

## Purpose:

Are there differences in the time of day depending on where you are? Could it be 12 o'clock midnight in one country and 12 o'clock at noon in another area of the world at the same time? How do we figure out what time it is in all of these different countries? Why do we have these different time zones? Why is this important for me know as I plan a trip to Australia?

## Social Studies Theme:

Location, Place, Region, Time Zones, International Date Line, GIS Google Earth-World Travel.

## Expectations:

By the end of Grade 6, students will:

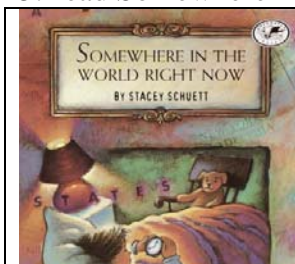
- explore latitude and longitude coordinates to locate some major cities and countries of the world
- use information about time zones to identify time differences among regions of the world; have a greater understanding of time zones.

## Materials:

Smart Ideas graphic organizer,  
Internet (research, Google Earth).

## Procedures:

1. Have students discuss and share with the class what they know about time zones and what they would like to know about time zones. Use Smart Ideas graphic organizer to record their prior knowledge.
2. Display differences in time zones, use several clocks to show different hours at different places. For example, **clock A** can show 8 a.m. in Hawaii, **Clock B** can show 11 a.m. in Los Angles, **Clock C** can show 7 p.m. in London, etc.)
3. Bring in travel guides and have students plan a trip to three different countries from London Ontario. Take the students to the computer lab and search for these places using the search tool in Google earth-they must use placemarks and include the time zones (using website link provided).
4. As a class explore teacher's travel – demonstrated Teacher's "Trip of a Life Time"- created in Google Earth. Have children explain what it would be like to cross the dateline?
5. Read Somewhere in the World Right Now and discuss these general facts....



### General Facts Below

- |   |   |  |
|---|---|--|
| • it takes one day; 24 hours for the Earth to rotate once | • the position of the sun and Earth creates our days and nights | • 1884 the Earth was divided into 24 equal regions which are called time zones |
|---|---|--|

<ul style="list-style-type: none"> <li>international agreement made between people from all over the world</li> </ul>	<ul style="list-style-type: none"> <li>time zones boundaries are based on geographical and political area</li> </ul>	<ul style="list-style-type: none"> <li>international date line is where the date changes</li> </ul>	<ul style="list-style-type: none"> <li>international date line goes through the Pacific Ocean at approximately 180 degrees latitude</li> </ul>
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6. With the students, figure out what time it is in those countries. (Italy is 9 hours ahead of Hawaii, the Philippines is 18 hours ahead of Hawaii. Teachers may want to focus on the capital of each Canadian Province and because of the counties size they have many time zones from East to West.

## Internet Resources

### Map, Globe, and Graphic Skills\*

A list the main Time Zones in the world <a href="http://www.timeanddate.com/worldclock/">http://www.timeanddate.com/worldclock/</a>	Time Zone Converter <a href="http://www.timezoneconverter.com/cgi-bin/tzc.tzc">http://www.timezoneconverter.com/cgi-bin/tzc.tzc</a>
World Sunlight Map- <b>satellite images</b> <a href="http://www.die.net/earth/hemisphere.html">http://www.die.net/earth/hemisphere.html</a>	What is my Time Zone? <a href="http://www.timezoneconverter.com/">http://www.timezoneconverter.com/</a>
The Living Earth <a href="http://www.fourmilab.ch/cgi-bin/uncgi/Earth/action?opt=-p">http://www.fourmilab.ch/cgi-bin/uncgi/Earth/action?opt=-p</a>	World Time Zones <a href="http://www.worldtimezone.com/">http://www.worldtimezone.com/</a>
Time Zone Measurement-Teacher Resources <a href="http://argyll.epsb.ca/jreed/math7/strand3/3103.htm">http://argyll.epsb.ca/jreed/math7/strand3/3103.htm</a>	World Atlas-Explanation of International Time Zones <a href="http://www.worldatlas.com/aatlas/infopage/dateline.htm">http://www.worldatlas.com/aatlas/infopage/dateline.htm</a>
Wikipedia Time Zones <a href="http://en.wikipedia.org/wiki/Time_zone">http://en.wikipedia.org/wiki/Time_zone</a>	About time Zones-History <a href="http://geography.about.com/od/physicalgeography/a/timezones.htm">http://geography.about.com/od/physicalgeography/a/timezones.htm</a>

## Assessment:

1. Check to see if students were able to read the time zone maps.
2. Check how well students were able to discuss and create generalizations about time zones when given a situation. Were students able to figure out the time/day of specific countries/cities?
3. Were the students' illustrations and writings accurate? How well did they depict the countries?
4. Students present their Google Earth placemarks with sufficient accuracy when explaining the time zones on their travels.