Geography Skills Worksheet: Using Time Zone Maps

Time differs around the world. Since the sun is not directly overhead everywhere on Earth at the same time, clocks are adjusted to reflect the difference in the sun’s position. The earth is divided into 24 time zones. Thus, one hour of time is subtracted for each 15 degrees as you move westward. One hour of time is added for each 15 degrees as you move eastward.

By international agreement, longitude is measured from the Prime Meridian, which passes through the Royal Observatory in Greenwich, England. Time is also measured from Greenwich and is called Greenwich Mean Time (GMT). For each time zone east of the Prime Meridian, clocks must be set one hour ahead. For each time zone west of Greenwich, clocks are set back one hour.

The International Date Line is located at 180 degrees on the time-zone map. There is a difference of 24 hours between the two sides of the International Date Line. As you cross the line from the west to the east, you gain a day. If you travel from east to west, you lose a day.

This worksheet may be used with the Ball State University Libraries’ Digital Media Repository World Standard Time Zone Maps collection:
http://libx.bsu.edu/cdm/landingpage/collection/WrldStdTZMps

Questions using Standard Time Zone Map, 2008:

1. What is the longitude of the Prime Meridian?
2. How many time zones are in the United States, excluding Alaska and Hawaii?
3. How many time zones are in China?
4. How many time zones are in Mexico?
5. How many time zones are in Brazil?
6. If it is 10:00 A.M. in New York, New York on Thursday, what time and day is it in Sydney, Australia?
7. If it is 10:00 A.M. in Los Angeles, California, what time is it in London, England?
8. If it is 10:00 A.M. in Washington, D.C., what time is it in Lima, Peru?
9. If it is 10:00 A.M. in Cairo, Egypt, what time is it in Astana, Kazakhstan?
10. If it is 10:00 A.M. in Moscow, Russia, what time is it in Algiers, Algeria?