



GIRALANG PRIMARY SCHOOL

NUMERACY PLAN 2007 / 2008

Numeracy goals for our students

At Giralang Primary School, students will:

- link learning in all key learning areas through skills and understandings related to numeracy
- experience diverse, stimulating and relevant numeracy events
- achieve the best possible outcomes as set out in the Curriculum Framework
- enjoy mathematics and understand how it is connected to the wider world

Organisation

Giralang currently has approximately 115 students working in a structure that caters for the needs of all children (Kindergarten, two Year 1 / 2 classes, a Year 3 class, and two Year 4/5/6 classes). The staff at Giralang is committed to ensuring that every student has their individual needs in numeracy catered for and that relevant and meaningful learning experiences that engage all students are planned to ensure students have the opportunity to achieve.

Giralang is a designated special needs school. Students within the Learning Support Unit are fully integrated into mainstream classrooms. They are withdrawn for small group instruction and STA support is provided on a pro-rata basis. We have a small proportion of students identified as ESL. Giralang uses a multi faceted approach to numeracy that includes a variety of teaching strategies and groupings.

The school day has been structured to ensure significant amounts of time can be devoted to the teaching of numeracy in prime teaching time early in the school day.

Current strategies, initiatives and programs:

- The Mathematics Curriculum is currently under review to ensure it is aligned with our new curriculum framework. Scoping and sequencing of essential content as attached reflects our focus for mathematics throughout the school. The curriculum framework - "Every Chance to Learn" provides a strong forum and foundation that provides guidance to planning essential content and worthwhile content across three bands of development - Early Childhood, Later Childhood and Early Adolescence. Specific Essential Learning Achievements relating to mathematics include:
ELA
- Professional discussions enable staff to implement opportunities to include numeracy in all curriculum areas
- Professional development/training enables the whole staff to differentiate numeracy and mathematics as well as gain knowledge about language in mathematics teaching

- Students are regularly assessed to inform the teaching and learning program and ,outcomes are reported to parents twice a year through formal reporting requirements. Use of SENA 1 and SENA 2 form the basis of assessment in number. Other tools are utilized to reflect other mathematical strands.
- Special Needs of students are raised at relevant meetings as required to ensure appropriate support and resourcing is accessed.
- STA's are utilized to provide support in the teaching and learning program.
- Early screening of kindergarten students identifies students with special needs (Kindergarten Health Screen and PIPS).
- The curriculum is differentiated to ensure the specific needs of all children are addressed through the use of a range of materials, methods, approaches and groupings.
- A number sense approach.

Student Numeracy Achievement

Each year we use the ACTAP, PIPS and School Level Assessment data to ensure students are presented with meaningful learning experiences specifically targeted to meet their needs. At the end of each year student achievement is recorded on an assessment grid and passed on from one year to the next. This provides a brief profile of all students and enables teachers to begin planning for the specific needs of all students at the beginning of each year. (See attachment)

Internal and external assessment procedures are utilised to provide focus and direction in numeracy at Giralang Primary School. Analysis of ACTAP, PIPS and internal data indicates the following areas as those requiring development:

Number (ACTAP 2006)
<p>Year 3</p> <ul style="list-style-type: none"> • Finds the total of a set of numbers with a calculator available • Divides a 2-digit number by a 1-digit number and interprets the remainder with a calculator available • Finds whether there will be change from a given amount of money • Finds a missing number from a simple number pattern
<p>Year 5</p> <ul style="list-style-type: none"> • Converts a large number written in words into digits • Divides a 2-digit number by a 1-digit number and interprets the remainder with a calculator available • Infers a rule from a pattern of numbers • Finds the missing numbers in a complex statement of equality • Finds one quarter of a 3 digit number • Finds the missing number in a number sentence with brackets • Finds one fifth of a 3-digit number
Measurement and Data Sense (ACTAP 2006)
<p>Year 3</p> <ul style="list-style-type: none"> • Summarises data from a table • Measures an object to the nearest centimeter

Year 5

- Writes a numerical expression to find the perimeter of a given shape
- Reads a thermometer to the nearest unlabelled graduation

Spatial Sense (ACTAP 2006)**Year 3**

- Gives the grid reference of an object shown on a plan
- Chooses the correct 2D shapes needed to make a 3D model
- Discriminates between seen and unseen shapes in a common object

Year 5

- Uses a scale to accurately complete a diagram



Numeracy Action Plan

Action	Who is responsible?	When?	Achieved
1. Develop progressive record for passing on information about student performance from year to year and any intervention.	Assessment Team	Term 4 2007	✓
2. Develop rubrics for numeracy to assist with A-E reporting	Assessment Team with all staff	Term 2, 2007	✓
3. Inservice all staff on effectively using SENA 1 & SENA 2 from the Count Me In Too Program	Bernadette	Term 2, 2007	✓
4. Use SENA 1 & SENA 2 as an assessment tool school wide to inform planning, programming and grouping for students K-6	Teams	Term 2, 2007	✓
5. Familiarise staff with new curriculum Framework ' <i>Every Chance to Learn</i> ' and embed relevant <i>Essential Learning Achievements</i> and <i>Essential Content</i> into planning documents	Bernadette	Term 4, 2007	✓
6. Review ACTAP and PIPS data and identify key areas that need to be addressed by the school to improve learning outcomes for students	All staff	Term 1 and Term 4	✓
7. Build resources across the school	Middle and Senior Teams	Term 1 2008	

