language to describe attributes in absolute terms that can be measured (e.g. "my tower is tall", "this box is heavy", "it is warm today")

Comparing and ordering objects

• uses direct comparison to compare 2 2 2 objects and indicates whether they are the same or different based on attributes such as length, height, mass or capacity (e.g. compares the length of 2 2 2 objects by aligning the ends; pours sand or water from one container to another to decide which holds more; hefts to decide which is heavier)
• uses comparative language to compare 2 2 2 objects (e.g. states which is shorter or longer, lighter or heavier)
• orders 3 3 3 or more objects by comparing pairs of objects (e.g. decides where to stand in a line ordered by height by comparing their height to others directly)

Using informal units of measurement

• measures an attribute by choosing and using multiple identical, informal units (e.g. measures the distance from one goal post to the other by counting out footsteps; chooses to count out loud to 30 30 3 0 to give enough time for people to hide in a game of hide and seek)
• selects the appropriate size and dimensions of an informal unit to measure and compare attributes (e.g. chooses a linear unit such as a pencil to measure length, or a bucket to measure the capacity of a large container)
• chooses and uses appropriate uniform informal units to measure length and area without gaps or overlaps (e.g. uses the same sized paper clips to measure the length of a line; uses tiles, rather than counters, to measure the area of a sheet of paper because the tiles fit together without gaps)
• uses multiple uniform informal units to measure and make direct comparisons between the mass or capacity of objects (e.g. uses a balance scale and a number of same-sized marbles to compare mass; uses a number of cups of water or buckets of sand to measure capacity)

• counts the individual uniform units used by ones to compare measurements (e.g. counts the number of matchsticks and says, "I used 4 4 4 matchsticks to measure the width of my book and the shelf is 5 5 5 matchsticks wide, so I know my book will fit")

Estimating measurements

• estimates a measurement based on a number of uniform informal units (e.g. estimates the measurement as "about 4 4 4 handspans" or it takes about 2 2 2 buckets of water)
• checks an estimate using informal units to compare to predicted measurement

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1A02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)
• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)
• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)
• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)
• displays and describes one variable data in lists or tables
• communicates information through text, picture graphs and tables using numbers and symbols (e.g. creates picture graphs to display one-variable data)
• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Resource – WS01 - Equilateral triangles

By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120.■They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.■Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120. They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features. Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9MFN02

partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones

AC9M1N04

add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

AC9M1A02

recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit

AC9M1SP01

make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them

Resource – WS04 - Number charts and puzzles

By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120.■They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones. Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120.■They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers , symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features.■Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9M1N01

recognise, represent and order numbers to at least 120 using physical and virtual materials, numerals, number lines and charts

AC9M1N02

partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones

AC9M1A02

recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit

AC9M1M01

compare directly and indirectly and order and using of length, , and , communicating reasoning

•

•

Elaborations

• using a piece of string to indirectly compare the length of several , deciding which will fit within a space; using comparative language to describe the order: shortest, short, longer, longest

• ordering the of 3 3 3 or more such as rocks, using hefting and balance ; using comparative language to explain the order: lightest, light, heavier, heaviest, and how they decided on the order

• pouring sand/rice/water from one container to another to compare and order the of 3 3 3 or more containers; describing the order of the results in terms of which holds the most/least, and those in between

• creating sand timers from everyday items or recycled material and comparing them to order the of time required for the sand to run through

• investigating situations where First Nations Australians estimate, compare and communicate measurements; for example, the of seasons; understanding animal behaviour using the length of animal

tracks; investigating through water management techniques of First Nations Australians, such as traditional water carrying vessels and rock holes

Students learn to:

compare directly and indirectly and order objects and events using attributes of len capacity and duration, communicating reasoning

(AC9M1M01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Measurement and geometry

• Understanding units of measurement

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Inquiring

• Identify, process and evaluate information

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems

• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems

Inquiring

• Identify, process and evaluate information

Speaking and listening

• Speaking

Analysing

• Draw conclusions and provide reasons

Measurement and geometry

• Measuring time

Culture

• First Nations Australians' ways of life reflect unique ways of being, knowing, thinking and doing.

People

• First Nations Australians have sophisticated political, economic and social organisation systems, which include family and kinship structures, laws, traditions, customs, land tenure systems, and protocols for strong governance and authority.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HS1S02

AC9HS1S03

AC9S1I03

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made

• draw conclusions and make choices when completing tasks and explain the reasons for choices made

• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic

• prioritise the information that is most relevant to the topic of study

• identify and explore relevant information from a range of sources, including visual information and digital sources

• identify and explain similarities and differences in selected information

• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources

• condense and combine selected information related to the topic of study

Snapshot – Understanding units of measurement

Numeracy: Measurement and geometry: Understanding units of measurement

Content description

AC9M1M01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Comparing and ordering objects

• uses direct comparison to compare 2 2 2 objects and indicates whether they are the same or different based on attributes such as length, height, mass or capacity (e.g. compares the length of 2 2 2 objects by aligning the ends; pours sand or water from one container to another to decide which holds more; hefts to decide which is heavier)

• uses comparative language to compare 2 2 2 objects (e.g. states which is shorter or longer, lighter or heavier)

• orders 3 3 3 or more objects by comparing pairs of objects (e.g. decides where to stand in a line ordered by height by comparing their height to others directly)

Using informal units of measurement

• measures an attribute by choosing and using multiple identical, informal units (e.g. measures the distance from one goal post to the other by counting out footsteps; chooses to count out loud to 30 30 3 0 to give enough time for people to hide in a game of hide and seek)

• selects the appropriate size and dimensions of an informal unit to measure and compare attributes (e.g. chooses a linear unit such as a pencil to measure length, or a bucket to measure the capacity of a large container)
• chooses and uses appropriate uniform informal units to measure length and area without gaps or overlaps (e.g. uses the same sized paper clips to measure the length of a line; uses tiles, rather than counters, to measure the area of a sheet of paper because the tiles fit together without gaps)
• uses multiple uniform informal units to measure and make direct comparisons between the mass or capacity of objects (e.g. uses a balance scale and a number of same-sized marbles to compare mass; uses a number of cups of water or buckets of sand to measure capacity)
• counts the individual uniform units used by ones to compare measurements (e.g. counts the number of matchsticks and says, "I used 4 4 4 matchsticks to measure the width of my book and the shelf is 5 5 5 matchsticks wide, so I know my book will fit")

Estimating measurements

• estimates a measurement based on a number of uniform informal units (e.g. estimates the measurement as "about 4 4 4 handspans" or it takes about 2 2 2 buckets of water)
• checks an estimate using informal units to compare to predicted measurement

Repeating a single informal unit to measure

• measures length using a single informal unit repeatedly (e.g. uses one paper clip to measure the length of a line, making the first unit, marking its place, then moving the paper clip along the line and repeating this process)
• measures the area of a surface using an informal single unit of measure repeatedly (e.g. uses a sheet of paper to measure the area of a desktop)
• measures an attribute by counting the number of informal units used

Estimating measurements

• uses familiar household items as benchmarks when estimating, length, mass and capacity (e.g. compares capacities based on knowing the capacity of a bottle of water such as, "it will take about 3 3 3 bottles to fill")

Describing turns

• describes a turn in both direction and the amount of turn (e.g. a quarter turn to the right, a full turn on the spot)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)

• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")

• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences

• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Measuring time

Numeracy: Measurement and geometry: Measuring time

Content description

AC9M1M01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Sequencing time

• uses the language of time to describe events in relation to past, present and future (e.g. "yesterday I...", "today I ...", "tomorrow I will ...", "next week I will ...")
• applies an understanding of passage of time to sequence events using everyday language (e.g. "I play sport on the weekend and have training this afternoon"; "the bell is going to go soon"; "we have cooking tomorrow")
• uses direct comparison to compare time duration of 2 2 2 actions, knowing they must begin the actions at the same time (e.g. who can put their shoes on in the shortest time)
• measures time duration by counting and using informal units (e.g. counts to 30 30 3 0 while children hide when playing hide and seek)

Units of time

• uses and justifies the appropriate unit of time to describe the duration of events (e.g. uses minutes to describe time taken to clean teeth; uses hours to describe the duration of a long-distance car trip)
• identifies that the clockface is a circle subdivided into 12 12 1 2 parts and uses these to allocate hour markers
• identifies that hour markers on a clock can also represent quarter-hour and half-hour marks and shows that there is a minute hand and an hour hand on a clock
• identifies the direction of clockwise and anticlockwise relating it to the hands of the clock
• reads time on analog clocks to the hour, half-hour and quarter-hour
• names and orders days of the week and months of the year
• uses a calendar to identify the date and determine the number of days in each month

AC9M1M02

the length of and using , recognising that need to be uniform and used end-to-end

•
•

Elaborations

• using 2 2 2 different ; for example, pop sticks and pencils, to the length of an such as a desk, and explaining why the number of used may be different
• comparing the length of 2 2 2 such as a desk and a bookshelf by laying multiple copies of a unit and to say which is longer and how much longer; explaining why they shouldn’t have gaps or overlaps between the as this will change the length of the unit
• measuring the distance between 2 2 2 locations using footsteps, comparing the results and explaining why there may be different results; for example, referring to the different length of footsteps as using different
• measuring and comparing the length of using blocks; for example, comparing the height of 2 2 2 toys by stacking blocks one on top of the other and how many it takes to reach the height of each to decide which is taller

Students learn to:

measure the length of shapes and objects using informal units, recognising that un

uniform and used end-to-end

(AC9M1M02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

Measurement and geometry

• Understanding units of measurement

Number sense and algebra

• Counting processes

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9S1I03
AC9S1U03

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Understanding units of measurement

Numeracy: Measurement and geometry: Understanding units of measurement

Content description

AC9M1M02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Comparing and ordering objects

• uses direct comparison to compare 2 2 2 objects and indicates whether they are the same or different based on attributes such as length, height, mass or capacity (e.g. compares the length of 2 2 2 objects by aligning the ends; pours sand or water from one container to another to decide which holds more; hefts to decide which is heavier)
• uses comparative language to compare 2 2 2 objects (e.g. states which is shorter or longer, lighter or heavier)
• orders 3 3 3 or more objects by comparing pairs of objects (e.g. decides where to stand in a line ordered by height by comparing their height to others directly)

Using informal units of measurement

• measures an attribute by choosing and using multiple identical, informal units (e.g. measures the distance from one goal post to the other by counting out footsteps; chooses to count out loud to 30 30 3 0 to give enough time for people to hide in a game of hide and seek)
• selects the appropriate size and dimensions of an informal unit to measure and compare attributes (e.g. chooses a linear unit such as a pencil to measure length, or a bucket to measure the capacity of a large container)
• chooses and uses appropriate uniform informal units to measure length and area without gaps or overlaps (e.g. uses the same sized paper clips to measure the length of a line; uses tiles, rather than counters, to measure the area of a sheet of paper because the tiles fit together without gaps)
• uses multiple uniform informal units to measure and make direct comparisons between the mass or capacity of objects (e.g. uses a balance scale and a number of same-sized marbles to compare mass; uses a number of cups of water or buckets of sand to measure capacity)
• counts the individual uniform units used by ones to compare measurements (e.g. counts the number of matchsticks and says, "I used 4 4 4 matchsticks to measure the width of my book and the shelf is 5 5 5 matchsticks wide, so I know my book will fit")

Estimating measurements

• estimates a measurement based on a number of uniform informal units (e.g. estimates the measurement as "about 4 4 4 handspans" or it takes about 2 2 2 buckets of water)
• checks an estimate using informal units to compare to predicted measurement

Repeating a single informal unit to measure

• measures length using a single informal unit repeatedly (e.g. uses one paper clip to measure the length of a line, making the first unit, marking its place, then moving the paper clip along the line and repeating this process)
• measures the area of a surface using an informal single unit of measure repeatedly (e.g. uses a sheet of paper to measure the area of a desktop)
• measures an attribute by counting the number of informal units used

Estimating measurements

• uses familiar household items as benchmarks when estimating, length, mass and capacity (e.g. compares capacities based on knowing the capacity of a bottle of water such as, "it will take about 3 3 3 bottles to fill")

Describing turns

• describes a turn in both direction and the amount of turn (e.g. a quarter turn to the right, a full turn on the spot)

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1M02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• counts in stable counting order from one within a known number range (e.g. engages with counting in nursery rhymes, songs and children's literature)

Perceptual counting

• conceptually subitises a collection up to 5 5 5 (e.g. recognises a collection of 5 5 5 items as a result of perceptually subitising smaller parts such as 3 3 3 and 2 2 2)

• counts a small number of items typically less than 4 4 4

• engages in basic counting during play-based activities such as cooking or shopping (e.g. places 3 3 3 bananas in a shopping basket one at a time and says " 1 , 2 , 3 1, 2, 3 1 , 2 , 3 ")

Counting sequences

• counts forward by one using the full counting sequence to determine the number before or after a given number, within the range of 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes after 6 6 6 , counts from one in sequence up to 7 7 7 then says "it's 7 7 7 "; when asked what number comes before 6 6 6 , counts from one, 1 , 2 , 3 , 4 , 5 , 6 1, 2, 3, 4, 5, 6 1 , 2 , 3 , 4 , 5 , 6 and responds "its 5 5 5 ")

Perceptual counting

• matches the count to objects, using one-to-one correspondence (e.g. counts visible or orderly items by ones; may use objects, tally marks, bead strings, sounds or fingers to count; identifies that 2 2 2 sirens means it is lunchtime)

• determines that the last number said in a count names the quantity or total of that collection (e.g. when asked "how many" after they have counted the collection, repeats the last number in the count and indicates that it refers to the number of items in the collection)

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from a number in the range 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes directly after 8 8 8 , immediately responds with " 9 9 9 " without needing to count from one)

• continues a count starting from a number other than one

Perceptual counting

• interprets the count independently of the type of objects being counted (e.g. a quantity of 5 5 5 counters is the same quantity as 5 5 5 basketball courts)

• counts a collection, keeping track of items that have been counted and those that haven't been counted yet to ensure they are only counted exactly once (e.g. when asked to count a pile of blocks, moves each block to the side as it is counted)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)

• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1M02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

AC9M1M03

describe the and sequence of using years, months, weeks, days and hours

•
•

Elaborations

• naming, listing and using familiar of time, such as hours, days, weeks, years
• comparing the number of days in the months of the year and explaining how the months cycle from one year to the next
• sequencing familiar including the representation of time with pictorial timelines
• discussing and activities and deciding whether they would take closer to an hour, a day, a week, a month or a year; for example, it takes a day for the sun to rise and fall and rise again, but it takes less than an hour for me to walk to school
• investigating of time represented in First Nations Australians' seasonal calendars

Students learn to:

describe the duration and sequence of events using years, months, weeks, days an

(AC9M1M03)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Inquiring

• Identify, process and evaluate information

Measurement and geometry

• Measuring time

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Inquiring

• Identify, process and evaluate information

Speaking and listening

• Speaking

Inquiring

• Identify, process and evaluate information

Generating

• Create possibilities

Inquiring

• Identify, process and evaluate information

Measurement and geometry

• Measuring time

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

People

• First Nations Australians have sophisticated political, economic and social organisation systems, which include family and kinship structures, laws, traditions, customs, land tenure systems, and protocols for strong governance and authority.

