**Class: 2 / 3 S MATHEMATICS PROGRAM Teacher: Liane Smith**

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| **TERM** | **1** | | | **2** | | | | | **3** | | | | **4** | | |  | **STRAND** | | | | | | |
| **WEEK** | **1** | **2** | **3** | | **4** | | **5** | **6** | | **7** | | **8** | | **9** | **10** | **N** | **PA** | | **D** | | **M** | **SG** |
| **TOPIC: WHOLE NUMBER** | | | | | | | **OUTCOME & KEY IDEAS:**  **NS1.1** Read, order and represent three-digit numbers ; Sort, order and count money using face value  **NS2.1** Use place value to read, represent and order numbers up to four digits | | | | | | | | | | | | | | | | | | |
| **WORKING MATHEMATICALLY: Questioning Reflecting Applying Strategies Communicating Reasoning** | | | | | | |
| **LEARNING ACTIVITIES ( including CMIT/DENS):**   |  | | --- | | **MATHS MAINTENANCE:**  Counting forwards and backwards on and off decade; Ordinal numbers  **WARM UPS**  4x tables |   **PRE-ASSESSMENT:** Children identify place value of digits in a 3 / 4 digit number.  ***WORKING AT NS1.1***   * **Beat the Clock** Children practise filling in a hundreds square. When they have had enough practise they write the numbers one to one hundred in blank hundreds squares while you time them. * *DENS 1*     **Big Numbers**   * Children work in small groups and record number plates on cars that go past the school. They put the numbers into order. * Give groups of children old catalogues to look through to find items that cost over $100 but less than $1000. Children can cut out the items and group them according to price. * Children are given a budget of $1000. What can you buy with $1000?   ***WORKING BEYOND NS1.1 and WORKING AT NS2.1***  **Three- and Four-Digit Numbers** In small groups, students use a pack of playing cards with the tens and picture cards removed. The Aces are retained and count as 1 and the Jokers are retained and count as 0. Student A turns over the first 3 cards and each player makes a different three-digit number. Student A records the numbers and puts the cards at the bottom of the pile. They each take a turn turning over three cards and recording the group’s three-digit numbers. When each student has had a turn they sort and order their numbers. Students extend the game by making four-digit numbers. Possible questions include: . Can you read each number aloud? . Can you order the numbers in ascending and descending order? . Can you state the place value of each numeral? . What is the largest/smallest number you can make using three cards/four cards? . What is the next largest/smallest number you can make using three cards/four cards? . Can you identify the number before/after one of your three digit/four-digit numbers? . Can you find a pattern? How can you describe your pattern? How can you continue the pattern? . How many different ways can you represent each number? (expanded notation, in words) . Can you count forwards/backwards by tens/hundreds from one of your three-digit/four-digit numbers? . Can you round one of your three-digit or four-digit numbers to the nearest hundred/thousand? *Variation:* Students could represent numbers using numeral expanders, Base 10 material, or expanded notation, to show place value.  **Counting Races** Students are divided into two groups. The teacher nominates a starting number eg 231. One group counts by tens, while the other counts by hundreds from the starting number. Both groups start counting and are asked to stop at the same time. Before commencing the activity, students discuss: . Will both groups start/finish on the same number? Why? . Which group will stop on the highest number? Why? . Will both groups count number 281? Why?/Why not? . What are some of the numbers both groups will count? . What is a number only your group will count? *Variation:* Students play ‘Buzz’ counting by tens on and off the decade. They ‘buzz’ on the hundreds.  **Four-Digit Number Hunt** Students investigate examples of numbers up to 9999 seen in the environment, the media, on the internet, or on car number plates. Students make displays where possible. Students discuss the use of zero as a place holder and at the beginning of a number eg 8065, ARK – 082. Students discuss the place value of the numerals eg where all numbers are the same, as in 3333. *Extension:* Students put numerals in ascending and descending order.  **Wipe-Out** Students are asked to enter a four-digit number into a calculator eg 2657. The teacher then asks the students to ‘wipe out’ one digit ie change it to a zero. In the example above, ‘wiping out the 5’ would require a student to change the number to 2607 by subtracting 50. Students could demonstrate this using Base 10 material.  **(A) WM How Many Ways?** The teacher selects a four-digit number and records it on the board. Students express and/or present the number in as many ways as they can (a time limit may be imposed) with Base 10 material eg 3605 three thousand, six hundred and five 3000+600+5 3600+5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| **CONSOLIDATION AND PRACTICE –**  Maths In a Box Activities: Cards 16 - 21  Targeting Maths 2 pp 36,37 & 70, 71  Targeting Maths 3 pp 78,79 & 116 - 119 | | | | | | | | | | | | | | | | | | | | **ASSESSMENT** – Marked with an (**A)** | | | | | |
| **RESOURCES:**   * K-6 Mathematics Syllables * K-6 Mathematics Work Samples * TESS Software * Maths In A Box 1 Cards * Interactive Maths sites**:**   <http://www.topmarks.co.uk/>  <http://multiplication.com/index.htm>  <http://www.smartkiddies.com.au/>  <http://www.coolmath4kids.com/>  <http://www.crickweb.co.uk/>  <http://www.woodlands-junior.kent.sch.uk/maths/index.html>  dice, number cards, popsticks, Base 10 material, numeral expanders, calculators, place value chart, newspaper, internet | | | | | | | | | | | | **LANGUAGE MODELLED:**  Forward, backward, more than, less than, three-digit, numerals, representing, place value, ordering, forwards, backwards, on the decade, off the decade, rounding, comparing,  *zero, digit, number, units, before, after, ones, tens, hundreds, thousands, place value, less than, forwards, backwards, greater than, largest, smallest, highest, lowest, trading, decade, rounding, estimating, less than, greater than, represent, ascending, descending ‘1349 is the same as 1 thousand, 34 tens and 9 units.’ ‘One thousand two hundred and fifty-three.’* | | | | | | | | | | **EVALUATION:** | | | |