Prep to Year 7 unit overview for multiple year levels   
Australian Curriculum: Mathematics

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

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| School name | Conceptual thread | Unit title | Year levels | Duration of unit |
| Our School | Comparisons of units of measurement | Nothing compares | Prep to Year 7 | 3 weeks |

| Unit outline |
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| The big idea for this unit is that comparing and measuring helps us to discover the world around us and allows us to solve real-world problems.  The inquiry questions for this unit include:   * What is the language of measurement? * What makes a good way of measuring capacity, length or mass? * Which measuring tool will give the most accurate measurement? * How do I compare two or more objects? * How can we explain our measurements? * Where do we use measurement in our world?   Additional inquiry questions for Years 5 to 7 for this unit include:   * What is the relationship between area and perimeter? * What is the relationship between volume and capacity? |

Outlining the conceptual threads

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| Measurement and geometry conceptual thread  Comparisons of units of measurement | | | | | | | |
| Prep | | Years 1 to 2 | | Years 3 to 4 | | Years 5 to 7 | |
| * Direct comparison of length, mass and capacity | | * Comparison using uniform informal units | | * Use of familiar metric units to measure * Measurement and comparison of lengths, masses and capacities | | * Calculation of measurements * Use of metric units for calculations * Use of the concept of area | |
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| Elements of the conceptual thread across Prep to Year 4 | | |  | | Elements of the conceptual thread across Years 3 to 7 | | |
| * Comparisons of units of measurement | | | * Use of metric units of measurement | | |
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|  | Elements of the conceptual thread across Prep to Year 7 | | | | | |  |
| * Comparisons of measurements | | | | | |

| Identify curriculum | | | | |
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| Content descriptions to be taught | | | | |
| Prep to Year 2 | | | | |
| Number and Algebra | | Measurement and Geometry | | Statistics and Probability |
|  | Prep  Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language [(ACMMG006)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG006)  Year 1  Measure and compare the lengths and capacities of pairs of objects using uniform informal units [(ACMMG019)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG019)  Year 2  Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units[(ACMMG037)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG037)  Compare masses of objects using balance scales [(ACMMG038)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG038) | |  | |

| Identify curriculum | | |
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| Content descriptions to be taught | | |
| Years 3 to 4 | | |
| Number and Algebra | Measurement and Geometry | Statistics and Probability |
|  | Year 3  Measure, order and compare objects using familiar metric units of length, mass and capacity [(ACMMG061)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG061)  Year 4  Use scaled instruments to measure and compare lengths, masses, capacities and temperatures [(ACMMG084)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG084)  Compare objects using familiar metric units of area and volume [(ACMMG290)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG290) |  |

| Identify curriculum | | |
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| Content descriptions to be taught | | |
| Years 5 to 7 | | |
| Number and Algebra | Measurement and Geometry | Statistics and Probability |
|  | Year 5  Choose appropriate units of measurement for length, area, volume, capacity and mass [(ACMMG108)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG108)  Calculate the perimeter and area of rectangles using familiar metric units [(ACMMG109)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG109)  Year 6  Convert between common metric units of length, mass and capacity [(ACMMG136)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG136)  Solve problems involving the comparison of lengths and areas using appropriate units [(ACMMG137)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG137)  Connect volume and capacity and their units of measurement [(ACMMG138)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG138)  Year 7  Establish the formulas for areas of rectangles, triangles and parallelograms and use these in problem solving [(ACMMG159)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG159)  Calculate volumes of rectangular prisms [(ACMMG160)](http://www.australiancurriculum.edu.au/Curriculum/ContentDescription/ACMMG160) |  |

| Identify curriculum |
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| General capabilities and cross-curriculum priorities |
| Description: Description: Description: gc_literacy Literacy   * Develop the language of comparison and measurement   Description: Description: Description: gc_numeracy Numeracy   * Develop skills through measuring, comparing and calculating   Description: Description: Description: gc_ict **ICT capability**   * Use ICTs to represent solutions and explain reasoning   Description: Description: Description: gc_critical Critical and creative thinking   * Show reasoning to measure and compare capacities |