Related content

This content description can be taught with the following content descriptions from other learning areas.
AC9HS1S02
AC9S1U02

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

- identify and explore relevant points in information provided on a topic
- prioritise the information that is most relevant to the topic of study
- identify and explore relevant information from a range of sources, including visual information and digital sources
- identify and explain similarities and differences in selected information
- identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
- condense and combine selected information related to the topic of study

Snapshot – Measuring time

Numeracy: Measurement and geometry: Measuring time

Content description

AC9M1M03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Sequencing time

- uses the language of time to describe events in relation to past, present and future (e.g. "yesterday I...", "today I ...", "tomorrow I will ...", "next week I will ...")
- applies an understanding of passage of time to sequence events using everyday language (e.g. "I play sport on the weekend and have training this afternoon"; "the bell is going to go soon"; "we have cooking tomorrow")
- uses direct comparison to compare time duration of 2 2 2 actions, knowing they must begin the actions at the same time (e.g. who can put their shoes on in the shortest time)
- measures time duration by counting and using informal units (e.g. counts to 30 30 3 0 while children hide when playing hide and seek)

Units of time

- uses and justifies the appropriate unit of time to describe the duration of events (e.g. uses minutes to describe time taken to clean teeth; uses hours to describe the duration of a long-distance car trip)
- identifies that the clockface is a circle subdivided into 12 12 1 2 parts and uses these to allocate hour markers
- identifies that hour markers on a clock can also represent quarter-hour and half-hour marks and shows that there is a minute hand and an hour hand on a clock
- identifies the direction of clockwise and anticlockwise relating it to the hands of the clock
- reads time on analog clocks to the hour, half-hour and quarter-hour
- names and orders days of the week and months of the year
- uses a calendar to identify the date and determine the number of days in each month

Measuring time

- uses standard instruments and units to describe and measure time to hours, minutes and seconds (e.g. measures time using a stopwatch; sets a timer on an appliance; estimates the time it would take to walk to the other side of the school oval and uses minutes as the unit of measurement)
- reads and interprets different representations of time (e.g. reads the time on an analog clock, watch or digital clock; uses lap times on a stop watch or fitness app)
- identifies the minute hand movement on an analog clock and the 60 60 6 0 -minute markings, interpreting the numbers as representing lots of 5 5 5 (e.g. interprets the time on an analog clock

to read 7 7 7 : 40 40 4 0 , by reading the hour hand and the minute hand and explaining how they are related)
• uses smaller units of time such as seconds to record duration of events (e.g. records reaction times in sports or in relation to safe driving)
• uses a calendar to calculate time intervals in days and weeks, bridging months (e.g. develops fitness plans, tracks growth and development progress and sets realistic personal and health goals using a calendar)

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M03

Continuum extract

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• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1M03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
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• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Create possibilities

Critical and Creative Thinking: Generating: Create possibilities

Content description

AC9M1M03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use imagination to create possibilities by exploring and connecting ideas in ways that are new to them
• create possibilities by connecting or creatively expanding on ideas in ways that are new to them
• create possibilities by connecting or creatively expanding on new and known ideas in a variety of ways

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1M03

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Measuring time

Numeracy: Measurement and geometry: Measuring time

Content description

AC9M1M03

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Sequencing time

• uses the language of time to describe events in relation to past, present and future (e.g. "yesterday I...", "today I ...", "tomorrow I will ...", "next week I will ...")
• applies an understanding of passage of time to sequence events using everyday language (e.g. "I play sport on the weekend and have training this afternoon"; "the bell is going to go soon"; "we have cooking tomorrow")
• uses direct comparison to compare time duration of 2 2 2 actions, knowing they must begin the actions at the same time (e.g. who can put their shoes on in the shortest time)
• measures time duration by counting and using informal units (e.g. counts to 30 30 3 0 while children hide when playing hide and seek)

Units of time

• uses and justifies the appropriate unit of time to describe the duration of events (e.g. uses minutes to describe time taken to clean teeth; uses hours to describe the duration of a long-distance car trip)
• identifies that the clockface is a circle subdivided into 12 12 1 2 parts and uses these to allocate hour markers
• identifies that hour markers on a clock can also represent quarter-hour and half-hour marks and shows that there is a minute hand and an hour hand on a clock
• identifies the direction of clockwise and anticlockwise relating it to the hands of the clock
• reads time on analog clocks to the hour, half-hour and quarter-hour
• names and orders days of the week and months of the year
• uses a calendar to identify the date and determine the number of days in each month

Measuring time

• uses standard instruments and units to describe and measure time to hours, minutes and seconds (e.g. measures time using a stopwatch; sets a timer on an appliance; estimates the time it would take to walk to the other side of the school oval and uses minutes as the unit of measurement)
• reads and interprets different representations of time (e.g. reads the time on an analog clock, watch or digital clock; uses lap times on a stop watch or fitness app)
• identifies the minute hand movement on an analog clock and the 60 60 6 0 -minute markings, interpreting the numbers as representing lots of 5 5 5 (e.g. interprets the time on an analog clock to read 7 7 7 : 40 40 4 0 , by reading the hour hand and the minute hand and explaining how they are related)
• uses smaller units of time such as seconds to record duration of events (e.g. records reaction times in sports or in relation to safe driving)
• uses a calendar to calculate time intervals in days and weeks, bridging months (e.g. develops fitness plans, tracks growth and development progress and sets realistic personal and health goals using a calendar)

AC9M1SP01

make, compare and classify familiar ; recognise familiar and in the environment, identifying the similarities and differences between them

•

•

Elaborations

• classifying a collection of , including different , ovals, regular and , triangles and , saying what is the same about the in a group and what is different between the groups

• selecting a from a small collection of inside a bag and describing the by feel, so that others can name the and give reasons for their choice

• comparing the different that can be built out of the same number of blocks or centi-cubes and discussing the differences between them

• exploring string games used in story telling by First Nations Australians; for example, Karda from the Yandruwandha Peoples of north-east South Australia, recognising, comparing, describing and classifying the made by the string and their relationship to and on

Students learn to:

make, compare and classify familiar shapes; recognise familiar shapes and objects environment, identifying the similarities and differences between them

(AC9M1SP01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Analysing

• Interpret concepts and problems

Generating

• Consider alternatives

Inquiring

• Identify, process and evaluate information

Measurement and geometry

• Understanding geometric properties

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Generating

• Put ideas into action

Statistics and probability

• Interpreting and representing data

Analysing

• Interpret concepts and problems

• Draw conclusions and provide reasons

Speaking and listening

• Speaking

Generating

• Consider alternatives

Analysing

• Draw conclusions and provide reasons

Generating

• Consider alternatives

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

People

• First Nations Australians have sophisticated political, economic and social organisation systems, which include family and kinship structures, laws, traditions, customs, land tenure systems, and protocols for strong governance and authority.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9TDE2P01

Resources

Work Samples

WS01 - Equilateral triangles

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem
• consider alternatives and explore different or creative ways to approach a task or problem
• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Understanding geometric properties

Numeracy: Measurement and geometry: Understanding geometric properties

Content description

AC9M1SP01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Familiar shapes and objects

• uses everyday language to describe and compare shapes and objects (e.g. round, small, flat,

pointy)
• locates and describes similar shapes and objects in the environment (e.g. when playing a game of netball or football describes and locates the centre circle; uses a collection of objects with a similar shape or objects as subject matter for a visual artwork, and documents the similarities and differences between each object that has inspired their work)
• names familiar shapes in the environment (e.g. recognises circles, triangles, and rectangles in the design of the school)