2007

Year 1– Maths

E	(0 -13)	D	(14 – 39)	C	(40 – 65)	B	(66 -91)	A	(92 – 104)
0	Has very limited understanding of number.	3	Reads, writes, counts and orders whole numbers to 20, possibly higher, with support.	6	Reads, writes, counts and orders whole numbers to 99.	9	Reads, writes, counts and orders whole numbers to 999.	12	Reads, writes, counts and orders whole numbers beyond 999.
0	Has very limited or no understanding of tens and ones place value.	3	Manipulates concrete materials to demonstrate an understanding of tens and ones place value, with support.	6	Manipulates concrete materials to demonstrate an understanding of tens and ones place value.	9	Adds combinations of 1 and 2 digit numbers with/out exchange and subtracts 1 and 2 digit numbers without exchange.	12	Adds combinations of 2 and 3 digit numbers with/out exchange and subtracts 2 digit numbers with/out exchange.
0	Cannot add or subtract numbers in either concrete or written form.	3	Adds and subtracts using 1 digit numbers, with support. Has limited understanding of symbols (+, -).	6	Adds and subtracts using 1 digit numbers independently. Uses symbols (+, -) to add and subtract up to 30.	9	Adds and subtracts 1 and 2 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	12	Adds and subtracts 2 and 3 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.
0	Has very limited or no understanding of concepts of grouping or sharing.	3	Uses simple number stories, collections and pictorial representations as precursor to multiplication and division, with support.	6	Uses simple number stories, collections and pictorial representations as precursor to multiplication and division. Counts by 1, 2, 5, 10.	9	Groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 3 and 4. Recalls times tables 1, 2, 5, 10.	12	Multiplies 2 digits by 1 digit. Divides collections to 100 with/out remainders using concrete materials. Counts by 6 and 9. Recalls time tables 1, 2, 3, 4, 5, 10.
0	Is unable to halve objects and collections.	3	Halves symmetrical shapes and simple collections, with support.	6	Halves symmetrical shapes and simple collections.	9	Halves objects and collections.	12	Recognises that fractions represent part of a whole. Understand halves and quarters.
0	Has very limited recognition of Australian coins and notes.	1	Has limited recognition of Australian coins and notes.	2	Recognises some Australian coins and notes.	3	Recognises all Australian coins and notes.	4	Uses money to buy goods and check change.
0	Identifies extremely limited range of shapes, with support.	1	Identifies a limited number of 2D shapes.	2	Identifies common regular 2D shapes and locates 3D shapes in the environment.	3	Identifies and sorts common 2D and 3D objects.	4	Identifies common 2D and 3D objects and uses correct mathematical language to describe.
0	Requires support to copy and continue patterns. Cannot create own patterns.	1	Copies and continues simple patterns.	2	Copies, creates and continues simple patterns.	3	Describes, creates and continues a range of patterns.	4	Continues and creates simple whole number and pictorial patterns.
0	Has minimal understanding of attributes of length, mass and capacity.	2	Has limited understanding of attributes of length, mass and capacity.	4	Identifies basic attributes of measurement: length, mass and capacity.	6	Identifies attributes of length, area, mass and capacity.	8	Recognises need for standardised units of measure, other than metre, kilogram and litre: cm, g and ml.
0	Is unable to estimate, compare, or order.	2	Estimates and measures length, mass and capacity, using everyday comparative language, with support.	4	Estimates and measures length, mass and capacity, using everyday comparative language.	6	Estimates, compares and orders quantities (eg height, length) using concrete materials.	8	Estimates, compares and orders quantities using given measurement unit, concrete materials and in written form.
0	Has very limited understanding of concept of time, clocks, days of the week etc.	2	Orders daily events and names days of the week. Has a limited concept of time and clocks.	4	Orders daily events and relates days of the week, months of the year and understands that movement of clock hands represents the passage of time.	6	Orders time by sequencing daily events and tells time to ¼ hour intervals on analogue clocks.	8	Reads time on digital clocks in hours and minutes and on analogue clocks in 5 minute intervals.
0	Has very limited understanding of basic positional language.	1	Uses or responds to basic positional language, with support.	2	Uses or responds to basic positional language.	3	Uses picture sequence, maps, diagrams, graphs and models to represent familiar aspects of their world.	4	Creates simple plans and maps of familiar areas, using major basic compass points.
0	Is unable to demonstrate understanding that symbols can represent data.	1	Understands that symbols can be used to represent data.	2	Uses symbols to represent data, with support.	3	Uses symbols to represent data, eg pictographs.	4	Produces and interprets simple bar and column graphs.

