Year 1 plan — Australian Curriculum: Mathematics

Implementation year: School name:

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| Identify curriculum | Year level description | The proficiency strands *Understanding*, *Fluency*, *Problem* *Solving* and *Reasoning* are an integral part of mathematics content across the three content strands: *Number* *and* *Algebra*, *Measurement* *and* *Geometry*, and *Statistics* *and* *Probability*. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics.At this year level:*Understanding* includes connecting names, numerals and quantities, and partitioning numbers in various ways*Fluency* includes counting number in sequences readily forward and backwards, locating numbers on a line, and naming the days of the week*Problem* *Solving* includes using materials to model authentic problems, giving and receiving directions to unfamiliar places, and using familiar counting sequences to solve unfamiliar problems and discussing the reasonableness of the answer*Reasoning* includes explaining direct and indirect comparisons of length using uniform informal units, justifying representations of data, and explaining patterns that have been created. |
| Achievement standard | By the end of Year 1, students describe number sequences resulting from skip counting by 2s, 5s and 10s. They identify representations of one half. They recognise Australian coins according to their value. Students explain time durations. They describe two-dimensional shapes and three-dimensional objects. Students describe data displays.Students count to and from 100 and locate numbers on a number line. They carry out simple additions and subtractions using counting strategies. They partition numbers using place value. They continue simple patterns involving numbers and objects. Students order objects based on lengths and capacities using informal units. They tell time to the half hour. They use the language of direction to move from place to place. Students classify outcomes of simple familiar events. They collect data by asking questions and draw simple data displays. |
| Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum v3.0: Mathematics for Foundation–10*, <www.australiancurriculum.edu.au/Mathematics/Curriculum/F-10>. |
| Teaching and learning | Term overview | Term 1 | Term 2 | Term 3 | Term 4 |
| During this term children will:* make connections with prior learning
* explore numbers to 100, including partitioning and the use of number lines
* skip count by twos, fives and tens
* recognise part–whole relationships
* compare the length and capacity of objects
* sort coins
* tell time to the half-hour
* describe duration using months, weeks days and hours
* sort, describe and recognise familiar 2-D shapes and 3-D objects
* connect days of the week to familiar events and actions
* describe position and movement
* use the language of chance
* choose simple questions and gather responses
* represent data with objects and drawings.
 | During this term children will:* make connections with prior learning
* investigate, explore, and describe patterns in number, including partitioning and the use of number lines
* skip count by twos, fives and tens
* recognise and describe one-half as one of two equal parts of a whole
* measure using uniform informal units
* describe attributes of coins
* tell time to the half-hour
* describe duration using months, weeks days and hours
* classify 2-D shapes and 3-D objects according to obvious features
* connect days of the week to familiar events and actions
* give and follow directions to familiar locations
* identify outcomes of familiar events involving chance
* choose simple questions and gather responses
* represent data with objects and drawings.
 | **Exemplar unit: Measure and compare drink bottles** During this term children will:* make connections with prior learning
* apply knowledge of number, including addition, subtraction and partitioning, to practical situations
* skip count by twos, fives and tens
* describe one-half as one of two equal parts of a whole
* measure and compare two objects
* recognise coins and make comparisons
* tell time to the half-hour
* describe duration using months, weeks days and hours
* classify 2-D shapes and 3-D objects according to obvious features
* connect days of the week to familiar events and actions
* give and follow directions to familiar locations
* identify outcomes of familiar events involving chance
* choose simple questions and gather responses
* represent data with objects and drawings.
 | During this term children will:* make connections with prior learning
* apply knowledge of number, including addition, subtraction and partitioning, to practical situations
* skip count by twos, fives and tens
* describe one-half as one of two equal parts of a whole
* make comparisons in practical applications
* recognise coins and make comparisons
* tell time to the half-hour
* describe duration using months, weeks days and hours
* classify 2-D shapes and 3-D objects according to obvious features
* connect days of the week to familiar events and actions
* give and follow directions to familiar locations
* identify outcomes of familiar events involving chance
* choose simple questions and gather responses
* represent data with objects and drawings.
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| Teaching and learning | Aboriginal and Torres Strait Islander perspectives | Mathematics provides opportunities for children to strengthen their appreciation and understanding of Aboriginal peoples and Torres Strait Islander peoples and their living cultures. Specific content and skills within relevant sections of the curriculum can be drawn upon to encourage engagement with:* Aboriginal and Torres Strait Islander frameworks of knowing and ways of learning
* Social, historical and cultural contexts associated with different uses of mathematical concepts in Australian Indigenous societies
* Aboriginal peoples’ and Torres Strait Islander peoples’ contributions to Australian society and cultures.