| Identify curriculum | |
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| Achievement standard | |
| Prep | By the end of the Foundation year, students make connections between number names, numerals and quantities up to 10. They compare objects using mass, length and capacity. Students connect events and the days of the week. They explain the order and duration of events. They use appropriate language to describe location.  Students count to and from 20 and order small collections. They group objects based on common characteristics and sort shapes and objects. Students answer simple questions to collect information. |
| Year 1 | 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. |
| Year 2 | By the end of Year 2, students recognise increasing and decreasing number sequences involving 2s, 3s and 5s. They represent multiplication and division by grouping into sets. They associate collections of Australian coins with their value. Students identify the missing element in a number sequence. Students recognise the features of three-dimensional objects. They interpret simple maps of familiar locations. They explain the effects of one-step transformations. Students make sense of collected information.  Students count to and from 1000. They perform simple addition and subtraction calculations using a range of strategies. They divide collections and shapes into halves, quarters and eighths. Students order shapes and objects using informal units. They tell time to the quarter hour and use a calendar to identify the date and the months included in seasons. They draw two- dimensional shapes. They describe outcomes for everyday events. Students collect data from relevant questions to create lists, tables and picture graphs. |
| Year 3 | By the end of Year 3, students recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication. They model and represent unit fractions. They represent money values in various ways. Students identify symmetry in the environment. They match positions on maps with given information. Students recognise angles in real situations. They interpret and compare data displays.  Students count to and from 10 000. They classify numbers as either odd or even. They recall addition and multiplication facts for single digit numbers. Students correctly count out change from financial transactions. They continue number patterns involving addition and subtraction. Students use metric units for length, mass and capacity. They tell time to the nearest minute. Students make models of three-dimensional objects. Students conduct chance experiments and list possible outcomes. They carry out simple data investigations for categorical variables. |
| Year 4 | By the end of Year 4, students choose appropriate strategies for calculations involving multiplication and division. They recognise common equivalent fractions in familiar contexts and make connections between fraction and decimal notations up to two decimal places. Students solve simple purchasing problems. They identify unknown quantities in number sentences. They describe number patterns resulting from multiplication. Students compare areas of regular and irregular shapes using informal units. They solve problems involving time duration. They interpret information contained in maps. Students identify dependent and independent events. They describe different methods for data collection and representation, and evaluate their effectiveness.  Students use the properties of odd and even numbers. They recall multiplication facts to 10 x 10 and related division facts. Students locate familiar fractions on a number line. They continue number sequences involving multiples of single digit numbers. Students use scaled instruments to measure temperatures, lengths, shapes and objects. They convert between units of time. Students create symmetrical shapes and patterns. They classify angles in relation to a right angle. Students list the probabilities of everyday events. They construct data displays from given or collected data. |
