

## GRADE 4 MATHEMATICS PLANNER – Victorian Curriculum

<b>Unit:</b> Time	<b>Strand:</b> Measurement and Geometry	<b>Term 3</b> <b>Week 1</b> <b>2016</b>
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**Vocabulary:** am, analogue, days, digital, hours, measure, minutes, months, pm, seconds, time, weeks, years

**Resources:** Websites, teacher-made lesson content, worksheets

YEAR LEVEL INDICATORS	Content Descriptors & Standards:	Elaborations:
<b>Level 3</b>	<ul style="list-style-type: none"> <li>Tell time to <b>the minute</b> and <u>investigate</u> the relationship between <b>units of time</b> (VCMMG141)</li> <li>They tell time to the <b>nearest</b> minute.</li> </ul>	* Recognising there are 60 minutes in an hour and 60 seconds in a minute
<b>Level 4</b>	<ul style="list-style-type: none"> <li><b>Convert between</b> units of time (VCMMG167)</li> <li>They convert between units of time.</li> <li>Use <b>am and pm notation and solve simple time problems</b> (VCMMG168)</li> <li>They solve problems involving time <b>duration</b>.</li> </ul>	* Identifying and using the correct <u>operation</u> for converting units of time  * Calculating the time spent at school during a normal school day * Calculating the time required to travel between two locations * Determining arrival time given departure time
<b>Level 5</b>	<ul style="list-style-type: none"> <li>Compare <b>12 and 24 hour time systems and convert between them</b> (VCMMG197)</li> <li>They convert between 12 and 24 hour time.</li> </ul>	* Investigating the ways time was and is measured in different Aboriginal Country, such as using tidal change * Using units hours, minutes and seconds

**Pre - Assessment** Have students sketch an analogue clock, and show 7:45 ( a quarter to 8 ) on the clock.  
Have students write three time facts, e.g. 1 minute = 60 seconds.

	Lesson 1	Lesson 2	Lesson 3	Lesson 4
<b>Whole Class Introduction</b>	<p><b>Pre-test:</b></p> <ol style="list-style-type: none"> <li>Conduct above pre-test to determine groups</li> </ol> <p>Or</p> <ol style="list-style-type: none"> <li>Distribute Time Capacity Matrix <a href="http://effectivecurriculumideas.weebly.com/uploads/2/5/2/5/25254303/progressive_capacity_matrix_-_the_victorian_curriculum_-_mathematics_-_time_-_year_levels_identified.pdf">http://effectivecurriculumideas.weebly.com/uploads/2/5/2/5/25254303/progressive_capacity_matrix_-_the_victorian_curriculum_-_mathematics_-_time_-_year_levels_identified.pdf</a></li> </ol>	<p><b>Tuning in:</b></p> <p><a href="#">VCMMG167 - Time - Converting Between Units - Wow Intro - Seasons of Love (Video from the movie Rent)</a></p> <ul style="list-style-type: none"> <li>What is special about 525,600 minutes?</li> <li>What other ways did they measure a year in? (love, cups of coffee?)</li> <li>What other ways at school can we measure a year in (terms, weeks, days, months)</li> <li>Complete the chain: 1 year = days, weeks, months, terms)</li> </ul>	<p><b>Tuning in:</b></p> <p><a href="#">VCMMG141 &amp; 167 - Time - Relationship between Units of Time - Conversion - Millionaire - Lesson (Quiz).pptx</a></p>	<p><b>Tuning in:</b></p> <p>???</p>

**BELOW**

**1. Lesson:**

Review analogue

- Teacher uses classroom clock or interactive clock @ <http://www.amblesideprimary.com/ambleweb/mentalmaths/clock.html>
- Students use their own analogue clocks with hands – (i) students labels all 59 minutes they label every fifth minute with a black marker

<http://www.learnalberta.ca/content/me5l/html/math5.html?goLesson=15> –

Sections 1-3

- 1 minute increments
- Quicker: 5 minute increments
- Inros AM PM

**2. Activities:**

- [VCMMG141 - Time - Analogue Clocks - Time to the nearest 5 minutes - Activity.pdf](#)

**3. Fast Finishers:**

- Reading analogue watches: Refresher course <http://studyjams.scholastic.com/studyjams/jams/math/measurement/tell-time.htm>
- Home
- Watch Out
- Try

**AT**

**1. Lesson**

12-24 hours time

- <http://www.learnalberta.ca/content/me5l/html/math5.html?goLesson=15> – Section 4
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**2. Activities**

- Create an AM/PM hour time line in one column

AM/PM	Activity
1am	Sleeping
2am	Sleeping
3am	Sleeping
11am	Recess
12pm	Maths
1pm	Lunchtime

**3. Fast Finishers**

- 12 Hour To The Minute: Time Match (Nelson 4 TB pg. 118)
- 12-24 hours interactive activity <http://www.turtlediary.com/kindeergarten-games/math-games/tick-tock-time.html>

