**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK: 1 | 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)   * identify the attribute of ‘length’ as the measure of an object from end to end * make and sort long and short constructions from concrete materials * use everyday language to describe length, eg long, short, high, tall, low | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | | * Children describe the constructions they build, e.g. “I built a tall house. It has long, narrow windows” | | |
| WARM UP / DRILL | | * Provide students with a variety of building materials, e.g. Clever Sticks, straws, Lego, Duplo, Zoobs and allow them to freely construct and arrange. | | |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION | | Students play with a variety of construction activities | | |
| 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), ipads or worksheets for recording answers, chalk, art/craft materials to create a tree.  Literature - Jack and the Beanstalk, The Very Hungry Caterpillar (Carle), Alfie’s Feet (Hughes), Titch, You’ll Soon Grow into Them (Hutchins).  (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 | |
| * **Long and short.** As a class, discuss and clarify a group of familiar objects in terms of ‘long’ and ‘short’. * **Tall and short.** Read Jack and the Beanstalk. Discuss the heights of Jack and the giant. On a hard surface, trace around the body outline of a short student and a tall (willing) adult. Compare, discuss, label outlines. * **High and low**. Discuss the relative position of objectsin the classroom, e.g. “the clock is up high, but the bin is down low” * Create a wall display of tree. Children place pictures or objects onto the tree and describe their position on the tree. * **Guessing Games.**   “I am an animal with a tall neck. What am I?”  “I spy with my little eye, something that is up high.”   * **Incidental activities.** Use opportunities that arise during the day to describe objects as being long, short, tall, high and low. e.g. “Let’s walk to the tall tree.” “Throw a ball high.” * **Vocabulary**. *long*, *high*, *tall*, *short, low*, *the* *same as, wide, thick, thin, fat, shallow, deep, straight, close.* | LEARNING SEQUENCEPre Foundation Skills | * In pairs, children use construction material to build a long fence. |
| LEARNING SEQUENCEES1 | * Investigations:  1. In small groups, children find four objects that are long and four that are short. Discuss findings with whole class. 2. Set the class a ‘long pace’ challenge. Children step out five long paces from a starting line and see who goes the furthest. Repeat with a different number of paces. 3. Children compare heights with a partner. Under the correct headings, draw/record who is tall and who is short. 4. Using worksheets or ipads for recording answers, in the playground, find five objects that are tall and another five that are up high.  * **Assessment** – Students sort objects into long and short groups, or pictures of objects into tall and short groups. |
| LEARNING SEQUENCEExtensionS1 | * Compare similar objects using comparative language (longer, shorter). Find objects longer or shorter than a given item. |
| **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.