**MATHEMATICS STAGE 2**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK:  | STRAND: Measurement and Geometry | **SUB-STRAND:** Area 1 | **WORKING MATHEMATICALLY:** MA2-1WM ; MA2-2WM ; MA2-3WM  |
| OUTCOMES: MA2-10MG  | Measures, records, compares and estimates areas using square centimetres and square metres |
| **CONTENT:**  | **Recognise and use formal units to measure and estimate the areas of [rectangles](http://syllabus.bos.nsw.edu.au/glossary/mat/rectangle/?ajax" \t "_blank" \o "Click for more information about 'rectangles')**\* recognise the need for a formal unit larger than the square centimetre to measure area\* construct a square metre and use it to measure the areas of large rectangles (including squares), eg the classroom floor or door\* explain where square metres are used for measuring in everyday situations, eg floor coverings (Communicating, Problem Solving) \* recognise areas that are 'less than a square metre', 'about the same as a square metre' and 'greater than a square metre' (Reasoning)  |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) |  |
| WARM UP / DRILL | * Review arrays
* Cover a playing card with an array. How many units are used?
* Review 10cm2 overlay
 |
| 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
 |
| RESOURCES |  |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |
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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| \* Using a taped metre rectangle on the floor, ask the children to cover using a cm2.overlay.How long will it take?\* Pose question: What if we use a bigger unit?\* Introduce a model m2 . Question is it bigger, greater than, less than ?\* Working in groups chn construct a m2 using newspaper and tape.\* Demonstrate measuring using the m2 eg. Table top | LEARNING SEQUENCERemediationS1 or Early S2 |  |
| LEARNING SEQUENCES2 | * Investigation:

Working in groups, chn measure item using the m2 . Chn record answers in a table form, using the unit XX newspaper squares.\* Explain that the newspaper square is a m X m, therefore it is called a square metre and is recorded as m2\* Students change recordings to new unit.\* Sales catalogue search to demonstrate that some things are sold in square m. List responses. |
| LEARNING SEQUENCEExtension Late S2 or Early S3 |  |
| **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.