| 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Week's 1\& 2-Focus on revising Trusting the Count 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 (Mental Computation - Early Years, Ann \& Johhny Baker, Natural Maths) |  |  |  |  |  |  |  |  |  |
| -Place value has a logical, repeating pattern that extends to the thousands and beyond <br> -Numbers can be renamed in various ways (i.e. 254 can be renamed as 25 tens and 4 ones, or 254 ones) <br> -In place value there are names for each new unit (multiples of 10) (i.e. tens, hundreds, thousands) | Strand: <br>  <br> Algebra <br> Sub-strand: <br> Place Value | By the end of <br> Year 3 <br> students count to and from 10000. | Recognise, model, <br> represent and order numbers to at least 10000 <br> Apply place value to partition, rearrange and regroup (rename) numbers to at least 10000 to assist calculations \& solve problems | - Place value knowledge to 1000 <br> (TH/H/T/O) <br> - Counting strategies and counting patterns <br> - Adding 10, adding 100 <br> - Using a 100s board <br> - Ten of these is one of those ( e.g. 10 tens is 100, 10 hundreds is 1000) <br> - Comparing and ordering numbers <br> - 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 <br> - Fill a 'mystery box' of place value items <br> - Mental routines ( 100 's chart, place value buttons) - Natural Maths; Natural maths Place Value software <br> - Problematised situations (Natural Maths Strategies, Book 2 \& Problem Solving Books 2 \& 3) <br> - TH/H/T/O boards, whiteboards- using popstick bundles or lids marked with 1, 10, 100, 1000 (MAB only recommended at year 3 for students showing understanding of the new units, i.e. 10 tens is 100) <br> - Thinkboard -The answer is 1000 ; The answer is...(student decided) <br> - Sequence numbers with a specified number of digits. Discuss highest, lowest numbers, etc. as small and larger groups <br> - 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. Extension - change the order of the number (e.g. 6, 62, 462, etc.) <br> - 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 1000 instead of adding <br> - 0-9 Cards and PV word cards - compare, order, count on, count back in place value parts, rename <br> - Number expanders (TH, H,T,O) for renaming <br> - 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) <br> - Interactive whiteboard place value activities, such as those found on Scootle/Moodle (e.g. Wishball - tens/ hundreds/ decimals and more), strategic maths, rainforest maths, interactive hundreds boards and dice, etc. <br> - Place Value games and problem solving - see Big Ideas in Number; Michael Ymer's games 'Make a Number/Break a Number, Jackpot \$100; Ann \& Johnny Baker Natural Maths <br> - (See below for an odd/even number \& place value lesson idea) | Diagnostic Assessment <br> Big Ideas in Number- <br> Place Value diagnostic test <br> (Professor Dianne Siemon) <br> Formative Assessment <br> Natural Maths Problem <br> Solving, Book 2; Natural <br> Maths Strategies Book 2; <br> and Place Value book (Ann <br> \& Johnny Baker) <br> Doug Clarke - 'Rich <br> Assessment Tasks' <br> Maths300 tasks (Education <br> Services, Victoria) <br> Thinkboards - make, name, record, rename <br> Place value games - BIN, Michael Ymer, Natural Maths <br> Summative Assessment <br> Tasks (Western Adelaide Region) <br> -3.1: Take 4! | Term 1 <br> (5-6 weeks) <br> Ongoing throughout the year | - Popsticks, coffee stirrers, bundling sticks <br> - Unifix <br> - Place Value boards TH/H/T/Olaminated <br> - Gameboards <br> - MAB (for students ready to move on) <br> - Number cards 0-9 and place value word cards <br> - Dice 1-6, 0-9 sided <br> - Bottle tops (to make 1000, 100, 10 \& 1 buttons) <br> - 3-prong abacus (if available) <br> - Calculators <br> - Whiteboards <br> - Mental routine boards, cloths \& markers | - Spelling theme words <br> - Literacy shared text (e.g. 1 is a Snail, 10 is a Crab); Word wall <br> - 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 <br> -Numbers with more than 1 digit are also classified as odd or even | Strand: <br> Number <br> Sub-strand: <br> Place Value | By the end of <br> Year 3 <br> students classify numbers as either odd or 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 <br> - Knowledge of numbers and place value to 1000 | - 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...) <br> - 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 <br> - Use counters/items/people to make even and odd collections <br> - Card games - snap on odd total only, snap on even total only <br> - 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 an even? etc... <br> - 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 <br> 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) <br> Investigate properties of odd and even numbers make and test conjectures | Term 1 <br> 1 Week <br> *this could also be incorporated as part of the place value unit | - Number cards - 0-9/ playing cards/ Uno cards <br> - Ball, bean bag for counting games <br> - Counters or mixed items for grouping <br> - Paper shapes for odd or even house task | - Literacy number stories <br> - PE counting games, making even/odd groups |