| Year 5 | By the end of Year 5, students solve simple problems involving the four operations using a range of strategies. They check the reasonableness of answers using estimation and rounding. Students identify and describe factors and multiples. They explain plans for simple budgets. Students connect three-dimensional objects with their two-dimensional representations. They describe transformations of two-dimensional shapes and identify line and rotational symmetry. Students compare and interpret different data sets.  Students order decimals and unit fractions and locate them on number lines. They add and subtract fractions with the same denominator. Students continue patterns by adding and subtracting fractions and decimals. They find unknown quantities in number sentences. They use appropriate units of measurement for length, area, volume, capacity and mass, and calculate perimeter and area of rectangles. They convert between 12 and 24 hour time. Students use a grid reference system to locate landmarks. They measure and construct different angles. Students list outcomes of chance experiments with equally likely outcomes and assign probabilities between 0 and 1. Students pose questions to gather data, and construct data displays appropriate for the data. |
| Year 6 | By the end of Year 6, students recognise the properties of prime, composite, square and triangular numbers. They describe the use of integers in everyday contexts. They solve problems involving all four operations with whole numbers. Students connect fractions, decimals and percentages as different representations of the same number. They solve problems involving the addition and subtraction of related fractions. Students make connections between the powers of 10 and the multiplication and division of decimals. They describe rules used in sequences involving whole numbers, fractions and decimals. Students connect decimal representations to the metric system and choose appropriate units of measurement to perform a calculation. They make connections between capacity and volume. They solve problems involving length and area. They interpret timetables. Students describe combinations of transformations. They solve problems using the properties of angles. Students compare observed and expected frequencies. They interpret and compare a variety of data displays including those displays for two categorical variables. They evaluate secondary data displayed in the media.  Students locate fractions and integers on a number line. They calculate a simple fraction of a quantity. They add, subtract and multiply decimals and divide decimals where the result is rational. Students calculate common percentage discounts on sale items. They write correct number sentences using brackets and order of operations. Students locate an ordered pair in any one of the four quadrants on the Cartesian plane. They construct simple prisms and pyramids. Students list and communicate probabilities using simple fractions, decimals and percentages. |
| Year 7 | By the end of Year 7, students solve problems involving the comparison, addition and subtraction of integers. They make the connections between whole numbers and index notation and the relationship between perfect squares and square roots. They solve problems involving percentages and all four operations with fractions and decimals. They compare the cost of items to make financial decisions. Students represent numbers using variables. They connect the laws and properties for numbers to algebra. They interpret simple linear representations and model authentic information. Students describe different views of three-dimensional objects. They represent transformations in the Cartesian plane. They solve simple numerical problems involving angles formed by a transversal crossing two parallel lines. Students identify issues involving the collection of continuous data. They describe the relationship between the median and mean in data displays.  Students use fractions, decimals and percentages, and their equivalences. They express one quantity as a fraction or percentage of another. Students solve simple linear equations and evaluate algebraic expressions after numerical substitution. They assign ordered pairs to given points on the Cartesian plane. Students use formulas for the area and perimeter of rectangles and calculate volumes of rectangular prisms. Students classify triangles and quadrilaterals. They name the types of angles formed by a transversal crossing parallel line. Students determine the sample space for simple experiments with equally likely outcomes and assign probabilities to those outcomes. They calculate mean, mode, median and range for data sets. They construct stem-and-leaf plots and dot-plots. |
| Links to other learning areas | |
| This unit could link to a Science unit related to chemistry in the kitchen, where students measure everyday items to investigate scientific questions. | |