Year 2 – Maths

E	(0 -13)	D	(14 – 39)	C	(40– 65)	B	(66 -91)	A	(92 – 104)
0	Reads, writes, counts and orders whole numbers to less than 30.	3	Reads, writes, counts and orders whole numbers to less than 99.	6	Reads, writes, counts and orders whole numbers to 999.	9	Reads, writes, counts and orders whole numbers beyond 999.	12	Reads, writes, counts and orders whole numbers to 9 999.
0	Manipulates concrete materials to demonstrate an understanding of tens and ones place value, with support.	3	Manipulates concrete materials to demonstrate an understanding of tens and ones place value.	6	Adds combinations of 1 and 2 digit numbers with/without exchange and subtracts 1 and 2 digit numbers without exchange.	9	Adds combinations of 2 and 3 digit numbers with/without exchange and subtracts 2 digit numbers with/without exchange.	12	Adds combinations of 2 and 3 digit numbers with/without exchange to 999 and subtracts 2 and 3 digit numbers with/without exchange.
0	Adds and subtracts using 1 digit numbers, with support. Has limited understanding of symbols (+, -).	3	Adds and subtracts using 1 digit numbers independently and 2 digit numbers, with support.	6	Adds and subtracts 1 and 2 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	9	Adds and subtracts 2 and 3 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	12	Demonstrates an understanding of addition and subtraction (2 and 3 digits), multiplication and division (2 digits by 1 digit).
0	Has very limited or no understanding of the concepts of grouping or sharing.	3	With support: groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 1, 2, 5, 10.	6	Groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 3 and 4. Recalls times tables 2, 5, 10.	9	Multiplies 2 digit numbers by 1 digit. Divides collections to 100 with/out remainders using concrete materials. Counts by 6 and 9. Recalls time tables 1, 2, 3, 4, 5, 10.	12	Multiplies 2 digit numbers by 1 digit with/out exchange. Divides a 2 digit number by 1 digit with/out exchange. Counts by 7 and 8. Recalls times tables 1, 2, 3, 4, 5, 6, 9, 10.
0	Is unable to halve objects and collections.	3	Halves objects and collections, with support	6	Halves objects and collections.	9	Recognises that fractions represent part of a whole and understands halves and quarters.	12	Understands language of common fractions, numerator and denominator and can order $\frac{1}{2}$ s, $\frac{1}{4}$ s $\frac{1}{8}$ s.
0	Has very limited recognition of Australian coins and notes	1	Recognises some Australian coins and notes.	2	Recognises all Australian coins and notes.	3	Uses money to buy goods and check change.	4	Counts, orders and estimates using Australian coins and notes. Associates price with money to be paid.
0	Identifies a very limited range of shapes, with support.	1	Identifies a limited range of 2D and 3D shapes.	2	Identifies and sorts common 2D and 3D objects.	3	Identifies common 2D and 3D objects and uses correct mathematical language to describe.	4	Identifies and represents the essential features of regular 2D and 3D shapes.
0	Explores simple patterns, with support	1	Describes, creates and continues a range of simple patterns, with support.	2	Describes, creates and continues a range of patterns.	3	Continues and creates simple whole number and pictorial patterns.	4	Understands different ways of changing numbers and shapes to create patterns and sequences.
0	Has very limited understanding of attributes of length, area, mass and capacity.	2	Identifies attributes of some of the following aspects of measurement: length, area, mass and capacity, with support.	4	Identifies attributes of length, area, mass and capacity.	6	Recognises need for standardised units of measure, other than metre, kilogram and litre: cm, g and ml.	8	Uses formal units of measurement to estimate and measure length, area, mass and capacity.
0	Is unable to estimate, compare, or order without significant support.	2	Estimates, compares and orders quantities (eg height, length) using concrete materials, with support.	4	Estimates, compares and orders quantities (eg height, length) using the same unit, with concrete materials.	6	Estimates, compares and orders quantities using given measurement unit, concrete materials and in written form.	8	Accurately selects and uses metric units including metre, centimetre, kilogram and litre.
0	Has very limited understanding of concept of time.	2	Orders daily events, with support and recognises some times on analogue clock.	4	Orders time by sequencing daily events and tells the time to $\frac{1}{4}$ hour intervals on analogue clocks.	6	Tells time on digital clocks in hours and minutes and on analogue clocks in 5 minute intervals.	8	Tells time of day on digital and analogue clocks.
0	Needs significant support to produce at least one type of visual representation.	1	Uses picture sequences, maps, diagrams, graphs and models to represent familiar aspects of their world, with support.	2	Uses picture sequences, maps, diagrams, graphs and models to represent familiar aspects of their world.	3	Creates simple plans and maps of familiar areas, using major basic compass points.	4	Creates plans and maps of familiar areas, using major basic compass points and simple legend.
0	Has very limited understanding of how symbols can be used to represent data.	1	Uses symbols to represent data, with support.	2	Understands that symbols can be used to represent data eg pictographs	3	Produces and interprets simple bar and column graphs.	4	Produces and interprets picture, bar and column graphs using basic conventions.

