Year 3			Mathematics Term Planner – Western Adelaide Region (Draft 15/10/13)					Term 1				
Big Ideas/ Topic focus	Strand/ Sub Strand	Achievemen Standard	t Content Descriptor(s)	Student Prior Knowledge	Suggested Teaching & Learning Experiences	Assessment Focus/ Task	Time Frame	Resources	Links to other learning areas			
Week's 1& 2 – Focus on revising <i>Trusting the Count</i> and basic number fact knowledge through dice games, subitising, thinkboards and problem solving tasks. Check for understanding of counting strategies such as: subitising, counting on, counting back, doubles, near doubles, rainbow facts, friendly numbers, turnaround facts, bridging through the tens (<i>Mental Computation - Early Years, Ann & Johhny Baker, Natural Maths</i>)												
-Place value has a logical, repeating pattern that extends to the thousands and beyond -Numbers can be renamed in various ways (<i>i.e.</i> 254 can be renamed as 25 tens and 4 ones, or 254 ones) -In place value there are names for each new unit (multiples of 10) (<i>i.e.</i> tens, hundreds, thousands)	Strand: Number & Algebra Sub-strand: Place Value	By the end o Year 3 students count to and from 10 000	Recognise, model, represent and order numbers to at least 10 000 of Apply place value to partition, rearrange and regroup (rename) numbers to at least 10 000 to assist calculations & solve problems	 Place value knowledge to 1 000 (TH/H/T/O) Counting strategies and counting patterns Adding 10, adding 100 Using a 100s board Ten of these is one of those (<i>e.g.</i> 10 tens is 100, 10 hundreds is 1000) Comparing and ordering numbers Part-part whole, partitioning and basic renaming of numbers 	 Revise hundreds chart counting patterns (1-100 chart) – counting on & back by 10's; exploring the one doesn't change when adding 10 Fill a 'mystery box' of place value items Mental routines (100's chart, place value buttons) – Natural Maths; Natural maths Place Value software Problematised situations (<i>Natural Maths Strategies, Book 2 & Problem Solving Books 2 & 3</i>) TH/H/T/O boards, whiteboards- using popstick bundles or lids marked with 1, 10, 100, 1 000 (<i>MAB only recommended at year 3 for students showing understanding of the new units, i.e. 10 tens is 100</i>) Thinkboard – The answer is 1 000; The answer is (<i>student decided</i>) Sequence numbers with a specified number of digits. Discuss highest, lowest numbers, etc. as small and larger groups Roll and say- using an interactive die roll and record each number. Students repeat the number recorded (e.g. 6, 26, 426, 7426, etc.) The emphasis is on the place of the number tells us its value and practising reading and numbers. <i>Extension</i> – change the order of the number (e.g. 6, 62, 462, etc.) Counting games (e.g. Big Step, Little Step, Tiny step (big step add on 1000, little step add on 100, tiny step add on 10) – extend tell students to take 10, 100 or 1 000 instead of adding 0-9 Cards and PV word cards – compare, order, count on, count back in place value parts, rename Number expanders (TH, H,T,O) for renaming Calculators – practice using calculators for PV (e.g. choose a number and add 10, keep pressing the = sign, what happens?); Explore number patterns (e.g. adding 10 from any starting point) Interactive whiteboard place value activities, such as those found on Scotte/Moodle (e.g. Wishball – tens/ hundreds/ decimals and more), strategic maths, rainforest maths, interactive hundreds boards and dice, etc. Place Value games and problem solving – see Big Ideas in Number; Michael Ymer's games 'Make a Number/Break a Number, Jackpot \$	Diagnostic Assessment Big Ideas in Number – Place Value diagnostic test (Professor Dianne Siemon) Formative Assessment Natural Maths Problem Solving, Book 2; Natural Maths Strategies Book 2; and Place Value book (Ann & Johnny Baker) Doug Clarke – 'Rich Assessment Tasks' Maths300 tasks (Education Services, Victoria) Thinkboards – make, name, record, rename Place value games – BIN, Michael Ymer, Natural Maths Summative Assessment Tasks (Western Adelaide Region) -3.1: Take 4!	Term 1 (5-6 weeks) Ongoing throughout the year	 Popsticks, coffee stirrers, bundling sticks Unifix Place Value boards TH/H/T/O-laminated Gameboards MAB (for students ready to move on) Number cards 0-9 and place value word cards Dice 1-6, 0-9 sided Bottle tops (to make 1000, 100, 10 & 1 buttons) 3-prong abacus (if available) Calculators Whiteboards Mental routine boards, cloths & markers 	 Spelling theme words Literacy – shared text (e.g. 1 is a Snail, 10 is a Crab); Word wall P.E – counting, organising teams, games, equipment 			
