**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK: 2 | STRAND: MEASUREMENT & GEOMETRY | **SUB-STRAND:** LENGTH | **WORKING MATHEMATICALLY:**  MAe-1WM &MAe-3WM |
| OUTCOMES: MAe-9MG | | **Describes and compares lengths and distances using everyday language.** | | |
| **CONTENT:** | | **Use direct and indirect comparisons to decide which is longer, and explain their reasoning using everyday language** (ACMMG006)   * use everyday language to describe distance, eg near, far, nearer, further, closer * use comparative language to describe length, eg longer, higher, taller than, shortest, lower than, longest, the same as * identify an object that is longer or shorter than another, eg ‘Find an object longer than this pencil.’ | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | * Sort a group of objects into long and short categories. | | |
| WARM UP / DRILL | | * Cut a streamer the same length as a desk. Check to make sure the streamer extends from one end to the other along the edge of the desk. Compare other desks. Repeat for the width of the desks. | | |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION | | What objects can you find that are the same as, longer or shorter than this streamer? | | |
| 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 |
| RESOURCES | | A variety of construction materials (Lego, Duplo, Zoobs etc), everyday objects from the classroom for comparing lengths (toys, crayons, plastic cutlery, cars etc), streamers, collection of sticks, ipads or work sheets for recording answers, counters.  (Teacher Resources – “Maths Plus K, Teachers resource and assessment guide”) | | |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | |
| **Near and far.** Discuss the location of rooms or buildings in the school in terms of whether they are near to or far from the classroom.    **Taller and shorter**. Compare the heights of two students when both are standing and when one is standing on a chair.  **Tallest and shortest**. \*Students make towers using blocks or unifix cubes. Who made the tallest tower? The shortest tower? Compare and discuss.  \*Who is the tallest in the room? The shortest? Measure everyone using paper streamers. Label and display.  \*Give each child a counter. Children with black hair put their counters in a column. Children with other coloured hair put their counters into columns. Which column is the tallest? The shortest?  **Compare** other pairs of objects to determine the longer and shorter, the nearer and further, the higher and lower etc. Then look at groups of objects to determine the longest and shortest, highest and lowest etc.  **Vocabulary**. *Near, far, longer, longest, higher, highest, nearer, further, closer,*  *taller than, shortest, lower than, the same as, as tall as.* | LEARNING SEQUENCEPre Foundation Skills | * Use playdough or clay to make short and long snakes, and tall and short trees. |
| LEARNING SEQUENCEES1 | * Investigations:  1. In small groups, children estimate which of 2 objects is longer, then check by placing the two alongside each other. Repeat with other pairs of objects, stating which is longer or taller. 2. Find a friend that is taller than you. Find another that is shorter than you. Is there anyone about the same height? Draw results. 3. Length hunt. Find objects which are – taller than this stick, deeper than this plant pot, not as long as your pencil, shorter than your little finger, closer than the computer, further than the carpark etc.  * **Assessment** – Stick sorting. Sort a collection of sticks into those shorter than, about the same length as and longer than a given stick. Record the numbers in each category. |
| LEARNING SEQUENCEExtensionS1 | Children collect leaves of different lengths and sizes.   * Glue them on to cardboard. Label the longest, shortest, thinnest, thickest, widest, narrowest. * Glue leaves onto cardboard in order from the shortest to tallest, or from shortest to longest. |
| **EVALUATION & REFLECTION** | Student Engagement: Achievement of Outcomes:  Resources: Follow Up: |

* 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.