Year 3 – Maths

E	(0 -13)	D	(14 – 40)	C	(41 – 67)	B	(68 - 94)	A	(95 – 108)
0	Reads, writes, counts and orders whole numbers to 999, with support.	3	Reads, writes, counts and orders whole numbers beyond 999, with support.	6	Reads, writes counts and orders whole numbers beyond 999.	9	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 1 decimal place.	12	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 2 decimal places.
0	Manipulates concrete materials to demonstrate an understanding of tens and ones place value.	3	Adds combinations of 1 and 2 digit numbers with/out exchange and subtracts 1 and 2 digit numbers without exchange.	6	Adds combinations of 2 and 3 digit numbers with/out exchange and subtracts 2 digit numbers with/out exchange.	9	Adds combinations of 2 and 3 digit numbers with/out exchange to 999 and subtracts 2 and 3 digit numbers with/out exchange.	12	Adds numbers with/out exchange to 9 999 and subtracts 3 and 4 digit numbers with/out exchange.
0	Solves simple 1 and 2 digit addition and subtraction problems, with a high level of support.	3	Adds and subtracts 1 and 2 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	6	Adds and subtracts 1 and 2 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	9	Demonstrates an understanding of addition and subtraction (2 and 3 digits), multiplication and division (2 digits by 1 digit).	12	Demonstrates an understanding of addition and subtraction (3 and 4 digits), multiplication (2 digits by 2 digit) and division (2 digits by 1 digit).
0	With support: groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 1, 2, 5, 10.	3	With support: groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 3 and 4. Recalls times tables 1, 2, 5, 10.	6	Multiplies 2 digit numbers by 1 digit, both horizontally and vertically. Divides collections to 100 with/out remainders using concrete materials. Counts by 6 and 9. Recalls time tables 1, 2, 3, 4, 5, 10.	9	Multiplies 2 digit numbers by 1 digit with/out exchange. Divides a 2 digit number by 1 digit with/out exchange. Counts by 7 and 8. Recalls times tables 1, 2, 3, 4, 5, 6, 9, 10.	12	Multiplies a 2 digit number by a 2 digit number with/out exchange. Divides a 2 digit number by a single digit with/without exchange. Recalls times tables 1 - 12.
0	Has very limited understanding of concept of fractions- halves and quarters.	3	Halves objects and collections.	6	Recognises that fractions represent part of a whole and understands halves and quarters.	9	Understands language of common fractions, numerator and denominator and can order $\frac{1}{2}$ s, $\frac{1}{4}$ s 1/8s.	12	Represents, orders and compares simple common fractions and mixed numbers to tenths.
0	Has limited recognition of Australian money.	1	Recognises all Australian coins and notes.	2	Uses money to buy goods and check change.	3	Counts orders and estimates using Australian coins and notes. Associates price with money to be paid.	4	Solves money problems using Australian currency.
0	Identifies a limited range of 2D and 3D shapes.	1	Identifies and sorts common 2D and 3D objects, with support.	2	Identifies common 2D and 3D objects and can use correct mathematical language to describe.	3	Identifies and represents the essential features of regular 2D and 3D shapes.	4	Identifies, understands and represents the essential features of regular and irregular 2D and 3D shapes.
0	May copy and continue simple patterns, with support.	1	Describes, creates and continues a range of patterns, with support.	2	Continues and creates simple whole number and pictorial patterns.	3	Understands different ways of changing numbers and shapes to create patterns and sequences.	4	Describes and produces patterns in number and space. (eg tessellation and symmetry).
0	Has very limited understanding of attributes of length, area, mass and capacity.	2	Identifies attributes of length, area, mass and capacity.	4	Recognises need for standardised units of measure, other than metre, kilogram and litre: cm, g and ml.	6	Uses formal units of measurement to estimate and measure length, area, mass and capacity.	8	Estimates, measures and compares length, area, volume, capacity and mass using formal units of measurement.
0	Is unable to estimate, compare or order quantities using the same unit, with or without concrete materials.	2	Estimates, compares and orders quantities using the same unit, with concrete materials.	4	Estimates, compares and orders quantities using given measurement unit, concrete materials and in written form.	6	Accurately selects and uses metric units including metre, centimetre, kilogram and litre.	8	Selects and uses metric units including: Length, metres, cm and mm. Area: m^2 , cm^2 . Capacity: l, ml. Mass: kg, g.
0	Orders time by sequencing daily events. May tell time to o'clock on analogue clocks.	2	Orders time by sequencing daily events and tell time to $\frac{1}{4}$ hour intervals on analogue clocks.	4	Tells time on digital clocks in hours and minutes and on analogue clocks in 5 minute intervals.	6	Tells time of day on digital and analogue clocks.	8	Tells time to the nearest minute using analogue and digital clocks.
0	Distinguishes possible from impossible events, with support.	1	Distinguishes impossible from unlikely events, with support.	2	Distinguishes impossible from unlikely events.	3	Orders events using simple predictions- most likely, least likely.	4	Makes simple statements about data collected including predictions about likelihood.
0	Needs high level support to interpret or create simple maps or charts.	1	Uses picture sequences, maps, diagrams, graphs and models to represent familiar aspects of their world with support.	2	Creates simple plans and maps of familiar areas, using major basic compass points.	3	Creates plans and maps of familiar areas, using major basic compass points and simple legend.	4	Creates maps and plans with a sense of scale and direction and interprets symbols and conventions when reading maps.
0	Has limited understanding of symbol/data relationships.	1	Understands that symbols can be used to represent data and can produce and interpret simple bar and column graphs with support.	2	Produces and interprets simple bar and column graphs.	3	Produces and interprets picture, bar and column graphs using basic conventions.	4	Creates and interprets a variety of visual representations including flowcharts, diagrams and graphs.