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| -There are many different ways to represent numbers, and to add, subtract, divide and multiply numbers <br> -There are strategies that help with addition and subtraction (e.g. commutative properties) <br> -Fluency with number facts is essential for developing and applying efficient mental strategies <br> -Multiplication can be equated to repeated addition and repeating patterns <br> -Division is the inverse operation of multiplication. It also means to make groups of <br> -It is important to recognise each operation and its appropriate use <br> -Exploring generalisations develops number knowledge (e.g. for 3 fours "I know that 4 doubled is 8 , so 1 more 4 is $12^{\prime \prime}$ ) | Strand: <br> Number <br> Sub-strand: <br> Place Value | By the end of <br> Year 3 <br> recognise the connection between addition \& subtraction and solve problems using efficient strategies for multiplication. <br> They recall addition \& multiplication facts for single digit numbers. | Recognise \& explain the connection between addition and subtraction <br> Recall addition facts for singledigit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation <br> Recall multiplication facts of two, three, five and ten and related division facts <br> 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 <br> - Efficient strategies for addition \& subtraction <br> - Place value to 1000 <br> - Partitioning and renaming numbers <br> - Exploring properties of odd and even numbers | - Efficient counting to reinforce strate paper (e.g. Iolly paper, dotted pape website for lesson idea) <br> - Explore the connection between ad through basic number sentences and array of 3 and 4 to make, 3 groups is 12 , 12 shared with 4 is 3,12 sha <br> - Record multiple ways of making ar (e.g. 12, 18, 24) <br> - Mental routines to develop fluency recall of addition and subtraction fa numbers, exploring known strategi doubles and near doubles, rainbow ten (Natural Maths - Early Years N <br> - Explore efficient strategies for com numbers through strategies such a addition/subtraction, open number numbers, partial algorithms (Natura Mental Computation) <br> - Use thinkboards/mini whiteboards exploring problem solving situation Clarke) <br> - Students create their own problem demonstrate application of knowled <br> - Explore multiplication strategies thr chart (1-100) - What do we already strategies for? What patterns can <br> - Practice addition/subtraction through Michael Ymer's 'Jackpot 1000’ gam <br> - Find the missing number - such as added to 23 the answer is 57 , what <br> - Use part-part whole diagrams to find number sentences | - use wrapping <br> e the Natural Maths <br> and subtraction sic arrays (e.g. an <br> is 12, 4 groups of 3 <br> with 3 is 4) <br> or simple numbers <br> utomaticity for the r single-digit ch as subitising, and bridge through Computation) on with 2 digit nking for partitioning of hs -Middle Years <br> cording when tural Maths, Doug <br> situation to <br> the use of a 100 s <br> $w$ ? What do we need <br> mes such as <br> n a number is t the number be?" nown quantities in | Diagnostic Assessment One Minute Maths Tests Peter Westwood (addition, subtraction \& multiplication only) <br> Formative Assessment <br> Natural Maths Problem Solving, Book 2; Natural Maths Strategies Book 2; and Place Value book (Ann \& Johnny Baker) <br> Doug Clarke - 'Rich Assessment Tasks' (e.g. Dot cards, Lucky Dip Difference) <br> Maths300 tasks (Education Services, Victoria) <br> Thinkboards -applying strategies to problem solving tasks, through recording <br> Summative Assessment Tasks (Western Adelaide Region) <br> -3.2: Grandma's Famous Apple Pies | Begin end of Term 1, then continue in Term 2 <br> (5-6 Weeks) <br> Revise throughout the year through the measurement and statistics and probability strands | - Counterssingle coloured <br> - Number cards 0-9 <br> - 0-6, 0-9, 1-10 dice <br> - Mixed wrapping paper <br> - Flashcards number cards, simple addition \& subtraction, arrays <br> - Subitising cards - 2 and 3 collections (Professor Dianne Siemon) <br> - 1-100, 0-99 number charts <br> - Mixed counting games <br> - Thinkboards <br> - Mental routine boards + markers and cloths <br> - Number stories | - Literacy Number stories <br> - 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 | Strand: <br>  <br> Algebra <br> Sub-strand: <br>  <br> Algebra | By the end of <br> Year 3, <br> students <br> continue <br> number <br> patterns <br> involving <br> addition and <br> subtraction | Describe, continue, and create number patterns resulting from performing addition or subtraction | - Creating and describing patterns <br> - Trusting the count \& Place value <br> - Counting games/ Skip counting | - Counting games (e.g. pass a ball counting forwards and backwards <br> - Fill in the missing numbers - skip starting points; skip counting with counting through the tens \& hund <br> - 1-50, 100's chart - counting patte routines exploring repeated additio <br> - Open number line for repeated ad <br> - Counting stories, songs where th <br> - Orally describe pattern to partner <br> - Exploring patterns by combining symbols; or using a symbol to rep | bag, count by 10's); ny starting point <br> g from a range of e of numbers; skip ridging) <br> uences; mental raction <br> ubtraction <br> pattern <br> m to recreate <br> s, objects and <br> a single number | Formative Assessment/ Summative Assessment <br> -Fill in missing numbers from counting patterns <br> -Create own counting pattern and justify choices made <br> -Create a pattern using a combination of numbers, objects and symbols | Term 2 <br> (2 weeks) <br> Ongoing throughout the year informal | - Thinkboards/ whiteboard <br> - 1-50, 1-100 charts <br> - Story books involving patterns <br> - Unifix cubes <br> - Ball/beanbag for counting games <br> - Songs with clapping patterns/beat | - Englishrhyming words, patterns within words <br> - Sciencepatterns in the environment <br> - Artpatterns, clapping beats |
| End of Term 2/ Beginning of Term 3: Revise any content requiring additional teaching and development then begin a new unit on Measurement (see year 2 planner for ideas for teaching length). |  |  |  | $\begin{gathered} \text { Term } 2 \\ \text { (2-3 weeks) } \end{gathered}$ | Future Learning Considerations <br> - What were the students able to do and show? What a <br> -What misconceptions did students have? Have these b -What content is still to be covered? What are the next | - What were the students able to do and show? What are the areas needing further development? <br> -What misconceptions did students have? Have these been adequately addressed? <br> -What content is still to be covered? What are the next big ideas? What are my learning goals? |  |  |  |  |