Angles

• identifies and describes a turn in either direction (e.g. turn the doorknob clockwise; turn to your left)

Features of shapes and objects

• identifies and describes features of shapes and objects (e.g. sides, corners, faces, edges and vertices)
• sorts and classifies familiar shapes and objects based on obvious features (e.g. triangles have 3 3 3 sides; a sphere is round like a ball)

Transformations

• identifies features of shapes and objects of different sizes and in different orientations in the environment (e.g. identifies a rotated view of an object made out of centicubes; compares representation of familiar shapes and objects in visual artworks from different cultures, times and places commenting on their features)
• explains that the shape or object does not change when presented in different orientations (e.g. a square remains a square when rotated)

Angles

• identifies angles in the environment (e.g. an angle formed when a door is opened; identifies that there are 4 4 4 angles in a square)

Properties of shapes and objects

• identifies the relationship between the number of sides of a two-dimensional shape and the number of vertices (e.g. if the shape has 4 4 4 sides, it has 4 4 4 vertices)
• describes and identifies the two-dimensional shapes that form the faces of three-dimensional objects (e.g. recognises the faces of a triangular prism as triangles and rectangles)
• represents shapes and objects (e.g. drawing and sketching; model building such as skeletal models and centi-cubes; using digital drawing packages; manipulates body to create shapes and objects when choreographing dance)

Transformations

• determines whether a shape has line symmetry (e.g. folds paper cut-outs of basic shapes to demonstrate which has line symmetry and which does not)
• identifies symmetry in the environment
• identifies and creates geometrical patterns involving the repetition of familiar shapes (e.g. uses pattern blocks to create a pattern and describes how the pattern was created)

Angles

• compares angles to a right angle, classifying them as greater than, less than or equal to a right angle

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Put ideas into action

Critical and Creative Thinking: Generating: Put ideas into action

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• put ideas into action through trial-and-error experiences
• put ideas into action by experimenting with options and predicting possible results
• put ideas into action by predicting an outcome, trialling options and assessing their effectiveness

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1SP01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)
• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)
• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)
• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)
• displays and describes one variable data in lists or tables
• communicates information through text, picture graphs and tables using numbers and symbols (e.g. creates picture graphs to display one-variable data)
• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1SP01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the

bears would be hungry.")

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem
• consider alternatives and explore different or creative ways to approach a task or problem
• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Consider alternatives

Critical and Creative Thinking: Generating: Consider alternatives

Content description

AC9M1SP01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• consider alternatives by suggesting a different way to approach a given task or problem
• consider alternatives and explore different or creative ways to approach a task or problem
• consider alternatives by comparing different or creative ways to approach a task, issue or problem and recommend a preferred option

Resource – WS01 - Equilateral triangles

By the end of Year 1, students connect number names, numerals and quantities, and order numbers to at least 120.■They demonstrate how one- and two-digit numbers can be partitioned in different ways and that two-digit numbers can be partitioned into tens and ones.■Students partition collections into equal groups and skip count in twos, fives or tens to quantify collections to at least 120. They solve problems involving addition and subtraction of numbers to 20 and use mathematical modelling to solve practical problems involving addition, subtraction, equal sharing and grouping, using calculation strategies. Students use numbers, symbols and objects to create skip counting and repeating patterns, identifying the repeating unit.

They compare and order objects and events based on the attributes of length, mass, capacity and duration, communicating reasoning.■Students measure the length of shapes and objects using uniform informal units.■They make, compare and classify shapes and objects using obvious features. Students give and follow directions to move people and objects within a space.

They collect and record categorical data, create one-to-one displays, and compare and discuss the data using frequencies.

AC9MFN02

partition one- and two-digit numbers in different ways using physical and virtual materials, including partitioning two-digit numbers into tens and ones

AC9M1N04

add and subtract numbers within 20, using physical and virtual materials, part-part-whole knowledge to 10 and a variety of calculation strategies

AC9M1A02

recognise, continue and create repeating patterns with numbers, symbols, shapes and objects, identifying the repeating unit

AC9M1SP01

make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them

AC9M1SP02

give and follow directions to move people and to different locations within a space

•

•

Elaborations

• interpreting and following directions around familiar locations, and understanding the meaning and importance of the words when giving directions; for example, using words like “forwards” and “backwards”, “straight ahead”, “left or right” to describe movement and giving instructions like “Keep going straight until you reach the end of this passage and then turn to your right”
• creating and following an algorithm consisting of a of instructions to move an to a different location; for example, role-playing being a robot and following step-by-step instructions given by another classmate to move from one place to another, only moving as instructed
• following directions to move people into different positions within a using both ordinal and positional language to describe their position; for example, directly comparing heights and following directions using ordinal and positional language to up in height order
• describing a familiar journey across using

Students learn to:

give and follow directions to move people and objects to different locations within a

(AC9M1SP02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Speaking and listening

• Speaking

Measurement and geometry

• Positioning and locating

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems

Speaking and listening

• Speaking

Analysing

• Interpret concepts and problems

Speaking and listening

• Interacting

Speaking and listening

• Speaking

Measurement and geometry

• Understanding units of measurement

Speaking and listening

• Speaking

Country/Place

• First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9ADA2C01
AC9HP2M01
AC9HP2M02
AC9S1U03
AC9TDI2P02

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• speaks in short phrases or simple sentences about familiar objects, people or events
• uses simple language to express feelings and needs and make simple requests (e.g. "I'm thirsty"; "Can I have a pencil?")
• makes simple requests
• indicates a preference when offered a choice (e.g. selects a fruit from a bowl)
• uses simple, appropriate personal greetings

Vocabulary

• uses a small range of familiar words
• names common items from the environment or pictures
• uses mainly correct word order in simple sentences

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Snapshot – Positioning and locating

Numeracy: Measurement and geometry: Positioning and locating

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Position to self

• locates positions in the classroom relevant to self (e.g. hangs their hat on their own hook, puts materials in their own tray; says "my bag is under my desk")
• orients self to other positions in the classroom (e.g. collects a box of scissors from the shelf at the back of the classroom)
• follows simple instructions using positional language (e.g. "please stand near the door", "you can sit on your chair", "put your pencil case in your bag", "crawl through the tunnel")

Position to other

• uses positional terms with reference to themselves (e.g. "sit next to me", "you stood in front of me", "this is my left hand")
• interprets a simple diagram or picture to describe the position of an object in relation to other objects (e.g. "the house is between the river and the school")
• gives and follows simple directions to move from one place to another using familiar reference points (e.g. "walk past the flagpole around the vegetable patch and you will find Mr Smith’s classroom")

Using informal maps and plans

• draws an informal map or sketch to provide directions (e.g. draws a dance map when planning choreography; sketches the pathway to provide directions for a robotic vehicle to move from one location to another within a space)
• describes and locates relative positions on an informal map or plan (e.g. locates the starting position for the cross-country race using an informal map of the course; uses a seating plan to describe where they sit relative to the teacher’s desk)
• orients an informal map using recognisable landmarks and current location (e.g. orients a map to show the location of the audience and locates the entry and exit points of the school gymnasium)
• locates self on an informal map to select an appropriate path to a given location

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1SP02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1SP02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Interacting