Year 4 – Maths

E	(0 - 13)	D	(14 – 40)	C	(41 – 67)	B	(68 - 94)	A	(95 – 108)
0	Reads, writes, counts and orders whole numbers to 99, with support.	3	Reads, writes counts and orders whole numbers beyond 999; fractions and decimal notation to 1 decimal place, with support.	6	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 1 decimal place.	9	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 2 decimal places.	12	Recognises and represents whole numbers to at least 6 digits; fractions and decimal notation to 3 decimal places.
0	Adds combinations of 1 and 2 digit numbers with/out exchange and subtracts 1 and 2 digit numbers without exchange.	3	Adds combinations of 2 and 3 digit numbers with/out exchange and subtracts 2 digit numbers with/out exchange.	6	Adds combinations of 2 and 3 digit numbers with/out exchange to 999 and subtracts 2 and 3 digit numbers with/out exchange.	9	Adds numbers with/out exchange to 9 999 and subtracts 3 and 4 digit numbers with/out exchange.	12	Adds two or more numbers to 4,5 and 6 digits with/out exchange and subtracts 4, 5 and 6 digit numbers with/out exchange.
0	Solves simple addition and subtraction problems with high level support.	3	Adds and subtracts 1 and 2 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	6	Demonstrates an understanding of addition and subtraction (2 and 3 digits), multiplication and division (2 digits by 1 digit).	9	Demonstrates an understanding of addition and subtraction (3 and 4 digits), multiplication (2 digits by 2 digits) and division (2 digits by 1 digit).	12	Demonstrates an understanding of addition and subtraction (4, 5 and 6 digits) and decimal fractions to 2 decimal places. Multiplies and divides whole numbers up to 100 by tenths and hundredths.
0	With support: groups and shares objects and uses skip counting and repeated additions and subtractions to represent multiplication and division. Counts by 3 and 4. Recalls times tables 1, 2, 5, 10.	3	Multiplies 2 digit numbers by 1 digit, both horizontally and vertically. Divides collections to 100 with/out remainders using concrete materials. Counts by 6 and 9. Recalls time tables 1, 2, 3, 4, 5, 10.	6	Multiplies 2 digit numbers by 1 digit with/out exchange. Divides a 2 digit number by 1 digit with/out exchange. Counts by 7 and 8. Recalls times tables 1, 2, 3, 4, 5, 6, 9, 10.	9	Multiplies a 2 digit number by a 2 digit number with/out exchange. Divides a 2 digit number by a single digit with/without exchange. Recalls times tables 1 - 12.	12	Multiplies 2 digit numbers by a 2 digit number with/out exchange. Divides a 2 digit number by a 2 digit number with/without exchange.
0	Recognises that fractions represent part of a whole and understands halves and quarters, with high level support.	3	Recognises that fractions represent part of a whole and understands halves and quarters.	6	Understands language of common fractions, numerator and denominator and can order $\frac{1}{2}$ s, $\frac{1}{4}$ s 1/8s.	9	Represents, orders and compares simple common fractions and mixed numbers to tenths.	12	Understands the relationship between fractions, decimals and percentages.
0	Uses money to buy goods and check change, with high level support.	1	Uses money to buy goods and check change.	2	Counts orders and estimates using Australian coins and notes. Associates price with money to be paid.	3	Solves money problems using Australian currency.	4	Constructs, evaluates and modifies budgets.
