

TE PAEPAE O AOTEA MATHS BADGE: TIME

SECTION A		SECTION B	
Select and complete three out of the five in Section A		Select and complete three out of the six in Section B	
1	Use the telephone book to calculate different time zones and how they affect the timing of international calls. Remember to consider daylight saving, personal events and the dateline. Produce a useful timetable for your family to use.	1	Produce a diary of your school week from 0800 to 1530 each day, showing how you spend your time (in 15 minute intervals). Examine and analyse how you spent your time and record your findings using a data table.
2	Find out how an analogue clock measures time. Write an explanation illustrated with diagrams. Produce a series of diagrams that would help a younger child tell the time clearly and easily.	2	Design 10 different clock faces using different symbols for each one, but still using analogue markings. Consider using Roman numerals, patterns of dots, Braille, codes, etc.
3	Invent a device for measuring time. Write an explanation of how it works. Is it accurate? Why? Why not? Justify your answer.	3	How does Daylight Saving work? What effects does it have on different groups of people (eg. farmers, sports people, office workers, school children), as well as your own life. How does it affect time world wide? Analyse your findings and draw conclusions about the use of Daylight Saving.
4	What day were you born? Prepare a calendar showing the day and month of your birth. What day of the week will your birthday be in 20 years time? Write an explanation to justify your answer.	4	Design and produce a chart comparing the relationship between digital, analogue and 24 hour time. Research the use of each method in everyday life and explain why it is used. Select 15 specific samples of time and illustrate how to convert one type of measurement to another.
5	Investigate and describe how different cultures have measured and recorded time. Produce a chart outlining your findings.	5	Research, analyse and record the phases of the moon. Find out how long it takes for the moon to progress from a new moon to a full moon and back again. Produce a moon calendar to demonstrate these concepts.
		6	Evaluate the effectiveness of a sundial, hour glass, water clock, candle clock, analogue clock and digital clock. Design a clock of your own and write about its effectiveness in measuring time.