**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 6 | STRAND: Measurement & Geometry | **SUB-STRAND:** **Length 2** | **WORKING MATHEMATICALLY:** MA1-1WM MA1-3WM |
| OUTCOMES: MA1-9MG | **Measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres** |
| **CONTENT:**  | **Compare and order several shapes and objects based on length, using appropriate uniform informal units (ACMMG037)*** use computer software to draw a line and use a simple graphic as a uniform informal unit to measure its length (Communicating)
* compare and order two or more shapes or objects according to their lengths using an appropriate uniform informal unit
* compare the lengths of two or more objects that cannot be moved or aligned (Reasoning)
* record length comparisons informally using drawings, [numerals](http://syllabus.bos.nsw.edu.au/glossary/mat/numeral/?ajax" \t "_blank" \o "Click for more information about 'numerals') and words, and by referring to the uniform informal unit used
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Students are provided with a texta and a long strip of paper to use as an informal unit tape to measure various objects and compare results with other groups
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| WARM UP / DRILL | * Flashcards with length words together and/ or order eg, tall, as tall as, long, longer, longest, small, short, shorter, shortest, end-to-end, side-by-side, no overlaps, no gaps, estimate, measure, length, width
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | Using two different objects, compare and contrast them. Use language to length. |
| 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 | Computers,i-pad, kidspix program, snakes and ladders boards (print images of boards), string, streamers |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| * **Explicitly communicate lesson outcomes and work quality.**
* **Teach and review** how to measure with no gaps or overlaps. How do you know when an object is longer, shorter or wider than another object?
* Discuss how to measure curved and straight lines. How can you compare them?
* **Define and Reinforce metalanguage used in the unit** e.g. tall, taller, short, shorter, long, longer, wide, wider, thin, thinner, fat, fatter, straight, straighter, about the same, as tall as, width, length
 | LEARNING SEQUENCERemediationES1  | * **Kidspix:** Students draw lines that are tall and short on an i-pad. They compare and identify which lines are short and long on their i-pad.
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| LEARNING SEQUENCES1 | **Whole Class Instruction and Modelled Activities*** **Kidspix**: In pairs, students draw lines of various lengths then use a stamp to measure the length of the line by repeated stamping along the line.
* **Investigation:**  Snakes and Ladders boards – Students suggest ways of comparing the lengths of the snakes and ladders, e.g. cut a piece of string, streamer. Record findings. **Assessment- Width Hunt:** Ask students to suggest ways of comparing the width of the door to other objects. E.g. cut a piece of string equal to the width of the door. Use this to find other objects taller and longer than the width of the door.
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| LEARNING SEQUENCEExtension Early S2 | * **Atlas Places:** Students can work in small groups or in pairs. Using Atlases cut straws the length of the scale marker to measure the distance of places on maps. Record the information in a table and order from longest to shortest.
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| **EVALUATION & REFLECTION** | Student Engagement: Resources:Achievement of Outcomes: 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.