0	Has very limited knowledge of 2D and 3D shapes.	1	Identifies common 2D and 3D objects and can use correct mathematical language to describe.	2	Identifies and represents the essential features of regular 2D and 3D shapes.	3	Identifies, understands and represents the essential features of regular and irregular 2D and 3D shapes.	4	Accurately draws and construct 2D and 3D shapes using formal units and instruments.
0	Copies and continues simple whole number and pictorial patterns, with support.	1	Continues and creates simple whole number and pictorial patterns.	2	Understands different ways of changing numbers and shapes to create patterns and sequences.	3	Describes and produces patterns in number and space. (eg tessellation and symmetry).	4	Analyses and creates a variety of patterns in number and space (eg tessellation and symmetry).
0	Has limited understanding of all areas of measurements.	2	Uses informal units of measurement to estimate and compare at least one of the following: length, area, mass and capacity with support.	4	Uses formal units of measurement to estimate and measure length, area, mass and capacity.	6	Estimates, measures and compares length, area, volume, capacity and mass using formal units of measurement.	8	Estimates, measures and compares length, area, volume, capacity, mass and time using formal units of measurement.
0	Demonstrates simple comparisons using informal measures and everyday language.	2	Estimates, compares and orders quantities using a given measurement unit with concrete materials and in written form, with support.	4	Accurately selects and uses metric units including metre, centimetre, kilogram and litre.	6	Selects and uses metric units including: length: metres, cm and mm. Area: m^2 , cm^2 , Capacity: l, ml. Mass: kg, g	8	Selects and uses metric units including: Length: metres, cm and mm. Area: m^2 , cm^2 , km^2 . Volume: m^3 , cm^3 . Capacity: l, ml. Mass: kg, g Compares and understands the relationship between units.
0	Tells time on digital clocks in hours and minutes and has very basic knowledge of analogue clocks.	2	Tells time on digital clocks in hours and minutes and on analogue clocks in 5 minute intervals with support.	4	Tells time to the nearest minute using analogue and digital clocks.	6	Tells time to the nearest minute using analogue and digital clocks.	8	Tells time to the nearest minute using analogue and digital clocks, including 24hr time.
0	Distinguishes impossible from unlikely events.	1	Orders events using simple predictions-most likely, least likely etc with support.	2	Orders events using simple predictions-most likely, least likely etc.	3	Makes simple statements about data collected including predictions about likelihood.	4	Identifies and interprets variation in data and uses common statistical terms such as range, median, mode and mean. Makes reasonable judgements about likelihood of events.
0	Interprets basic maps and plans with high level support.	1	Creates simple plans and maps of familiar areas, with support.	2	Creates simple plans and maps of familiar areas, using major basic compass points and simple legend.	3	Creates maps and plans with a sense of scale and direction and interprets symbols and conventions when reading maps.	4	Interprets map key, coordinates, scale and compass points. Constructs plans and maps using these features.
0	May produce and interpret simple bar and column graphs with high level support.	1	Produces and interprets simple bar and column graphs, with support.	2	Produces and interprets picture, bar and column graphs.	3	Creates and interprets a variety of visual representations including flowcharts, diagrams and graphs.	4	Creates visual representations for particular purposes and audiences.

