**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 4 | STRAND: Number and Algebra | **SUB-STRAND:** Whole Number | **WORKING MATHEMATICALLY:** MAe-1WM, MAe-2WM &MAe-3WM |
| OUTCOMES: Mae-4NA | **Uses concrete materials and/or pictorial representations to support conclusions****Uses objects, actions, technology and/or trial and error to explore mathematical problem****Uses**  |
| **CONTENT:**  | **Compare and order numbers and groups of objects*** Apply counting strategies to solve simple everyday problems and justify answers
* Use the term ‘is the same as’ to express equality of groups
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Ask children what the term ‘the same as’ means. Ask students to give an example of something that is the same as something. Get children to make you two groups of objects that are the same or equal and note their responses.
* Ask children what is one more than or two more than a particular number. Ask children what is one or two less than a particular number.
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| WARM UP / DRILL | * Flash cards of ten frames and dot patterns
* Circle champion, dice game where children roll two dice and add the two numbers together. Encourage children to count on from the largest number.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  |  |
| QUALITY TEACHING ELEMENTS | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Deep knowledge
* Deep understanding
* Problematic knowledge
* Higher-order thinking
* Metalanguage
* Substantive communication
 | * Explicit quality criteria
* Engagement
* High expectations
* Social support
* Students’ self-regulation
* Student direction
 | * Background knowledge
* Cultural knowledge
* Knowledge integration
* Inclusivity
* Connectedness
* Narrative
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| RESOURCES | Number cards, containers, pegs, cardboard strips, DENS text, ten frames, dice, counters, paperclips,  |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
|  **Guess the number**Display a hundred chart or pattern board. Select a number in a specified range eg 1-30. Students attempt to guess the “secret” number. If the guess is incorrect, cover the numeral on the hundred chart with a counter or flip the number over if using a pattern board. Continue the activity until the students are able to identify the number correctly. As the students become more competent, extend the range of numerals.**Kookaburras**Provide a collection of feathers. Instruct the students to place equal groups of feathers onto cardboard outlines of birds. Ask the students to determine the total number of feathers, using rhythmic counting. Discuss whether the groups of feathers are the same/equal.**Ladybirds**Provide students with outlines of ladybirds and a supply of dot strips.Ensure there are enough dot strips to provide two for each ladybird. Each dot strip should display the same number of dots. Students place two dot strips onto each ladybird. They then determine the total number of dots. Discuss if the dots on each side are the same/equal. | LEARNING SEQUENCERemediationES1  | **Take a Numeral**Provide the students with a set of numeral cards for the numbers one to six (see DENS p.57). Arrange the numeral cards face up on the floor in front of the students. The students take turns to roll a standard die and select a corresponding numeral card. If the card has already been taken the student forfeits a turn. Play continues until all cards have been taken.**Teddy Bear Race**Construct playing boards for each pair of students using the DENS p.66.Line up 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 |
| LEARNING SEQUENCES1 | **Farms** In groups, students are given a place mat with three, four or five ovals on it to represent paddocks. They are also given a collection of plastic animals. Student A rolls a die and all of the students place that number of animals in each paddock. Each student is asked to describe their farm and is encouraged to use numbers and the phrase “the same as’ in their description. Discuss how many animals they would have if they had one more, two more, one less or two less etc. Students record their findings. **Groups of Children** Students skip within a given area eg a netball court. The teacher calls out a number and students make groups of that number.Possible questions include: • do all groups have the same number of students? * are all the groups the same/equal?

• how can we check this? * Ask what would happen to the groups if we added one more, took one away etc
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| LEARNING SEQUENCEExtension Early S1 |

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| **Where’s the Number?** Each student is provided with a strip of cardboard that represents a number line, with zero written at one end and 30 written at the other end. Using a peg as a marker, the students are asked to locate a particular number on the number lines and discuss its placement in relation to 0 and 10, 11-20,21-30  Ask what number is 3 more or 3 less, 5 more or 5 less etc. |
|  **Bingo** Construct bingo cards using numerals in the range eleven to thirty. (The cards may contain a numeral more than once.) Place a set of numeral cards, which correspond to the numerals on the bingo cards, into a container. The teacher, or a nominated student, draws out the numeral cards one at a time and calls out the drawn number. Students cover the corresponding numerals on their bingo cards with counters as the numbers are called. The winner is the first to cover all the numerals on his or her card  |
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| **EVALUATION & REFLECTION** | Discuss what happens to a group when we add more or take some away. Discuss the words more and less. Ask what happens to a group when you add more, what happens when you take items away.  |

* 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.