Literacy: Speaking and listening: Interacting

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

• contributes simple ideas and opinions to class or small group discussions
• shows signs of active listening, by sustaining attention across a short, spoken text
• shows beginning awareness of discussion conventions (e.g. pauses when another speaker starts)
• uses appropriate language or dialect to interact with speakers of the same language
• listens actively to stay on topic in a small group discussion
• takes an active role in small group and whole-class discussion by volunteering ideas and opinions
• asks relevant questions for clarification or to find out others' ideas (e.g. "What do you think about that?")
• takes turns in interactions
• interacts using appropriate language in pairs or a small group to complete tasks
• interacts to extend and elaborate ideas in a discussion (e.g. provides an additional example)
• presents simple ideas clearly in group situations
• actively encourages or supports other speakers
• shows awareness of discussion conventions (e.g. uses appropriate language to express agreement and disagreement in class discussions)
• uses language to initiate interactions in a small group situation (e.g. "I have an idea")

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)

• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)
• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

Snapshot – Understanding units of measurement

Numeracy: Measurement and geometry: Understanding units of measurement

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Describing the size of objects

• uses gestures and informal language to identify the size of objects (e.g. holds hands apart and says "it's this big")
• uses everyday language to describe attributes in absolute terms that can be measured (e.g. "my tower is tall", "this box is heavy", "it is warm today")

Comparing and ordering objects

• uses direct comparison to compare 2 2 2 objects and indicates whether they are the same or different based on attributes such as length, height, mass or capacity (e.g. compares the length of 2 2 2 objects by aligning the ends; pours sand or water from one container to another to decide which holds more; hefts to decide which is heavier)
• uses comparative language to compare 2 2 2 objects (e.g. states which is shorter or longer, lighter or heavier)
• orders 3 3 3 or more objects by comparing pairs of objects (e.g. decides where to stand in a line ordered by height by comparing their height to others directly)

Using informal units of measurement

• measures an attribute by choosing and using multiple identical, informal units (e.g. measures the distance from one goal post to the other by counting out footsteps; chooses to count out loud to 30 30 3 0 to give enough time for people to hide in a game of hide and seek)
• selects the appropriate size and dimensions of an informal unit to measure and compare attributes (e.g. chooses a linear unit such as a pencil to measure length, or a bucket to measure the capacity of a large container)
• chooses and uses appropriate uniform informal units to measure length and area without gaps or overlaps (e.g. uses the same sized paper clips to measure the length of a line; uses tiles, rather than counters, to measure the area of a sheet of paper because the tiles fit together without gaps)
• uses multiple uniform informal units to measure and make direct comparisons between the mass or capacity of objects (e.g. uses a balance scale and a number of same-sized marbles to compare mass; uses a number of cups of water or buckets of sand to measure capacity)
• counts the individual uniform units used by ones to compare measurements (e.g. counts the number of matchsticks and says, "I used 4 4 4 matchsticks to measure the width of my book and the shelf is 5 5 5 matchsticks wide, so I know my book will fit")

Estimating measurements

• estimates a measurement based on a number of uniform informal units (e.g. estimates the measurement as "about 4 4 4 handspans" or it takes about 2 2 2 buckets of water)
• checks an estimate using informal units to compare to predicted measurement

Snapshot – Speaking

Literacy: Speaking and listening: Speaking

Content description

AC9M1SP02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Crafting ideas

• retells personal events and experiences to peers and known adults
• shares feelings and thoughts about the events and characters in text
• retells key details or points from a learning experience or text viewed or heard
• uses mainly appropriate word order
• uses appropriate volume for small audiences
• uses rehearsed phrases to introduce themselves (e.g. "Good morning, my name is …")

Vocabulary

• uses simple connectives to join ideas (e.g. "and then") (see Grammar)
• uses familiar spoken language to communicate connected ideas (e.g. "Let's draw. I'll get paper and pencils.")
• uses simple adjectives and adverbs to add detail (e.g. "yellow", "quickly") (see Grammar)
• uses a small range of qualifying adjectives (e.g. "nice", "good") (see Grammar)
• uses simple language to compare and contrast (e.g. "smaller", "more")
• uses common time and causal connectives to relate ideas (e.g. "then", "because") (see Grammar)

Crafting ideas

• creates short texts using a few connected sentences, on familiar and learnt topics (e.g. retells a familiar story or describes a process)
• speaks audibly and clearly to a familiar audience (e.g. own class)
• uses some extended sentences
• organises key ideas in logical sequence
• provides some supporting details
• expresses causal relationships (e.g. "when the egg cracked, the chicken came out")
• provides simple justifications (e.g. "I chose cherries because they are red.")
• uses some varying intonation or volume for emphasis
• regulates pace with pausing

Vocabulary

• uses some precise vocabulary from learning areas
• uses connectives to sequence ideas (e.g. "first", "then", "next", "finally") (see Grammar)

• uses vocabulary to express cause and effect (e.g. "The excursion was cancelled because it rained.")
• uses some modal language to influence or persuade (e.g. "should", "will") (see Grammar)

Crafting ideas

• creates spoken texts for a range of purposes across learning areas (e.g. explains how the mathematics problem was solved)
• uses complex sentence constructions including relative clauses (e.g. "The boy who drew the picture got a prize.") (see Grammar)
• adjusts register according to purpose and audience
• elaborates on ideas using a short sequence of sentences
• incorporates learnt content into spoken text
• sequences ideas and events appropriately
• uses mainly correct grammatical constructions (e.g. pronoun references; noun-verb agreement)
• varies volume and intonation to suit purpose and audience
• plans and delivers spoken presentations using appropriate structure and language
• includes video and audio enhancements to spoken texts, where appropriate (e.g. includes slides or pictures in a spoken presentation)

Vocabulary

• experiments with vocabulary drawn from a variety of sources
• uses adverbials to give more precise meaning to verbs (e.g. talking loudly) (see Grammar)
• uses a range of vocabulary to indicate connections (e.g. consequences)
• uses conditional vocabulary to expand upon ideas (e.g. "If Goldilocks ate all the porridge the bears would be hungry.")

AC9M1ST01

acquire and record for in various ways including using , , images, drawings, lists, tally marks and symbols

•
•

Elaborations

• discussing methods of collecting to answer a question, such as “What types of rubbish are found in the playground?”, sharing ideas and trying out some of the suggested methods; reviewing the collected and explaining how they might change the way they collect next time
• collecting and recording information on a topic of interest using lists; for example, “how many people follow a particular football team” or “what colour eyes each person has”; examining the , to generate some questions that it could answer, then rearranging the or collecting different to answer the question
• creating a tally to record while observing such as the year level of students using the bike shed; deciding on the possible categories before the observations are taken, then reviewing the afterwards to notice whether the tally was effective
• using star charts with stickers or emojis to represent class ; for example, using emojis on a personal feeling chart to represent how they are feeling each day or using emojis to represent activities on the class calendar
• role-playing being a chatbot asking simple yes/no questions and collecting , and representing the using virtual manipulatives, stickers or emojis
• exploring ways of representing, sharing and communicating through stories and symbols used by First Nations Australians

Students learn to:

acquire and record data for categorical variables in various ways including using di objects, images, drawings, lists, tally marks and symbols

(AC9M1ST01)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Investigating

• Acquire and collate data

• Interpret data

Statistics and probability

• Interpreting and representing data

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Speaking and listening

• Interacting

Analysing

• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Analysing

• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Number sense and algebra

• Counting processes

Self-awareness

• Emotional awareness

Creating and exchanging

• Create, communicate and collaborate

Investigating

• Interpret data

Statistics and probability

• Interpreting and representing data

Navigating intercultural contexts

• Adapt in intercultural exchanges

Culture

• First Nations Australian societies are diverse and have distinct cultural expressions such as language, customs and beliefs. As First Nations Peoples of Australia, they have the right to maintain, control, protect and develop their cultural expressions, while also maintaining the right to control, protect and develop culture as Indigenous Cultural and Intellectual Property.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HS1S02