| Assessment |
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| Assessment overview |
| Children/students are given opportunities to demonstrate their knowledge, skills and understanding through both formative and summative assessment. The assessment is collated in individual assessment folios and allows for ongoing feedback to children/students on their learning.  Teachers make decisions about the length of time required to complete the tasks and the conditions under which the assessment is to be conducted.  The teaching and learning experiences throughout the term provide opportunities for children/students to develop the understanding and skills required to complete these assessments. As children/students engage with these learning experiences, the teacher can provide feedback on specific skills. |

| Assessment | | |
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| Describe the assessment |  | Make judgments |
| Multiple investigations can be undertaken throughout the teaching and learning experiences.  Teachers select an appropriate context that is applicable to their school setting and available resources.  An investigation could focus on the concepts of length, capacity and mass within the context of an athletics carnival or across several Physical Education lessons and could include activities such as long jump, shot-put, sprints and ball games. |  | Teachers gather evidence to make judgments about the following characteristics of children’s work:  Prep and Year 1  Understanding   * description of choices made, strategies used, and checks of reasonableness of answers * modelling and representation of situations   Skills   * appropriate recall and use of mathematical facts, concepts, calculations and procedures * communication of calculations, answers and explanations, using basic mathematical language, conventions and symbols   Year 2  Understanding   * description of choices made, strategies used, and checks of reasonableness of answers * modelling and representation of situations |
| Prep to Year 2  Length investigation — Prep to Year 2  During events involving lengths, children measure and compare jumps (long jump), throws (shot-put) or distances travelled (sprints).  Prep   * Use direct and indirect comparisons to decide which jump, throw or distance is longer.   Year 1   * Measure and compare **pairs** of jumps, throws or distances using uniform informal units. * Select the uniform informal unit in which they measure, e.g. hand span, pencil case, book, shoe, piece of string.   Year 2   * Measure, compare and order **several** jumps, throws or distances using uniform informal units. * Select the uniform informal unit in which they measure, e.g. hand span, pencil case, book, shoe, piece of string. | Ongoing — driven by the developmental sequence of the unit. |
| Capacity investigation — Prep to Year 2  The teacher supplies a range of objects to compare capacities. These could include cups, mugs, bottles, buckets, measuring cups and spoons. Children use the materials to investigate capacity.  Prep   * Use direct and indirect comparisons to decide if one object holds more than another object. * Explain their reasoning in everyday language.   Year 1   * Measure and compare the capacity of pairs of objects using uniform informal units. * Select the uniform informal unit in which they measure, e.g. water, sand, rice.   Year 2   * Measure, compare and order the capacity of several objects using uniform informal units. * Select the uniform informal unit in which they measure, e.g. water, sand, rice.   Mass investigation — Prep and Year 2  During ball games activities, the teacher may include novelty ball games to incorporate a range of balls, e.g. ping-pong ball, tennis ball, medicine ball, cricket ball, shot-put, basketball.  Prep   * Use direct and indirect comparison to decide if one ball is heavier than another. * Explain their reasoning in everyday language.   Year 2   * Compare masses of objects using balance scales. * Explain the results of comparisons of masses.   Area investigation — Year 2  Children investigate the areas of several shapes or objects which are easily measured using uniform informal units. These may include a long jump pit, a high jump mat or a section of a basketball or tennis court.   * Measure, compare and order the area of **several** objects using uniform informal units. * Select the uniform informal unit in which they measure, e.g. book, sheet of newspaper, their body. |  | Skills   * use of problem-solving strategies * appropriate use of mathematical facts, concepts calculations and procedures * communication of calculations, answers and explanations, using basic mathematical language, conventions and symbols |