-All numbers ending with the digit 0, 2, 4, 6 or 8 are even and those ending in 1, 3, 5, 7 or 9 are odd -Numbers with more than 1 digit are also classified as odd or even	Strand: Number Sub-strand: Place Value	By the end of Year 3 students classify numbers as either odd of even.	Investigate the conditions required for a number to be odd or even and identify odd and even numbers	 Basic number facts and counting strategies Knowledge of numbers and place value to 1 000 	 Identify even or odd numbers through games or mental routines (e.g. skip counting by twos from different starting numbers; students write numbers or use 0-9 cards to make an odd number that is) Discuss and explain why all numbers that end in digits 0, 2, 4, 6 & 8 are even and that numbers ending in 1, 3, 5, 7 & 9 are odd Use counters/items/people to make even and odd collections Card games – snap on odd total only, snap on even total only Make and test conjectures: Odd and even numbers investigation – What do you think would happen if an odd and even number were added together? What about 2 odd numbers? What about 2 even numbers? Extension: What about 2 odd and even? etc Investigate house numbers in the street – Odd or Even Houses: students make a house using place value representations (square =100, slim rectangle=10, small square=1) What is the value of your house? Make a street using all houses (where do they each belong?) 	Formative Assessment/ Summative Assessment Identify odd and even numbers through class activities (e.g. can you write an even number that is greater than 50 but less than 65) Investigate properties of odd and even numbers – make and test conjectures	Term 1 1 Week *this could also be incorporated as part of the place value unit	 Number cards 0-9/ playing cards/ Uno cards Ball, bean bag for counting games Counters or mixed items for grouping Paper shapes for odd or even house task 	 Literacy – number stories PE – counting games, making even/odd groups 			

Year 3			М	athematics	Term Planner – Western Adelaide Region		(Draft 15/10/13)		Term 1/2	
Big Ideas/ Topic focus	Strand/ Sub Strand	Achievement Standard	Content Descriptor(s)	Student Prior Knowledge	Suggested Teaching & Learning	Experiences	Assessment Focus/ Task	Time Frame	Resources	Links to other learning areas
-There are many different ways to represent numbers, and to add, subtract, divide and multiply numbers -There are strategies that help with addition and subtraction (e.g. commutative properties) -Fluency with number facts is essential for developing and applying efficient mental strategies -Multiplication can be equated to repeated addition and repeating patterns -Division is the inverse operation of multiplication. It also means to make groups of -It is important to recognise each operation and its appropriate use -Exploring generalisations develops number knowledge (e.g. for 3 fours "I know that 4 doubled is 8, so 1 more 4 is 12")	Strand: Number Sub-strand: Place Value	By the end of Year 3 recognise the connection between addition & subtraction and solve problems using efficient strategies for multiplication. They recall addition & multiplication facts for single digit numbers.	Recognise & explain the connection between addition and subtraction Recall addition facts for single- digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation Recall multiplication facts of two, three, five and ten and related division facts Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies	 Solve simple addition and subtraction problems mentally and written Efficient strategies for addition & subtraction Place value to 1 000 Partitioning and renaming numbers Exploring properties of odd and even numbers 	 Efficient counting to reinforce strategies paper (e.g. lolly paper, dotted paper – swebsite for lesson idea) Explore the connection between addition through basic number sentences and be array of 3 and 4 to make, 3 groups of 4 is 12, 12 shared with 4 is 3, 12 shared Record multiple ways of making arrays (e.g. 12, 18, 24) Mental routines to develop fluency and recall of addition and subtraction facts in numbers, exploring known strategies sidoubles and near doubles, rainbow facten (<i>Natural Maths – Early Years Menta</i> Explore