AC9S1I03

AC9TDI2K02

Snapshot – Acquire and collate data

Digital Literacy: Investigating: Acquire and collate data

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• collect data by counting, measuring and observing with familiar digital tools

• collect and access data using a range of digital tools and methods in response to a defined question

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use simple digital tools to explore sorting data and information provided as part of learning experiences

• classify and group data using digital familiar tools to answer simple questions

• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1ST01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)

• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)

• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)

• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)

• displays and describes one variable data in lists or tables

• communicates information through text, picture graphs and tables using numbers and symbols (e.g. creates picture graphs to display one-variable data)

• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Collecting, displaying and interpreting categorical data

• designs survey questions to collect categorical data (e.g. creates a suite of survey questions to plan the end of year class party)

• collects, records and displays one-variable data in variety of ways such as tables, charts, plots and graphs using the appropriate digital tools (e.g. uses a spreadsheet to record data collected in a class survey and generates a column graph to display the results)

• displays and interprets categorical data in one-to-many data displays

• interprets and represents categorical data in simple displays such as bar and column graphs, pie charts, models, maps, colour wheels, and pictorial timelines, and makes simple inferences from such displays

• makes comparisons from categorical data displays using relative heights from a common baseline (e.g. compares the heights of the columns in a simple column graph to determine the tallest and recognises this as the most frequent response)

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made

• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Interacting

Literacy: Speaking and listening: Interacting

Content description

AC9M1ST01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.
• contributes simple ideas and opinions to class or small group discussions
• shows signs of active listening, by sustaining attention across a short, spoken text
• shows beginning awareness of discussion conventions (e.g. pauses when another speaker starts)
• uses appropriate language or dialect to interact with speakers of the same language
• listens actively to stay on topic in a small group discussion
• takes an active role in small group and whole-class discussion by volunteering ideas and opinions
• asks relevant questions for clarification or to find out others' ideas (e.g. "What do you think about that?")
• takes turns in interactions
• interacts using appropriate language in pairs or a small group to complete tasks
• interacts to extend and elaborate ideas in a discussion (e.g. provides an additional example)
• presents simple ideas clearly in group situations
• actively encourages or supports other speakers
• shows awareness of discussion conventions (e.g. uses appropriate language to express agreement and disagreement in class discussions)
• uses language to initiate interactions in a small group situation (e.g. "I have an idea")

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1ST01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from any starting point within the range 1 – 100 1–100 1 – 1 0 0

Perceptual counting

• matches known numerals to collections of up to 20 20 2 0 , counting items using a one-to-one correspondence
• uses zero to denote when no objects are present (e.g. when asked "how many cards have you got?" and has no cards left, says "zero")
• counts objects in a collection independent of the order, appearance or arrangement (e.g. understands that counting 7 7 7 people in a row from left to right is the same as counting them from right to left)

Counting sequences

• continues counting from any number forwards and backwards beyond 100 100 1 0 0 using knowledge of place value
• counts in sequence by twos and fives starting at zero (e.g. counts items using number rhymes " 2 , 4 , 6 , 8 2, 4, 6, 8 2 , 4 , 6 , 8 Mary's at the cottage gate …"; skip counts in fives as " 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 ")
• counts in sequence forwards and backwards by tens on the decade up to 100 100 1 0 0

Perceptual counting

• counts items in groups of twos, fives and tens (e.g. counts a quantity of 10 10 1 0 -cent pieces as 10 , 20 , 30 10, 20, 30 1 0 , 2 0 , 3 0 … to give the total value of the coins; counts the number of students by twos when lined up in pairs)

Counting sequences

• counts in sequence forwards and backwards by tens or fives off the decade to 100 100 1 0 0 and by hundreds up to 1000 1000 1 0 0 0 and beyond using knowledge of place value (e.g. 2 , 12 , 22 2, 12, 22 2 , 1 2 , 2 2 … or 8 , 13 , 18 , 23 8, 13, 18, 23 8 , 1 3 , 1 8 , 2 3 ; 100 , 200 100, 200 1 0 0 , 2 0 0 … 1000 1000 1 0 0 0)

Perceptual counting

• counts large quantities in groups or multiples (e.g. groups items into piles of 10 10 1 0 , then counts the piles, adding on the residual to quantify the whole collection)
• estimates the number of items to count to assist with determining group sizes (e.g. decides that counting in twos would not be the most efficient counting strategy based on a quick estimate of the quantity and decides instead to use groups of 10 10 1 0)

Snapshot – Emotional awareness

Personal and Social capability: Self-awareness: Emotional awareness

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• identify their own emotional responses
• describe the emotional responses of themselves and others
• explain the influence that their own behaviour has on the emotional responses of others

Snapshot – Create, communicate and collaborate

Digital Literacy: Creating and exchanging: Create, communicate and collaborate

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use simple digital tools to create content
• experiment with the features of familiar digital tools to create content
• use the core features of a range of digital tools to create content and communicate and collaborate with peers and trusted adults

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.
• use simple digital tools to explore sorting data and information provided as part of learning experiences
• classify and group data using digital familiar tools to answer simple questions
• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1ST01

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)
• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)
• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)
• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)
• displays and describes one variable data in lists or tables
• communicates information through text, picture graphs and tables using numbers and symbols (e.g. creates picture graphs to display one-variable data)
• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Collecting, displaying and interpreting categorical data

• designs survey questions to collect categorical data (e.g. creates a suite of survey questions to plan the end of year class party)
• collects, records and displays one-variable data in variety of ways such as tables, charts, plots and graphs using the appropriate digital tools (e.g. uses a spreadsheet to record data collected in a class survey and generates a column graph to display the results)
• displays and interprets categorical data in one-to-many data displays
• interprets and represents categorical data in simple displays such as bar and column graphs, pie charts, models, maps, colour wheels, and pictorial timelines, and makes simple inferences from such displays
• makes comparisons from categorical data displays using relative heights from a common baseline (e.g. compares the heights of the columns in a simple column graph to determine the tallest and recognises this as the most frequent response)

Snapshot – Adapt in intercultural exchanges

Intercultural Understanding: Navigating intercultural contexts: Adapt in intercultu

Content description

AC9M1ST01

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify how people show respect in intercultural exchanges
• consider different responses to intercultural exchanges, practising ways to show respect and develop empathy
• use perspective-taking to develop understanding, examining how familiar intercultural exchanges influence thinking and behaviour

AC9M1ST02

represent collected for a categorical variable using one-to-one displays and where appropriate; compare the using frequencies and discuss the findings

•
•

Elaborations

• creating a pictograph with or drawings; discussing the possible categories for the pictograph, arranging the or drawings into the categories, then reflecting on the chosen categories and deciding

whether they were helpful
• translating from a list or pictorial display into a tally chart to make easier; describing what the tally chart is showing, by referring to the categories; using by fives to compare the numbers within each category and explaining how the tally chart answers the question
• recognising that when there is no for a particular category you may choose whether or not to include it in your display, and use a or blank for that category depending on the purpose of the collection or presentation; for example, creating a birthday calendar for the class and discussing that there are no students born in May and therefore there are no names listed
• representing with and drawings where one or drawing represents one value; describing the displays and explaining patterns that have been created using strategies to determine the of responses
• discussing what in terms of the total count for a particular category and relating the highest to being the most popular category in the collected
• exploring First Nations Australian children's instructive games; for example, Kolap from Mer Island in the Torres Strait region, recording the outcomes, representing and discussing the results

Students learn to:

represent collected data for a categorical variable using one-to-one displays and dig where appropriate; compare the data using frequencies and discuss the findings

(AC9M1ST02)

General capabilities and cross-curriculum priorities

This content description connects to the following general capabilities and cross-curriculum priorities.