| Years 3 and 4  Length investigation — Years 3 and 4  During events involving lengths, students measure and compare jumps (long jump), throws (shot-put) or distances travelled (sprints).  Year 3   * Measure, order and compare lengths of objects using familiar metric units, e.g. centimetre, metre.   Year 4   * Use scaled instruments to measure and compare lengths.   Capacity investigation — Years 3 and 4  The teacher supplies a range of objects to compare capacities. These could include cups, mugs, bottles, buckets, measuring cups and spoons. Students use the materials to investigate capacity.  Year 3   * Measure, order and compare capacities of objects using familiar metric units, e.g. millilitre, litre.   Year 4   * Use scaled instruments to measure and compare capacities.   Mass investigation — Years 3 and 4  During ball games activities, the teacher may include novelty ball games to incorporate a range of balls e.g. a ping-pong ball, tennis ball, medicine ball, cricket ball, shot-put, basketball.  Year 3   * Measure, order and compare the mass of objects using familiar metric units, e.g. gram, kilogram.   Year 4   * Use scaled instruments to measure and compare masses.   Temperature investigation — Year 4  Throughout the day of the carnival or during several Physical Education lessons, students measure and compare temperatures, e.g. if completing over one lesson, students record the temperature each hour. If completing over several lessons, students record the temperature during each lesson and compare it to previous temperatures.   * Use scaled instruments to measure and compare temperatures.   Area investigation — Year 4  Students compare the area of objects using familiar metric units. They measure and compare such areas as the tennis court and the undercover area, or the area of two books of roughly the same size. They use newspaper sheets to create a square metre, or MAB sheets or a piece of paper cut to size to make square centimetres.   * Compare areas of objects using familiar metric units, e.g. cm² or m². | Ongoing — driven by the developmental sequence of the unit. | Teachers gather evidence to make judgments about the following characteristics of student work:  Year 3 and Year 4  Understanding   * description of choices made, strategies used and conclusions reached, and checks of the reasonableness of solutions * modelling and representation of situations   Skills   * application of problem-solving strategies * appropriate use of mathematical procedures and calculations * communication of explanations, solutions and calculations, using mathematical language, conventions and symbols |
| Years 5 to 7  Units of measurement investigation — Years 5 and 6  During the athletics carnival or Physical Education lessons, teachers discuss a range of measurement opportunities with students. Year 5 students choose and describe the unit of measurement that would be used to measure the object or shape, e.g. high jump in cm and m, area of the long jump pit in m². Year 6 students will convert between units of measurement, e.g. a jump of 167 cm equals 1.67 m.  Year 5   * Choose appropriate units of measurement for length, area, volume, capacity and mass.   Year 6   * Convert between common metric units of length, mass and capacity.   Perimeter, area and volume investigation — Years 5 to 7  Students design and, if possible, create a space in which the class may sit during the athletics carnival or Physical Education lessons. Students create a shade shelter to calculate perimeter, area and volume in a real-world situation. The teacher may decide upon the requirements of the shelter so as to differentiate the task. Years 5, 6 and 7 students complete different aspects of the shade shelter design and creation.  Year 5   * Calculate the perimeter of the shelter using a range of measuring tools, e.g. trundle wheels, metre rulers, string, rulers. * Calculate the area of the shelter using square metres created from newspaper.   Year 6   * Investigate the connection between altering the dimensions of the shade shelter and how changing lengths of sides may affect area, e.g. a length of 6 m and a width of 4 m has an area of 24 m² but a length of 8 m and a width of 2 m has an area of 16 m². * Connect the volume and capacity of the shade shelter.   Year 7   * Calculate the area of the shelter using the formula for area of a rectangle. * Calculate the volume of the shelter. | Ongoing — driven by the developmental sequence of the unit. | Teachers gather evidence to make judgments about the following characteristics of student work:  Year 5 and Year 6  Understanding   * description of choices made, strategies used and conclusions reached, and checks of the reasonableness of solutions * modelling and representation of situations   Skills   * application of problem-solving strategies * appropriate use of mathematical procedures and calculations * communication of explanations, solutions and calculations, using mathematical language, conventions and symbols   Year 7  Understanding   * description of choices made, strategies used and conclusions reached, and checks of the reasonableness of solutions * mathematical modelling and representation of situations   Skills   * application of problem-solving strategies * appropriate use of mathematical procedures and calculations * communication of explanations, solutions and calculations, using mathematical language, conventions and symbols   For further advice and guidelines on constructing guides to making judgments refer to the Learning area standard descriptors: [www.qsa.qld.edu.au](http://www.qsa.qld.edu.au) |

