**LENGTH 1 – STAGE 1**

**OUTCOMES**

A student:

* MA1-1WM - describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols
* MA1-3WM - supports conclusions by explaining or demonstrating how answers were obtained
* MA1-9MG - measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres

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| **CONTENT** | **plan** |
| **Measure and compare the lengths of pairs of objects using uniform [informal units](http://syllabus.bos.nsw.edu.au/glossary/mat/informal-unit/?ajax" \t "_blank" \o "Click for more information about 'informal units') (ACMMG019)** | 1 |
| use uniform informal units to measure lengths and distances by placing the units end-to-end without gaps or overlaps | 1 |
| select appropriate uniform informal units to measure lengths and distances, eg paper clips instead of pop sticks to measure a pencil, paces instead of pop sticks to measure the length of the playground (Problem Solving) | 1 |
| measure the lengths of a variety of everyday objects, eg use handspans to measure the length of a table (Problem Solving) | 2 |
| explain the relationship between the size of a unit and the number of units needed, eg more paper clips than pop sticks will be needed to measure the length of the desk (Communicating, Reasoning) CT | 2 |
| record lengths and distances by referring to the number and type of uniform informal unit used http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png | 2 |
| investigate different informal units of length used in various cultures, including those used in Aboriginal communities (Communicating) UHC | 3 |
| compare the lengths of two or more objects using appropriate uniform informal units and check by placing the objects side-by-side and aligning the ends | 3 |
| explain why the length of an object remains constant when units are rearranged, eg 'The book was seven paper clips long. When I moved the paper clips around and measured again, the book was still seven paper clips long' (Communicating, Reasoning) CT | 3 |
| estimate linear dimensions and lengths of curves by referring to the number and type of uniform informal units used and check by measuring | 4 |
| discuss strategies used to estimate lengths, eg visualising the repeated unit, using the process 'make, mark and move' (Communicating, Problem Solving) | 4 |

**LENGTH 2 – STAGE 1**

**OUTCOMES**

A student:

* MA1-1WM - describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols
* MA1-3WM - supports conclusions by explaining or demonstrating how answers were obtained
* MA1-9MG - measures, records, compares and estimates lengths and distances using uniform informal units, metres and centimetres

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| **CONTENT** | **plan** |
| **Compare and order several shapes and objects based on length, using appropriate uniform [informal units](http://syllabus.bos.nsw.edu.au/glossary/mat/informal-unit/?ajax" \t "_blank" \o "Click for more information about 'informal units') (ACMMG037)** |  5 |
| * relate the term 'length' to the longest dimension when referring to an object http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
 | 5 |
| * make and use a tape measure calibrated in uniform informal units, eg calibrate a paper strip using footprints as a repeated unit
 | 5 |
| * use computer software to draw a line and use a simple graphic as a uniform informal unit to measure its length (Communicating) CT
 | 6 |
| * compare and order two or more shapes or objects according to their lengths using an appropriate uniform informal unit
 | 6 |
| * compare the lengths of two or more objects that cannot be moved or aligned (Reasoning) CT
 | 6 |
| * 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
 | 6 |
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| **Recognise and use formal units to measure the lengths of objects** | 7 |
| * recognise the need for formal units to measure lengths and distances
 | 7 |
| * use the metre as a unit to measure lengths and distances to the nearest metre or half-metre
 | 7 |
| * explain and model, using concrete materials, that a metre-length can be a straight line or a curved line (Communicating, Reasoning)
 | 7 |
| * record lengths and distances using the abbreviation for metres (m) http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
 | 8 |
| * estimate lengths and distances to the nearest metre and check by measuring
 | 8 |
| * recognise the need for a formal unit smaller than the metre
 | 9 |
| * recognise that there are 100 centimetres in one metre, ie 100 centimetres = 1 metre
 | 8 |
| * use the centimetre as a unit to measure lengths to the nearest centimetre, using a device with 1 cm markings, eg use a paper strip of length 10 cm
 | 9 |
| * record lengths and distances using the abbreviation for centimetres (cm) http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
 | 9 |
| * estimate lengths and distances to the nearest centimetre and check by measuring
 | 9 |