Investigating

• Interpret data

Number sense and algebra

• Counting processes

Statistics and probability

• Interpreting and representing data

Elaborations

Content elaborations provide suggestions of ways to teach the content description and connect it to general capabilities and cross-curriculum priorities. Content elaborations are optional .

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Inquiring

• Identify, process and evaluate information

Number sense and algebra

• Counting processes
• Multiplicative strategies

Analysing

• Interpret concepts and problems
• Draw conclusions and provide reasons

Number sense and algebra

• Counting processes

Analysing

• Interpret concepts and problems

Number sense and algebra

• Counting processes

Statistics and probability

• Interpreting and representing data

Culture

• First Nations Australian societies are diverse and have distinct cultural expressions such as language, customs and beliefs. As First Nations Peoples of Australia, they have the right to maintain, control, protect and develop their cultural expressions, while also maintaining the right to control, protect and develop culture as Indigenous Cultural and Intellectual Property.

People

• Australia has 2 distinct First Nations Peoples; each encompasses a diversity of nations across Australia. Aboriginal Peoples are the first peoples of Australia and have occupied the Australian continent for more than 60,000 years. Torres Strait Islander Peoples are the First Nations Peoples of the Torres Strait and have occupied the region for over 4,000 years.

Related content

This content description can be taught with the following content descriptions from other learning areas.

AC9HS1S02
AC9HS1S03
AC9S1I03
AC9S1I04

Snapshot – Interpret data

Digital Literacy: Investigating: Interpret data

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• use simple digital tools to explore sorting data and information provided as part of learning experiences
• classify and group data using digital familiar tools to answer simple questions
• organise, summarise and visualise data using a range of digital tools to identify patterns and answer questions

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• counts in stable counting order from one within a known number range (e.g. engages with counting in nursery rhymes, songs and children’s literature)

Perceptual counting

• conceptually subitises a collection up to 5 5 5 (e.g. recognises a collection of 5 5 5 items as a result of perceptually subitising smaller parts such as 3 3 3 and 2 2 2)
• counts a small number of items typically less than 4 4 4
• engages in basic counting during play-based activities such as cooking or shopping (e.g. places 3 3 3 bananas in a shopping basket one at a time and says " 1 , 2 , 3 1, 2, 3 1 , 2 , 3 ")

Counting sequences

• counts forward by one using the full counting sequence to determine the number before or after a given number, within the range of 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes after 6 6 6 , counts from one in sequence up to 7 7 7 then says "it’s 7 7 7 "; when asked what number comes before 6 6 6 , counts from one, 1 , 2 , 3 , 4 , 5 , 6 1, 2, 3, 4, 5, 6 1 , 2 , 3 , 4 , 5 , 6 and responds "its 5 5 5 ")

Perceptual counting

• matches the count to objects, using one-to-one correspondence (e.g. counts visible or orderly items by ones; may use objects, tally marks, bead strings, sounds or fingers to count; identifies that 2 2 2 sirens means it is lunchtime)
• determines that the last number said in a count names the quantity or total of that collection (e.g. when asked "how many" after they have counted the collection, repeats the last number in the count and indicates that it refers to the number of items in the collection)

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from a number in the range 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes directly after 8 8 8 ,

immediately responds with " 9 9 9 " without needing to count from one)
• continues a count starting from a number other than one

Perceptual counting

• interprets the count independently of the type of objects being counted (e.g. a quantity of 5 5 5 counters is the same quantity as 5 5 5 basketball courts)
• counts a collection, keeping track of items that have been counted and those that haven't been counted yet to ensure they are only counted exactly once (e.g. when asked to count a pile of blocks, moves each block to the side as it is counted)

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)
• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)
• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)
• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)
• displays and describes one variable data in lists or tables
• communicates information through text, picture graphs and tables using numbers and symbols (e.g. creates picture graphs to display one-variable data)
• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Collecting, displaying and interpreting categorical data

• designs survey questions to collect categorical data (e.g. creates a suite of survey questions to plan the end of year class party)
• collects, records and displays one-variable data in variety of ways such as tables, charts, plots and graphs using the appropriate digital tools (e.g. uses a spreadsheet to record data collected in a class survey and generates a column graph to display the results)
• displays and interprets categorical data in one-to-many data displays
• interprets and represents categorical data in simple displays such as bar and column graphs, pie charts, models, maps, colour wheels, and pictorial timelines, and makes simple inferences from such displays
• makes comparisons from categorical data displays using relative heights from a common baseline (e.g. compares the heights of the columns in a simple column graph to determine the tallest and recognises this as the most frequent response)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made
• draw conclusions and make choices when completing tasks and explain the reasons for choices made
• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Identify, process and evaluate information

Critical and Creative Thinking: Inquiring: Identify, process and evaluate informati

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify and explore relevant points in information provided on a topic
• prioritise the information that is most relevant to the topic of study
• identify and explore relevant information from a range of sources, including visual information and digital sources
• identify and explain similarities and differences in selected information
• identify and examine relevant information and opinion from a range of sources, including visual information and digital sources
• condense and combine selected information related to the topic of study

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from any starting point within the range 1 – 100 1–100 1 – 1 0 0

Perceptual counting

• matches known numerals to collections of up to 20 20 2 0 , counting items using a one-to-one correspondence
• uses zero to denote when no objects are present (e.g. when asked "how many cards have you got?" and has no cards left, says "zero")
• counts objects in a collection independent of the order, appearance or arrangement (e.g. understands that counting 7 7 7 people in a row from left to right is the same as counting them from right to left)

Counting sequences

• continues counting from any number forwards and backwards beyond 100 100 1 0 0 using knowledge of place value
• counts in sequence by twos and fives starting at zero (e.g. counts items using number rhymes " 2 , 4 , 6 , 8 2, 4, 6, 8 2 , 4 , 6 , 8 Mary's at the cottage gate …"; skip counts in fives as " 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 ")
• counts in sequence forwards and backwards by tens on the decade up to 100 100 1 0 0

Perceptual counting

• counts items in groups of twos, fives and tens (e.g. counts a quantity of 10 10 1 0 -cent pieces as 10 , 20 , 30 10, 20, 30 1 0 , 2 0 , 3 0 … to give the total value of the coins; counts the number of students by twos when lined up in pairs)

Counting sequences

• counts in sequence forwards and backwards by tens or fives off the decade to 100 100 1 0 0 and by hundreds up to 1000 1000 1 0 0 0 and beyond using knowledge of place value (e.g. 2 , 12 , 22 2, 12, 22 2 , 1 2 , 2 2 … or 8 , 13 , 18 , 23 8, 13, 18, 23 8 , 1 3 , 1 8 , 2 3 ; 100 , 200 100, 200 1 0 0 , 2 0 0 … 1000 1000 1 0 0 0)

Perceptual counting

• counts large quantities in groups or multiples (e.g. groups items into piles of 10 10 1 0 , then counts the piles, adding on the residual to quantify the whole collection)

• estimates the number of items to count to assist with determining group sizes (e.g. decides that counting in twos would not be the most efficient counting strategy based on a quick estimate of the quantity and decides instead to use groups of 10 10 1 0)

Snapshot – Multiplicative strategies

Numeracy: Number sense and algebra: Multiplicative strategies

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Forming equal groups

• shares collections equally by dealing (e.g. distributes all items one-to-one until they are exhausted, checking that the final groups are equal)

• makes equal groups and counts by ones to determine the total

Perceptual multiples

• uses groups or multiples in counting and sharing physical or virtual materials (e.g. skip counts by twos, fives or tens with all objects visible)