| Teaching and learning | |
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| **Adjustments for needs of learners** | |
| Section 6 of the *Disability Standards for Education* (The Standards for Curriculum Development, Accreditation and Delivery) states that education providers, including class teachers, must take reasonable steps to ensure a course/program is designed to allow any child/student to participate and experience success in learning.  The *Disability Standards for Education 2005* (Cwlth) is available from: <www.ag.gov.au> select Human rights and anti-discrimination > Disability standards for education. | |
| Resources | |
| Physical resources may include:   * scoops * funnels * buckets * bottles * sand * water * jugs * measuring cups * spoons * balance scales | * rain gauge * weights (in grams and kilograms) * scales * rulers * trundle wheels * tape measures * string * thermometers * newspaper * interactive whiteboard to investigate shapes and their perimeter, area and volume (optional). |

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| Teaching strategies and learning experiences  Group work allows flexibility for children/students to revise or extend learning according to individual needs, which caters for the needs of all learners. | | | | |
| Prep to Year 2 | Years 3 to 4 | | Years 5 to 7 | |
| Children/students:   * undertake a range of practical hands-on activities related to measurement * use a variety of measuring tools to compare length, mass and capacity * talk about, explain and describe their comparisons using language associated with measurement and comparison * collaboratively investigate comparison problems and draw solutions * show reasoning through diagrams, drawings, tables or through a written response * brainstorm real-life situations when people need to measure and link these to how people measure.   Teacher:   * introduces new vocabulary and models the use of new words within all experiences relating to comparing measurements * uses explicit language of comparison, for example: * length: long, longer, longest, longer than, short, shorter, shortest, shorter than, height, centimetre, metre * capacity: full, empty, half full, hollow, solid, holds more, holds less, millilitre, litre * mass: heavier, lighter, grams, kilograms * models measuring assorted objects using a range of tools * gives feedback on recordings of reasoning * models comparison of measurement through real-world materials and situations. | | | | |
| Prep to Year 2  Children:   * explicitly use the language of comparison of quantities during exploratory play, e.g. in sand and water play * use written formats to show reasoning through diagrams or drawings.   Teacher:   * supports investigations in exploratory play, e.g. prompting explanation of comparison of everyday objects * engages children in real-world situations of measurement, which may include cooking, watering plants, buckets in the sandpit, containers that hold liquids and, measuring rainfall. | | Years 3 to 4  Students:   * explore activities from Prep to Year 2, if applicable * investigate length, mass and capacity * investigate metric units of measurement * participate in a range of practical activities related to units of measurement * use appropriate units of measurement. | | Years 5 to 7  Students:   * explore activities from Years 3 and 4, if applicable * participate in a range of practical activities related to units of measurement * use appropriate units of measurement * calculate problems involving length * calculate area of rectangles using familiar metric units. |
| Prep  Children:   * use the language of comparison, e.g. the longest truck in the sandpit, the widest road   Teacher and children:   * role play being human balance scales, e.g. they hold up their arms and ask: Imagine if I had an orange in this hand and a brick in the other. What would happen? Why? * actively compare different measurements, such as length of wrist, length around head * play transition games, e.g. *Pass the bag* — children select and compare two objects (hefting, length).   Teacher:   * uses comparative language to describe objects brought into the classroom * models the hefting process to compare objects. | | Year 3  Students:   * investigate the concepts of length, mass and capacity * investigate metric units of measurement and discuss the need for metric units * measure, compare and order objects using familiar metric units * recognise and use centimetres and metres, grams and kilograms, and millilitres and litres. | | Year 5  Students:   * investigate and discuss appropriate units for measuring length, area, volume, capacity and mass * create square metres from paper/newspaper to calculate areas within the classroom and school environment * calculate areas of shapes using grid paper marked with square centimetres. |
| Year 1  Children:   * actively measure using informal uniform units * discuss and design strategies to create uniform informal units * explain reasoning to describe how they have ordered pairs of objects or quantities.   Teacher and children:   * explore and record assorted measurements to define a uniform informal unit and discuss the differences and difficulties that occurred within these processes.   Teacher:   * models strategies for comparing pairs of objects using multiples of uniform informal units * models estimation strategies for measurement and explains reasoning. | | Year 4  Students:   * investigate the concepts of length, mass and capacity and temperature * use scaled instruments to measure and compare * measure temperatures using scaled instruments * investigate the area of shapes and objects using familiar metric units * investigate the volume of objects using familiar metric units. | | Year 6  Students:   * convert between common metric units of length, mass and capacity * connect volume and capacity and their units of measurement. |
| Year 2  Children:   * measure using a variety of informal uniform units * discuss and design strategies to create uniform informal units and explain reasoning for choice of unit * explain reasoning to describe how they have ordered several objects or quantities.   Teacher and children:   * explore the differences in measurement when using non-uniform units and uniform units. They link this to real-world applications and the need for accurate measurement.   Teacher:   * models strategies for comparing assorted objects using multiples of uniform informal units * models estimation strategies for measurement and engages children in explaining reasoning. | |  | | Year 7  Students:   * establish formulas for areas of rectangles, triangles and parallelograms through a range of practical experiences and discussions * use formulas to solve problems related to area * calculate volumes of rectangular prisms. |

| Use feedback | |
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| Ways to monitor learning and assessment | Teachers meet to collaboratively plan the teaching, learning and assessment to meet the needs of all learners in each unit.  Teachers create opportunities for discussion about levels of achievement to develop shared understandings, co-mark or cross mark at key points to ensure consistency of judgments, and participate in moderating samples of children/student work at school or cluster level to reach consensus and consistency. |
| Feedback to students | Teachers strategically plan opportunities and ways to provide ongoing feedback (both written and informal) and encouragement to children/students on their strengths and areas for improvement.  Children/students reflect on and discuss with their teachers or peers what they can do well and what they need to improve.  Teachers reflect on and review learning opportunities to incorporate specific learning experiences and provide multiple opportunities for children/students to experience, practise and improve. |
| Reflection on the unit plan | Identify what worked well during and at the end of the unit, including:   * activities that worked well and why * activities that could be improved and how * assessment that worked well and why * assessment that could be improved and how * common child/student misconceptions that need, or needed, to be clarified. |