Mathematics provides opportunities to explore aspects of Australian Indigenous knowing in connection to, and with guidance from, the communities who own them. Using a respectful inquiry approach, children have the opportunity to explore mathematical concepts in Aboriginal and Torres Strait Islander lifestyles including knowledge of number, space, measurement and time. Through these experiences, children have opportunities to learn that Aboriginal peoples and Torres Strait Islander peoples have sophisticated applications of mathematical concepts which may be applied in other peoples’ ways of knowing.  |
| General capabilities and cross‑curriculum priorities | Opportunities to engage with:gc_literacygc_numeracygc_criticalcc_asia | Opportunities to engage with:gc_literacygc_numeracygc_criticalcc_asia | Opportunities to engage with:gc_literacygc_numeracygc_ictgc_criticalgc_personal_socialcc_asia | Opportunities to engage with:gc_literacygc_numeracygc_criticalcc_asia |
| Key to general capabilities and cross-curriculum priorities | gc_literacy Literacy  gc_numeracy Numeracy  gc_ict ICT capability  gc_critical Critical and creative thinking  gc_ethical Ethical behaviour  gc_personal_social Personal and social capability  gc_intercultural Intercultural understanding Aboriginal and Torres Strait Islander histories and cultures  cc_asia Asia and Australia’s engagement with Asia  cc_sust Sustainability |
| Develop assessment | AssessmentFor advice and guidelines on assessment, see [www.qsa.qld.edu.au](http://www.qsa.qld.edu.au) | An assessment folio is a targeted collection of a child’s work for ongoing review and analysis, and for reporting a child’s achievement and progress at a point in time. Administrators and teachers determine the evidence that will be collected to demonstrate a pattern of achievement within the child’s learning across the Australian Curriculum and the remaining Queensland learning areas, where applicable. |
| Term 1 | Term 2 | Term 3 | Term 4 |
| Week | Assessment instrument | Week | Assessment instrument | Week | Assessment instrument | Week | Assessment instrument |
| 2–10 | Observation record:* compare the length and capacity of objects
* tell time to the half-hour
* describe duration using months, weeks, days and hours
* sort, describe and recognise familiar 2-D shapes and 3-D objects
* gather responses to simple questions.

The assessment package *Show me half* in the QSA Assessment Bank could be used in this term. | 2–10 | Observation record:* measure using uniform informal units
* describe attributes of coins
* tell time to the half-hour
* describe duration using months, weeks, days and hours
* describe position and movement
* choose simple questions and gather responses.
 | 2–10 | Observation record:* tell time to the half-hour
* describe duration using months, weeks, days and hours
* give and follow directions to familiar locations
* identify outcomes of familiar events involving chance
* gather responses and represent data with objects and drawings.
 | 2–10 | Observation record:* recognise coins and make comparisons
* classify 2-D shapes and 3-D objects according to obvious features
* identify outcomes of familiar events involving chance
* choose simple questions, gather responses and represent data with objects and drawings.
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| 3–4 | Modelling and problem-solving task (Demonstration)Create number lines. | 4–5 | Modelling and problem-solving task (Multimodal)Investigate patterns in number. | 2 | Mathematical investigation (Demonstration)Measure and compare drink bottles.The assessment package *Walter’s water bottles* in the QSA Assessment Bank could be used as an assessment in this unit. | 3–4 | Modelling and problem-solving task (Multimodal)Where’s the treasure? Give and follow directions to locate the missing treasure. |
| 7–10 | Mathematical investigation (Demonstration)Investigate partitioning to 20. | 7–8 | Modelling and problem-solving task (Demonstration)Classify 2-D shapes and 3-D objects. | 4–5 | Supervised assessment: Short response (Written)Recognise and compare coins. | 5–6 | Mathematical investigation: Journal (Written) Connect days of the week to familiar events and actions and tell the time to the half-hour. |

