**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK: 4 | STRAND: NUMBER AND ALGEBRA | **SUB-STRAND**: WHOLE NUMBERS | **WORKING MATHEMATICALLY:**  MAe-1WM & MAe-2WM |
| **OUTCOMES**: MAe-4NA | | **Counts to 30, and orders, reads and represents numbers in the range 0 to 20** | | |
| **CONTENT:** (ACMNA001) | | **Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point**   * read and use ordinal names to at least ‘tenth’ | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | **Pre Assessment - Ordinal Numbers**  Pencil/paper test - have a picture of a race eg. Turtles, people with a clearly designated "finish line". Ask students to colour the first turtle red; tick the ninth; put a cross on the second turtle | | |
| WARM UP / DRILL | | **Floor Races -** students have ‘animal races’ e.g crab walking, frog hopping, caterpillar crawling and discuss who came first, second, third etc | | |
| NEWMAN’S PROBLEM orTENS ACTIVITY | |  | | |
| QUALITY TEACHING ELEMENTS | | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Metalanguage * Deep understanding * Substantive communication | * Engagement * Social support * Students’ self-regulation | * Background knowledge * Knowledge integration * Narrative |
| RESOURCES | | Pre-assessment sheet – turtles showing finish line, toy cars, sets of ordinal cards to 10th, duplo train carriages, small plastic teddy bears, dice, playing boards (Teddy Bear Race BLM p.66 DENS Stage 1), jelly made in a tray, confectionery (lolly) frogs | | |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | |
| **Teach and define metalanguage -** ordinal names and corresponding written ordinals  **Explicit Teaching**  Place ten objects in a straight line; show students ordinal cards labelled "1st" to "10th". Place ordinal cards in a sequential line under row of toys. Get students to repeat this (shuffle cards).  **Toy Car Race**  Teacher sets up some toy car races in groups of ten. Students race the cars and order them from first to tenth. Then children label them with ordinal cards. Discuss orders.  **In a Row**  Stand ten students in a row and get students to sequence the ordinal cards.  Place ten chairs in a row and give the following instructions " ….. sit on the fourth  chair" etc. Place ten toys in a row; teacher points to a toy and students verbalise the  ordinal name.  **More Than The 3 Billy Goats Gruff**  Extend the story of ‘The 3 Billy Goats Gruff’ to include 10 goats using 10 children of different sizes as the goats. Give each one a numeral card to hold and mark areas at the front of the class as the fields and the bridge. As you re-tell the story ask the children to respond to questions you ask them using their fingers.  e.g Which goat is second in line? After the fourth goat crosses over, who will go next?  ~ 28 ~• Which goat is second in line?  • Show me which goat is sixth in line?  • Which goats are between the seventh and tenth goats?  • How do you know?  • If the third goat has gone across the bridge how many are on the other side  now?  • Which goat is before the tallest goat?  • Which goat is behind the tallest goat?  • Which goat is behind the second smallest?  • Which goat will be the last to cross the bridge?  • How many will have crossed then?  • If the fourth goat has crossed over, who will be next? | LEARNING SEQUENCERemediation | **Ordinal Numbers – 1st to 5th**  Adapt the activities below to include only ordinals in the range 1st to 5th |
| LEARNING SEQUENCEES1 | **Guided and Independent Activities**   * **Ordering Train Carriages**   Collect duplo train carriages, connect carriages and then children put ordinal labels on them  with bluetac, discuss the order of each carriage. Make up stories about carriages e.g. the  first two carriages are full, which carriage can you get on.   * **Teddy Bear Race**   In pairs, students are given six teddy bear counters, a die and a playing board (as shown).    Students line up the plastic teddies at the start of the playing board, so that one teddy is on each numeral. Students take turns to roll a die and move a teddy one space each time its corresponding numeral is rolled. Play continues until all teddies reach ‘home’ on their playing board.As each bear reaches home, students label each bear with its position in the race.      Possible questions include:   * Which bear will win the race most of the time? Why? * Where did teddy number one come in the race?   (Adapted from CMIT)   * **Frogs in the Pond Race**   Make individual/class blue jellies in a chinese container /tray, teacher places frogs in a race on jelly,  children scoop out first, last, third frog to eat etc.  **Assessment –** Worksheet – ten people standing in a line – draw lines from ordinal numbers (1st to 10th) to each person, indicating their position in the line |
| LEARNING SEQUENCES1 | * **Extension** – Adapt ‘Toy Car Race’ game using ordinal cards to 15th/20th |
| **EVALUATION & REFLECTION** | Discuss ordinals in relation to how they help us determine the position of objects.  Ask students how they remember the order of numerals.  Ask students to explain in their own words what they have learnt. |

* All assessment tasks should be written in **red** and planning should be based around developing the skills to complete that task.
* Assessment rubrics or marking scale should be considered.