Year 5 – Maths

E	(0 -13)	D	(14 – 40)	C	(41 – 67)	B	(68 - 94)	A	(95 – 108)
0	Recognises and represents whole numbers to 99, with support.	3	Recognises and represents whole numbers to 999; fractions and decimal notation to 1 decimal place, with support.	6	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 2 decimal places.	9	Recognises and represents whole numbers to at least 6 digits; fractions and decimal notation to 3 decimal places, with support.	12	Recognises and represents whole numbers to 7 digits; fractions and decimal notation to 3 decimal places.
0	Adds combinations of 2 and 3 digit numbers with/out exchange and subtracts 2 digit numbers with/out exchange.	3	Adds combinations of 2 and 3 digit numbers with/out exchange to 999 and subtracts 2 and 3 digit numbers with/out exchange.	6	Adds numbers with/out exchange to 9 999 and subtracts 3 and 4 digit numbers with/out exchange.	9	Adds two or more numbers to 4, 5 and 6 digits with/out exchange and subtracts 4, 5 and 6 digit numbers with/out exchange.	12	
0	Has a limited understanding of the four operations.	3	Adds and subtracts 2 and 3 digit numbers and uses this to solve addition and subtraction problems, explaining their solutions.	6	Demonstrates an understanding of addition and subtraction (3 and 4 digits), multiplication (2 digits by 2 digits) and division (2 digits by 1 digit).	9	Demonstrates an understanding of addition and subtraction (4, 5 and 6 digits) and decimal fractions to 2 decimal places. Multiplies and divides whole numbers up to 99 by tenths and hundredths.	12	Interprets and solves practical problems, selecting and using an appropriate sequence of operations.
0	Multiplies 2 digit numbers by 1 digit, both horizontally and vertically. Divides collections to 100 with/out remainders using concrete materials. Counts by 6 and 9. Recalls time tables 1, 2, 3, 4, 5, 10.	3	Multiplies 2 digit numbers by 1 digit with/out exchange. Divides a 2 digit number by 1 digit with/out exchange. Counts by 7 and 8. Recalls times tables 1, 2, 3, 4, 5, 6, 9, 10.	6	Multiplies a 2 digit number by a 2 digit number with/out exchange. Divides a 2 digit number by a single digit with/without exchange. Recalls times tables 1 - 12.	9	Multiplies 2 digit numbers by a 2 digit number with/out exchange. Divides a 2 digit number by a 2 digit number with/without exchange.	12	
0	Has a very limited understanding of common fractions.	3	Understands language of common fractions, numerator and denominator and can order $\frac{1}{2}$ s, $\frac{1}{4}$ s $\frac{1}{8}$ s, with support.	6	Represents, orders and compares simple common fractions and mixed numbers to tenths.	9	Understands the relationship between fractions, decimals and percentages.	12	Demonstrate the relationship between fractions, decimals and percentages.
0	Recognises Australian notes and coins but requires support to make amounts of money to be paid.	1	Counts orders and estimates using Australian notes and coins. Associates price with money to be paid.	2	Solves money problems using Australian currency.	3	Constructs, evaluates and modifies budgets.	4	Understands the need to plan for the future and save money.
0	Identifies some basic shapes and their features, with support.	1	Identifies and represents the essential features of regular 2D and 3D shapes, with support.	2	Identifies, understands and represents the essential features of regular and irregular 2D and 3D shapes.	3	Accurately draws and constructs 2D and 3D shapes using formal units and instruments.	4	Uses drawing instruments and software to construct accurate representations of two dimensional shapes according to specification.
0	Creates patterns and sequences, with support.	1	Creates simple patterns and number sequences.	2	Describes and produces patterns in number and space. (eg tessellation and symmetry).	3	Analyses and creates a variety of patterns in number and space (eg tessellation and symmetry).	4	Creates a variety of patterns in different contexts.
0	Has a very limited understanding of estimating, measuring and comparing and requires support for most measurement activities.	2	Uses formal units of measurement to estimate and measure length, area, mass and capacity.	4	Estimates, measures and compares length, area, volume, capacity and mass using formal units of measurement.	6	Estimates, measures and compares length, area, volume, capacity, mass and time using formal units of measurement.	8	Explores relationships between length, area and volume.
0	Has a very limited understanding of measurement and requires support for most measurement activities.	2	Uses formal units of measurement, with support.	4	Selects and uses metric units including: length: metres, cm and mm. Area: m^2 , cm^2 , Capacity: l, ml. Mass: kg, g	6	Selects and uses metric units including: Length: metres, cm and mm. Area: m^2 , cm^2 , km^2 . Volume: m^3 , cm^3 . Capacity: l, ml. Mass: kg, g. Compares and understands the relationship between units.	8	Measures and compares magnitudes of lengths, areas, volumes and angles.
0	Requires a high level of support to complete basic time activities.	2	Tells time of day on digital and analogue clocks, with support.	4	Tells time to the nearest minute using analogue and digital clocks.	6	Tells time to the nearest minute using analogue and digital clocks, including 24hr time.	8	Carries out calculations involving 12 and 24 hour time cycles, durations of events and schedules in practical situations.
0	Makes simple predictions of outcome, with support.	1	Orders events using simple predictions-1 most likely, least likely etc.	2	Makes simple statements about data collected including predictions about likelihood.	3	Identifies and interprets variation in data and uses common statistical terms such as range, median, mode and mean. Makes reasonable judgements about likelihood of events.	4	Interprets variation in data and calculates common statistical terms such as range, median, mode and mean. Makes reasonable judgements about likelihood of events and makes informal inferences.
0	Creates simple plans and maps with a high level of support.	1	Creates simple plans and maps of familiar areas, using major basic compass points and simple legend.	2	Creates maps and plans with a sense of scale and direction and interpret symbols and conventions when reading maps.	3	Interprets map key, coordinates, scale and compass points and constructs plans and maps using these features.	4	Interprets and creates a range of representations and their symbols and conventions including diagrams, concept maps, flow charts and bar, column and line graphs.
0	Requires a high level of support to create or interpret basic graphs or diagrams.	1	Produces and interprets picture, bar and column graphs, with support.	2	Creates and interprets a variety of visual representations including flowcharts, diagrams and graphs.	3	Creates visual representations for particular purposes and audiences.	4	Creates visual representations for particular purposes and audiences justifying choice.

