**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 7 | STRAND: Measurement and Geometry | **SUB-STRAND:** **Time 2** | **WORKING MATHEMATICALLY:** **MA1-1WM, MA1-2WM, MA1-3WM** |
| OUTCOMES: MA1-13MG | **Describes, compares and orders durations of events, and reads half- and quarter-hour time** |
| **CONTENT:**  | **Describe duration using months, weeks, days and hours*** Use the terms ‘hour’, ‘minute’ and ‘second’.
* Experience and recognise activities that have a duration of one hour, half an hour or a quarter of and hour, one minute, and a few seconds.
* Indicate when it is thought that an activity has continued for one hour, one minute or one second (Reasoning)
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Make a class table showing the duration of different events e.g. Things that take a few seconds/ 1 minute/ about 15 minutes/ about 30 minutes and things that take one hour.
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| WARM UP / DRILL | * Event pictures – show students pictures of different events taking various durations e.g. brushing teeth/ playing soccer. Students need to call out the correct word for each picture e.g. seconds/ minutes/ hours.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | My favourite show runs for 1 hour and 20 minutes. My second favourite show runs for 59 minutes. Which show runs for the longest time, my favourite or second favourite? |
| 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 | Event pictures, stopwatches, word cards ‘seconds’, ‘minutes’ and ‘hours’, clock face worksheet, clock with a second hand and duration table worksheet, assessment pictures and table. |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Review and Teach – Using a stopwatch on the Interactive Whiteboard (IWB), estimate the number of times a student could do given challenges e.g. No. of star jumps, making a unifix cube tower, writing their name. Record results. *Try the same challenges with different students and compare the results.* Organise the results under the headings ‘seconds’, ‘minutes’ and ‘hours’. Discuss findings.* Using a clock face, count by 5 minute intervals.
* Divide the clock face into 15 minute intervals. Discuss.
* How many minutes in an hour? How many minutes in a quarter of an hour? How many minutes in half an hour?
* Show students a clock with a second hand and count 60 seconds together as the hand ticks around one rotation. How many seconds in a minute?
 | LEARNING SEQUENCERemediationES1  | * Compare the duration of two events using everyday language, e.g. ‘It takes me longer to eat my lunch than it does to clean my teeth’.
* In pairs, record the duration it takes to write their name once or twice.
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| LEARNING SEQUENCES1 | * In pairs students estimate, then measure the amount of seconds and/or minutes it takes to complete a given task e.g. write their name 5 times. Record results on a table.
* Divide a clock face into 15 minute intervals and shade different colours.
* In their workbook, students need to record one thing that takes a few seconds, one minute and one hour and justify their choices.
* **Investigation:** Survey 5 students to find out their favourite time fillers e.g. playing Noughts and Crosses. Use this information to create a poster called ’60 seconds of Fun’.
* **Assessment** – Students sort pictures under the headings ‘seconds’, ‘minutes’ and ‘hours’.
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| LEARNING SEQUENCEExtension Early S2 | * Using stopwatches, record the duration of several activities, e.g. writing their full name and address, recite their 5x tables, sing the National Anthem and then use this information to work out the duration in minutes and seconds.
* Convert the minutes to seconds e.g. 1min 15 secs = 75 seconds
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| **EVALUATION & REFLECTION** | * Can students recognise the difference between seconds, minutes and hours?
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* 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.