• represents authentic situations involving equal sharing and equal grouping with drawings and physical or virtual materials (e.g. draws a picture to represent 4 4 4 tables that seat 6 6 6 people to determine how many chairs they will need; uses 8 8 8 counters to represent sharing $ 8 \$8 $ 8 between 4 4 4 friends)

Figurative (imagined units)

• uses perceptual markers to represent concealed quantities of equal amounts to determine the total number of items (e.g. to count how many whiteboard markers are in 4 4 4 packs, knows they come in packs of 5 5 5 and counts the number of markers as 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem

• identify the main parts of a concept or problem and describe how these relate to each other

• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Draw conclusions and provide reasons

Critical and Creative Thinking: Analysing: Draw conclusions and provide reasons

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• draw conclusions and make choices when completing tasks and identify the reasons for choices made

• draw conclusions and make choices when completing tasks and explain the reasons for choices made

• draw conclusions and make choices when completing tasks, using observation and prior knowledge to provide reasons and construct arguments for choices made

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Counting sequences

• counts in stable counting order from one within a known number range (e.g. engages with counting in nursery rhymes, songs and children’s literature)

Perceptual counting

• conceptually subitises a collection up to 5 5 5 (e.g. recognises a collection of 5 5 5 items as a result of perceptually subitising smaller parts such as 3 3 3 and 2 2 2)
• counts a small number of items typically less than 4 4 4
• engages in basic counting during play-based activities such as cooking or shopping (e.g. places 3 3 3 bananas in a shopping basket one at a time and says " 1 , 2 , 3 1, 2, 3 1 , 2 , 3 ")

Counting sequences

• counts forward by one using the full counting sequence to determine the number before or after a given number, within the range of 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes after 6 6 6 , counts from one in sequence up to 7 7 7 then says "it’s 7 7 7 "; when asked what number comes before 6 6 6 , counts from one, 1 , 2 , 3 , 4 , 5 , 6 1, 2, 3, 4, 5, 6 1 , 2 , 3 , 4 , 5 , 6 and responds "its 5 5 5 ")

Perceptual counting

• matches the count to objects, using one-to-one correspondence (e.g. counts visible or orderly items by ones; may use objects, tally marks, bead strings, sounds or fingers to count; identifies that 2 2 2 sirens means it is lunchtime)
• determines that the last number said in a count names the quantity or total of that collection (e.g. when asked "how many" after they have counted the collection, repeats the last number in the count and indicates that it refers to the number of items in the collection)

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from a number in the range 1 – 10 1–10 1 – 1 0 (e.g. when asked what number comes directly after 8 8 8 , immediately responds with " 9 9 9 " without needing to count from one)
• continues a count starting from a number other than one

Perceptual counting

• interprets the count independently of the type of objects being counted (e.g. a quantity of 5 5 5 counters is the same quantity as 5 5 5 basketball courts)
• counts a collection, keeping track of items that have been counted and those that haven’t been counted yet to ensure they are only counted exactly once (e.g. when asked to count a pile of blocks, moves each block to the side as it is counted)

Snapshot – Interpret concepts and problems

Critical and Creative Thinking: Analysing: Interpret concepts and problems

Content description

AC9M1ST02

Continuum extract

The following continuum extract shows the alignment of the continuum with this content.

• identify the main parts of a concept or problem
• identify the main parts of a concept or problem and describe how these relate to each other
• identify and prioritise significant elements and relationships within a concept or problem

Snapshot – Counting processes

Numeracy: Number sense and algebra: Counting processes

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this

content.

Counting sequences

• uses knowledge of the counting sequence to determine the next number or previous number from any starting point within the range 1 – 100 1–100 1 – 1 0 0

Perceptual counting

• matches known numerals to collections of up to 20 20 2 0 , counting items using a one-to-one correspondence

• uses zero to denote when no objects are present (e.g. when asked "how many cards have you got?" and has no cards left, says "zero")

• counts objects in a collection independent of the order, appearance or arrangement (e.g. understands that counting 7 7 7 people in a row from left to right is the same as counting them from right to left)

Counting sequences

• continues counting from any number forwards and backwards beyond 100 100 1 0 0 using knowledge of place value

• counts in sequence by twos and fives starting at zero (e.g. counts items using number rhymes " 2 , 4 , 6 , 8 2, 4, 6, 8 2 , 4 , 6 , 8 Mary's at the cottage gate …"; skip counts in fives as " 5 , 10 , 15 , 20 5, 10, 15, 20 5 , 1 0 , 1 5 , 2 0 ")

• counts in sequence forwards and backwards by tens on the decade up to 100 100 1 0 0

Perceptual counting

• counts items in groups of twos, fives and tens (e.g. counts a quantity of 10 10 1 0 -cent pieces as 10 , 20 , 30 10, 20, 30 1 0 , 2 0 , 3 0 … to give the total value of the coins; counts the number of students by twos when lined up in pairs)

Counting sequences

• counts in sequence forwards and backwards by tens or fives off the decade to 100 100 1 0 0 and by hundreds up to 1000 1000 1 0 0 0 and beyond using knowledge of place value (e.g. 2 , 12 , 22 2, 12, 22 2 , 1 2 , 2 2 … or 8 , 13 , 18 , 23 8, 13, 18, 23 8 , 1 3 , 1 8 , 2 3 ; 100 , 200 100, 200 1 0 0 , 2 0 0 … 1000 1000 1 0 0 0)

Perceptual counting

• counts large quantities in groups or multiples (e.g. groups items into piles of 10 10 1 0 , then counts the piles, adding on the residual to quantify the whole collection)

• estimates the number of items to count to assist with determining group sizes (e.g. decides that counting in twos would not be the most efficient counting strategy based on a quick estimate of the quantity and decides instead to use groups of 10 10 1 0)

Snapshot – Interpreting and representing data

Numeracy: Statistics and probability: Interpreting and representing data

Content description

AC9M1ST02

Learning progression extract

The following learning progression extract shows the alignment of the learning progression with this content.

Emergent data collection and representation

• poses and answers simple questions and collects responses (e.g. collects data from a simple yes/no question by getting respondents to form a line depending upon their answer)

• displays information using real objects, drawings or photographs (e.g. collects leaves from outside the classroom and displays them in order of size)

• sorts and classifies shapes and objects into groups based on their features or characteristics and describes how they have been sorted (e.g. sorts objects by colour)

• identifies things that vary or stay the same in everyday life (e.g. "it is always dark at night"; "although jellybeans are the same size, they can be different colours")

Basic one-to-one data displays

• poses questions that could be investigated from a simple numerical or categorical data set (e.g. number of family members, types of pets, where people live)

• displays and describes one variable data in lists or tables

• communicates information through text, picture graphs and tables using numbers and symbols (e.g.

creates picture graphs to display one-variable data)
• responds to questions and interprets general observations made about data represented in simple one-to-one data displays (e.g. responds to questions about the information represented in a simple picture graph that uses a one-to-one representation)

Collecting, displaying and interpreting categorical data

• designs survey questions to collect categorical data (e.g. creates a suite of survey questions to plan the end of year class party)
• collects, records and displays one-variable data in variety of ways such as tables, charts, plots and graphs using the appropriate digital tools (e.g. uses a spreadsheet to record data collected in a class survey and generates a column graph to display the results)
• displays and interprets categorical data in one-to-many data displays
• interprets and represents categorical data in simple displays such as bar and column graphs, pie charts, models, maps, colour wheels, and pictorial timelines, and makes simple inferences from such displays
• makes comparisons from categorical data displays using relative heights from a common baseline (e.g. compares the heights of the columns in a simple column graph to determine the tallest and recognises this as the most frequent response)