Year 6 – Maths

E	(0 -13)	D	(14 – 40)	C	(41 – 67)	B	(68 - 94)	A	(95 – 108)
0	Requires high level support to attempt modified program.	3	Recognises and represents whole numbers to 9 999; fractions and decimal notation to 1 decimal place, with support.	6	Recognises and represents whole numbers to at least 6 digits; fractions and decimal notation to 3 decimal places.	9	Recognises and represents whole numbers to at least 7 digits; fractions and decimal notation to at least 3 decimal places, with support.	12	Recognises and represents whole numbers to at least 7 digits; fractions and decimal notation to at least 3 decimal places.
0	Adds combinations of 2 and 3 digit numbers with/out exchange to 999 and subtracts 2 and 3 digit numbers with/out exchange.	3	Adds numbers with/out exchange to 9 999 and subtracts 3 and 4 digit numbers with/out exchange.	6	Adds two or more numbers to 4, 5 and 6 digits with/out exchange and subtracts 4, 5 and 6 digit numbers with/out exchange.	9		12	
0	Has basic understanding of simple problems using four operations.	3	Demonstrates an understanding of addition and subtraction (3 and 4 digits), multiplication (2 digits by 1 digit) and division (2 digits by 1 digit).	6	Demonstrates an understanding of addition and subtraction (4, 5 and 6 digits) and decimal fractions to 2 decimal places. Multiplies and divides whole numbers up to 99 by tenths and hundredths.	9	Interprets and solves practical problems, selecting and using an appropriate sequence of operations.	12	Demonstrates an understanding of addition and subtraction to infinity using whole numbers and decimal fractions- tenths, hundredths, thousandths. Multiplies and divides tenths and hundredths by whole numbers up to 999.
0	Multiplies 2 digit numbers by 1 digit with/out exchange. Divides a 2 digit number by 1 digit with/out exchange. Counts by 7 and 8. Recalls times tables 1, 2, 3, 4, 5, 6, 9, 10.	3	Multiplies 2 digit numbers by a 2 digit number with/out exchange. Divides a 2 digit number by a single digit with/without exchange. Recalls times tables 1 - 12.	6	Multiplies 2 digit numbers by a 2 digit number with/out exchange. Divides a 2 digit number by a 2 digit number with/without exchange.	9		12	
0	Requires high level of support to manipulate fractions.	3	Represents and works with simple common fractions.	6	Understands the relationship between fractions, decimals and percentages.	9	Demonstrates the relationship between fractions, decimals and percentages.	12	Solves problems using equivalence of fractions, decimals and percentages.
0	Has extremely limited understanding of concept of budgets.	1	Understands simple budget concepts (e.g. income versus expenditure).	2	Constructs, evaluates and modifies budgets.	3	Understands need to plan for the future and save money.	4	Evaluates short and long term needs and wants in terms of available income.
0	Has a basic knowledge of 2D and 3D shapes.	1	Recognises, understands and represents the essential features of 2D and 3D shapes.	2	Accurately draws and construct 2D and 3D shapes using formal units and instruments.	3	Uses drawing instruments and software to construct accurate representations of two dimensional shapes according to specification.	4	Constructs three dimensional objects from plans, nets and isometric diagrams.
0	Creates simple patterns, with support.	1	Describes and creates patterns in number and space. (eg tessellation and symmetry) with some support.	2	Analyses and creates a variety of patterns in number and space(eg tessellation and symmetry).	3	Creates a variety of patterns in different contexts.	4	Analyses a range of patterns and can generalise and apply rules, predict and create new variations on patterns.
0	Estimates, measures and compares length, area, volume, capacity and mass using formal units of measurement, with high level support.	2	Estimates, measures and compares length, area, volume, capacity and mass using formal units of measurement.	4	Estimates, measures and compares length, area, volume, capacity, mass and time using formal units of measurement.	6	Explores relationships between length, area and volume.	8	Uses formulae to determine measurements.
0	Requires a high level of support to select and uses metric units including metre, centimetre, kilogram and litre.	2	Selects and uses metric units including metre, centimetre, kilogram and litre.	4	Selects and uses metric units including: Length: metres, cm and mm. Area: m ² , cm ² , km ² . Volume: m ³ , cm ³ . Capacity: l, ml. Mass: kg, g. Compares and understands the relationship between units.	6	Measures and compares magnitudes of lengths, areas, volumes and angles.	8	Understands how measurement involves error and the required level of accuracy relating to the context for measuring.
0	Has limited understanding of time, clock reading.	2	Tells time to the nearest minute using analogue and digital clocks.	4	Tells time to the nearest minute using analogue and digital clocks, including 24hr time.	6	Carries out calculations that involve 12 and 24 hour time cycles, durations of events and schedules in practical situations.	8	Carries out calculations that involve 12 and 24 hour time cycles, durations of events and schedules in practical situations and takes into account time zones.
0	Makes simple statements about data collected including predictions about likelihood, with support.	1	Makes simple statements about data collected including predictions about likelihood.	2	Uses common statistical terms such as range, median, mode and mean. Makes reasonable judgements about likelihood of events.	3	Interprets variation in data and calculates common statistical terms such as range, median, mode and mean. Makes reasonable judgements about likelihood of events and makes informal inferences.	4	Makes informal inferences about data and notes possible causes of bias in the context of an analysis of data, related to a particular situation or topic.
0	Creates simple maps and plans with support.	1	Creates maps and plans with a sense of scale and direction and interprets symbols and conventions when reading maps, with support.	2	Interprets map key, coordinates, scale and compass points and constructs plans and maps using these features.	3	Interprets and creates a range of representations and their symbols and conventions, including diagrams, concept maps, flow charts and bar, column and line graphs.	4	Interprets and creates a range of representations and their symbols and conventions, including models, diagrams, concept maps, flow charts and bar, column and line graphs. Makes choices about best form to use.
0	Requires high level support to create and interpret simple visual representations including flowcharts, diagrams, graphs.	1	Creates and interprets a variety of visual representations including flowcharts, diagrams and graphs, with support.	2	Creates visual representations for particular purposes and audiences.	3	Creates visual representations for particular purposes and audiences justifying choice.	4	Understands grids and coordinate systems, intermediate compass points, scale, distance and annotations on maps.

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