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| Develop assessment |  |  |  |  |  | 9–10 | Modelling and problem-solving task (Demonstration)Skip count by twos, fives and tens. | 8–9 | Supervised assessment: Short response (Written)Use mental and written addition and subtraction strategies. |
| **Feb** | **Literacy And Numeracy Checkpoint Assessments** | **Jun** | **Literacy And Numeracy Checkpoint Assessments**  |  |  | **Oct** | **Literacy And Numeracy Checkpoint Assessments**  |
| Make judgments and use feedback | Moderation | Teachers and children develop tasks.Teachers meet to discuss term focus, range of techniques and success criteria to develop consistency of judgments. | Curriculum leaders randomly sample folios to check for consistency of teacher judgments.Curriculum leaders and teachers participate in Literacy And Numeracy Checkpoint Assessments to ensure consistency of judgments. | Teachers moderate randomly sampled folios for consistency of judgments.Teachers moderate for implementation of course (task design, etc.).Teachers moderate folios to identify A–E samples to take to cluster moderation in Term 4. | School cluster moderates representative folios.Teachers meet to ensure consistency of judgments to inform future planning.Teachers review checkpoints and samples and moderate to ensure consistency of judgments.  |

Year 1 Mathematics: review for balance and coverage of content descriptions

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| Number and Algebra | 1 | 2 | 3 | 4 |
| Number and place value |
| Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero [(ACMNA012)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA012) | ✓ | ✓ | ✓ | ✓ |
| Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line [(ACMNA013)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA013) | ✓ | ✓ | ✓ | ✓ |
| Count collections to 100 by partitioning numbers using place [(ACMNA014)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA014) | ✓ | ✓ | ✓ | ✓ |
| Represent and solve simple addition and subtraction problems using a range of strategies including counting, partitioning and rearranging parts [(ACMNA015)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA015) | ✓ | ✓ | ✓ | ✓ |
| Fractions and decimals |
| Recognise and describe one-half as one of two equal parts of a whole [(ACMNA016)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA016) | ✓ | ✓ | ✓ | ✓ |
| Money and financial mathematics |
| Recognise, describe and order Australian coins according to their value [(ACMNA017)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA017) | ✓ | ✓ | ✓ | ✓ |
| Patterns and algebra |
| Investigate and describe number patterns formed by skip counting and patterns with objects [(ACMNA018)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMNA018) | ✓ | ✓ | ✓ | ✓ |

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| **Measurement and Geometry** | **1** | **2** | **3** | **4** |
| Using units of measurement |
| Measure and compare the lengths and capacities of pairs of objects using uniform informal units [(ACMMG019)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG019) | ✓ | ✓ | ✓ | ✓ |
| Tell time to the half-hour [(ACMMG020)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG020) | ✓ | ✓ | ✓ | ✓ |
| Describe duration using months, weeks, days and hours [(ACMMG021)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG021) | ✓ | ✓ | ✓ | ✓ |
| Shape |
| Recognise and classify familiar two-dimensional shapes and three-dimensional objects using obvious features [(ACMMG022)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG022) | ✓ | ✓ | ✓ | ✓ |
| Location and transformation |
| Give and follow directions to familiar locations [(ACMMG023)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG023) | ✓ | ✓ | ✓ | ✓ |

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| **Statistics and Probability** | **1** | **2** | **3** | **4** |
| Chance |
| Identify outcomes of familiar events involving chance and describe them using everyday language such as ‘will happen’, ‘won’t happen’ or ‘might happen’ [(ACMSP024)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMSP024) | ✓ | ✓ | ✓ | ✓ |
| Data representation and interpretation |
| Choose simple questions and gather responses [(ACMSP262)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMSP262) | ✓ | ✓ | ✓ | ✓ |
| Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays [(ACMSP263)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMSP263) | ✓ | ✓ | ✓ | ✓ |

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), *Australian Curriculum v3.0: Mathematics for Foundation–10*, <www.australiancurriculum.edu.au/Mathematics/Curriculum/F-10>.