efficient strategies for computation/subtraction, open number lines numbers, partial algorithms (<i>Natural Maths Mental Computation</i>) Use thinkboards/mini whiteboards for mexploring problem solving situations (<i>N Clarke</i>) Students create their own problematised demonstrate application of knowledge Explore multiplication strategies throug chart (1-100) – What do we already knows strategies for? What patterns can we se Practice addition/subtraction through given and strategies for? What patterns can we set for the missing number - such as: "We added to 23 the answer is 57, what mig Use part-part whole diagrams to find ur number sentences 	a - use wrapping ee the Natural Maths on and subtraction asic arrays (e.g. an is 12, 4 groups of 3 with 3 is 4) for simple numbers automaticity for the for single-digit uch as subitising, ts and bridge through al Computation) tion with 2 digit unking for s, partitioning of aths – Middle Years ecording when latural Maths, Doug d situation to h the use of a 100s ow? What do we need ee? ames such as hen a number is ht the number be?" aknown quantities in	Diagnostic Assessment One Minute Maths Tests – Peter Westwood (addition, subtraction & multiplication only) Formative Assessment Natural Maths Problem Solving, Book 2; Natural Maths Strategies Book 2; and Place Value book (Ann & Johnny Baker) Doug Clarke – 'Rich Assessment Tasks' (e.g. Dot cards, Lucky Dip Difference) Maths300 tasks (Education Services, Victoria) Thinkboards –applying strategies to problem solving tasks, through recording Summative Assessment Tasks (Western Adelaide Region) -3.2: Grandma's Famous Apple Pies	Begin end of <u>Term 1</u> , then continue in <u>Term 2</u> (5- 6 Weeks) <i>Revise</i> throughout the year through the measure- ment and statistics and probability strands	 Counters-single coloured Number cards 0-9 0-6, 0-9, 1-10 dice Mixed wrapping paper Flashcards – number cards, simple addition & subtraction, arrays Subitising cards – 2 and 3 collections (Professor Dianne Siemon) 1-100, 0-99 number charts Mixed counting games Thinkboards Mental routine boards + markers and cloths Number stories 	 Literacy Number stories P.E – counting games, making groups
-A pattern requires an element of repetition that can be described with a pattern rule -Patterns can be represented in many ways, including using combinations of numbers, objects and symbols -Patterns are all around us End of Term 2.	Strand: Number & Algebra Sub-strand: Patterns & Algebra	By the end of Year 3, students continue number patterns involving addition and subtraction	Describe, continue, and create number patterns resulting from performing addition or subtraction	 Creating and describing patterns Trusting the count & Place value Counting games/ Skip counting 	 Counting games (e.g. pass a ball or beanbag, count by 10's); counting forwards and backwards from any starting point Fill in the missing numbers – skip counting from a range of starting points; skip counting with a range of numbers; skip counting through the tens & hundreds (bridging) 1-50, 100's chart - counting patterns/sequences; mental routines exploring repeated addition/subtraction Open number line for repeated addition/subtraction Counting stories, songs where there is a pattern Orally describe pattern to partner for them to recreate Exploring patterns by combining numbers, objects and symbols; or using a symbol to represent a single number What were the students 		Formative Assessment/ Summative Assessment -Fill in missing numbers from counting patterns -Create own counting pattern and justify choices made -Create a pattern using a combination of numbers, objects and symbols able to do and show? What are	Term 2 (2 weeks) Ongoing throughout the year - informal	 Thinkboards/ whiteboard 1-50, 1-100 charts Story books involving patterms Unifix cubes Ball/beanbag for counting games Songs with clapping patterms/beat further development? 	 English- rhyming words, patterns within words Science – patterns in the environment Art- patterns, clapping beats
requiring addition on Measureme	nal teaching and d nt (see year 2 pla	evelopment the anner for ideas for	begin a new unit begin a new unit begin a new unit	(2-3 weeks)	Future Learning Considerations -What misconceptions did students have? Have these been adequately addressed? -What content is still to be covered? What are the next big ideas? What are my learning goals?					