# Time Zones

## Year 6 Maths

### Australian curriculum Learning objectives

* [ACMMG137](http://www.australiancurriculum.edu.au/Elements/ACMMG137):[[1]](#footnote-1) Solve problems involving the comparison of lengths and areas using appropriate units.

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* [ACSIS110](http://www.australiancurriculum.edu.au/Elements/ACSIS110):[[2]](#footnote-2) Communicate ideas, explanations and processes in a variety of ways, including [multi-modal texts](http://www.australiancurriculum.edu.au/Glossary?a=S&t=multi-modal+texts).[[3]](#footnote-3)

### Resources required

* [*Time zones and how they work*](http://www.universalsubtitles.org/en/videos/ctadZP0hF3Gc/info/nasa-ksnn-time-zones/)*[[4]](#footnote-4)* and [*How the International Date Line Works*](http://www.youtube.com/watch?v=hPpWCTHjzQI&feature=related)*[[5]](#footnote-5) captioned* online videos. (Durations: 1 and 2 minutes respectively.)
* Globe, world map, Australia map images for interactive whiteboard (IWB).
* [Labelling arrows](http://www.capthat.com.au/sites/www.capthat.com.au/files/Time%20zone%2C%20worksheet.docx) & A3 or larger world map
* Atlas

#### Lesson outline:

1. Teacher explains that at any one time our clocks will show different times in different places around the world. This is related directly to the Earth’s revolution on its axis - some parts of the Earth are in darkness, others in light.
2. Teacher plays the *Time zones and how they work* video on IWB. NB: video cannot be played with captions on Full Screen mode or on mobile devices.
3. Teacher uses large globe image on IWB to highlight lines of longitude which are displayed on the globe. Teacher explains that each longitudinal line (15 degrees) is equal to one hour and every 15 degrees of difference between countries and cities is equal to an hour in time difference, starting from Greenwich at 0 degrees.
4. Teacher explains to students that physically large countries such as Australia often have multiple time zones. Use examples (Perth and Sydney) and work through introductory questions with class.
5. Students are given a world map and are asked to use labels and captions to explain aspects on the map which affect/create time zones. E.g. 15 degree labels, latitudinal lines, time zones, Greenwich 0 degrees.
6. Teacher asks individuals to volunteer to help label aspects of the demonstration map.

### Homework/extension

Students explain how time zone differences have affected them or their families.

### Opportunity for further activity

Students colour and label a large scale world map highlighting the 24 zones of the globe; labelling hour and degrees for each.

Students may wish to watch *How the International Date Line Works* on Youtube.

1. http://www.australiancurriculum.edu.au/Elements/ACMMG137 [↑](#footnote-ref-1)
2. http://www.australiancurriculum.edu.au/Elements/ACSIS110 [↑](#footnote-ref-2)
3. http://www.australiancurriculum.edu.au/Glossary?a=S&t=multi-modal+texts [↑](#footnote-ref-3)
4. www.universalsubtitles.org/en/videos/ctadZP0hF3Gc/info/nasa-ksnn-time-zones/ [↑](#footnote-ref-4)
5. http://www.youtube.com/watch?v=hPpWCTHjzQI&feature=related [↑](#footnote-ref-5)