**MATHEMATICS STAGE 3**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 6 | STRAND: Measurement & Geometry | **SUB-STRAND:** **Time 2** | **WORKING MATHEMATICALLY: MA3-1WM** |
| OUTCOMES: MA3-13MG | **Uses 24-hour time and am and pm notation in real-life situations, and constructs timelines** |
| **CONTENT:**  | **Interpret and use timetables (ACMMG139)*** Interpret timetable information to solve unfamiliar problems using a variety of problem solving strategies.
 |
| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) |  |
| WARM UP / DRILL | * Order specified events from fastest to slowest, and vice versa, based on actual time.
 |
| 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**

|  |  |
| --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| * Provide opportunities for students to access TV programs etc
* Ask students to volunteer their favourite TV programs. Discuss that, as individuals, it’s OK to have a different favourite list than somebody else.
* Model the concept of recording appropriate information such as starting time, finishing time and duration.
* Students discuss the use of 24 hour time and why it is important.
* Students should be able to communicate using the following language:- timetable, timeline, scale, 12-hour time,
* 24-hour time, hour, minute, second, am notation, pm notation.
 | LEARNING SEQUENCERemediationS2 or Early S3 | * Read and interpret simple timetables, timelines and calendars.
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| LEARNING SEQUENCES3 | * Investigation: Students are presented with a scenario that they have 240 minutes to record their favourite shows. The students then prepare their plan for recording, by listing the show, the start time, finish time and duration.
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| LEARNING SEQUENCEExtension Early S4 | * Interpret calculator displays for time calculations, eg 2.25 on a calculator display for a time calculation means http://syllabus.bos.nsw.edu.au/js/_libs/mathjax/fonts/HTML-CSS/TeX/png/Main/Regular/120/0032.pnghttp://syllabus.bos.nsw.edu.au/js/_libs/mathjax/fonts/HTML-CSS/TeX/png/Main/Regular/085/0031.pnghttp://syllabus.bos.nsw.edu.au/js/_libs/mathjax/fonts/HTML-CSS/TeX/png/Main/Regular/085/0034.png hours or 2 hours 15 minutes
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| **EVALUATION & REFLECTION** |  |

* 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.