**ABOVE**

**1. Lesson**

- [VCMMG197 - Time - 24 Hour Time - Using a Time Line to Solve Time Problems - Lesson.pptx](#)

**2. Activities**

- Complete 24-Hour Time (Nelson 5 SB pg. 102)
- Ordering Times (Nelson 5 TB pg. 118)

**ABOVE****Activities (Completing the pattern)**

1. Create 1 24 hour time line in one column

AM/PM	24H	Activity
1am	01:00	Sleeping
2am	02:00	Sleeping
3am	03:00	Sleeping
11am	11:00	Recess
12pm	12:00	Maths
1pm	13:00	Lunchtime

## Lesson:

1. VCMMG197 - Time - 12 and 24 Hour Time - Intro To - Lesson.pptx

## Activities

2. [VCMMG197 - Time - 12 and 24 Hour Time - Convert Written Time - Activity.docx](#)
3. Complete 12-Hour Time (Nelson 5 SB pg. 101)
4. [VCMMG197 - Time - 12 and 24 Hour Time - Convert Between Analogue & Digital - Activity.pptx](#)

**BELOW**

Group plays What's The Time, Mr Wolf? With their clocks for 5 mins

Time – Investigating – Work in pairs to (and seek assistance from peers when needed to)

- Order days of the week
- Order months of the year
- Order time periods (millisecond, second, hour, day, week, fortnight, month, year, decade, century, millennium)

## Extension:

## Time Conversions

- ? secs = 1 min
- ? mins = 1 hour
- ? hours = 1 day
- ? days = 1 week
- ? weeks = 1 fortnight
- ? weeks = 1 year
- ?days = 1 year
- Any more?

## Fast finishers:

- Check answers using [VCMMG141 - Time - Relationship between Units of Time - Lesson \(Review\).pptx](#)
- Place classroom posters around the classroom from [VCMMG141 - Time - Relationship between Units of Time - Time Conversion Posters.pptx](#)

**AT**

In pairs:

## 1. Time to life

- I brush my teeth for ?
- I spend ? hours at school (prove)
- Etc..
- 5 sentences using different time units

Individually:

## 2. Time Conversions

- ? secs = 1 min
- ? mins = 1 hour
- ? hours = 1 day
- ? days = 1 week
- ? weeks = 1 fortnight
- ? weeks = 1 year
- ?days = 1 year
- Any more?

And reverse order

- ? mins = 60 secs
- ? hours = 60 mins
- ? days = 24 hours
- ?weeks = 7 days
- ? fortnights = 2 weeks
- ? years = 52 weeks
- ? years = 365 days
- Any more?

## 3. Complete Converting Between Units Of Time (Nelson 4 SB pg. 101)

EXTENSION:

4. Complete Am and Pm Time (Nelson 4 SB pg. 102)

Computer Activity		<p><b>AT</b>  <b>Assessment (Gauge current understanding)</b>  <b>Paper</b>  1- Duration – Add 1 hour or 30 mins</p> <ul style="list-style-type: none"> <li>• <a href="#">VCMMG167 - Time - Solving Simple Problems - Duration - Strategies - Adding 1 hour or 30 mins (Easy) - Lesson 1.pptx</a> on paper )give work to teacher)</li> </ul> <p><b>Computer</b></p> <ol style="list-style-type: none"> <li>1. Convert between Units Of Time <ul style="list-style-type: none"> <li>• Convert between Units Of Time Studyladder (All three activities)</li> <li>• Use am or pm (2 x activities) Studyladder</li> </ul> </li> <li>2. Duration problems (ask teacher first) <ul style="list-style-type: none"> <li>• <a href="#">VCMMG167 - Time - Solving Simple Problems - Duration - Strategies - Using a Number Line - Lesson.pptx</a> – Lesson with book for work</li> <li>• Online activity <a href="http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks2/maths/timetables/index.htm">http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks2/maths/timetables/index.htm</a></li> </ul> </li> </ol>	<p><b>ABOVE</b>  <b>ASSESSMENT:</b></p> <ol style="list-style-type: none"> <li>1. 24 Hour Time (First four activities) - Studyladder – Grade 5</li> </ol> <p><b>Fast Finishers:</b></p> <ul style="list-style-type: none"> <li>• Put up classroom posters on 24hour times: <a href="#">VCMMG197 - Time - 24 Hour Time - Analogue &amp; Digital Time - Classroom Posters.pdf</a></li> </ul>	<p><b>BELOW</b>  Self-paced lesson (in pairs) writing answers in books</p> <ul style="list-style-type: none"> <li>• <a href="#">VCMMG141 - Time - Digital Clocks - Reading &amp; Writing Time to the Minute - Lesson.pptx</a></li> </ul> <p>Next Unit Assessment: (Gauge readiness for next step)</p> <ul style="list-style-type: none"> <li>• Studyladder – Grade 4</li> </ul> <ol style="list-style-type: none"> <li>1. Convert between Units Of Time (All three activities)</li> </ol>
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