

the world from pole to pole through the Pacific Ocean. If a traveler crosses the line headed from Asia to America, she sets the clock back 24 hours; likewise, a traveler crossing the line headed from America to Asia will set the clock ahead 24 hours.

Before the adoption of time zones, people used local **solar time**, based on the position of the sun in the sky as the day progresses. As railways and communications connected people in different regions during the 19th century, differences in local times became problematic. Governments in many countries synchronized the clocks in all localities, so that travellers could more easily adjust to time changes, and so that communications could be standardized. Time zones still allow local time to approximate the mean solar time. For example, four time zones were created in the United States in 1883 – Pacific Standard Time, Mountain Standard Time, Central Standard Time, and Eastern Standard Time – with Pacific Standard Time set three hours earlier than Eastern Standard Time.

INTERPRETATION OF PLACES AND PATTERNS

To geographers, the seemingly simple term “**place**” is deceptively complex. Briefly defined, place is the unique location of a geographic feature. As a result, each point, or place, on earth is different from all others. Its uniqueness may be identified in four ways: place name, site, situation, and absolute location.

- **Place name** – Most places on earth have names or **toponyms** – that distinguish them from others. Some names reflect history. For example, many places in the eastern United States have the word “new” as part of their name. Settlers that came from “England,” or “York,” or “Jersey” named their new homes “New England,” or “New York,” or “New Jersey,” reflecting the historical migration of people from Britain to North America in the 17th and 18th centuries. Other names are simply – often hopefully – descriptive, like “Springfield,” or “Pleasantville,” or “Three Rivers.” Still others invite a map reader to find out the story behind the name, like “Medicine Hat” or “Yellow Knife.” The point is that humans name places to distinguish them from other places, an action that helps to define the uniqueness of each place.
- **Site** – Location may also be defined by site – the physical and human-transformed characteristics of a place. **Physical site characteristics** include climate, topography, soil, water sources, vegetation, and elevation. Site features have usually been important for people in choosing a place to live. Many of the earliest civilizations were centered on rivers, not only for water sources but also for transportation purposes. Rich soil is important for farmers, and hilltops are good choices for people looking for defense from enemy attack. An important site characteristic for Britain is that it is an island off the larger land mass of Europe – a fact that has affected the British people throughout their history. Being an island was quite helpful when Napoleon and Hitler were on the march, since this site characteristic probably saved the British from invasion in both cases. Additionally, being an island has limited Britain’s natural resources for growth, a site characteristic that has encouraged British political leaders to take to the seas to find those resources. Humans may transform sites to suit their needs so that the sites are part of the human mosaic, not the physical site itself. Examples are airports, street patterns, public parks, and sports facilities.
- **Situation** – This characteristic refers to relative location. As mentioned earlier, relative location is important in determining the centrality or isolation of a place, a fact that is

highly subject to change. Additionally, situation helps us to find an unfamiliar place by comparing its location to a place that we know. If you are giving directions to a person that does not know a place location, you usually start with what he or she does know. For example, you may start with the main street in town to begin giving directions to a smaller street.

- **Absolute location** – A place may be located by mathematically calculating its location using latitude and longitude. Because meridians and parallels allow us to be very precise, absolute location is unique for every place on earth.

Another important type of spatial data is **pattern**, or the arrangement of objects on earth’s surface in relation to other objects. Pattern refers to distribution, like the number of towns that appear along a river and how they are spaced. If the pattern is along straight lines, like rivers, streets, or railroad tracks, the arrangement is **linear**. If objects circle another object, they form a **centralized pattern**. For example, in an Islamic city, houses and public buildings may circle around the mosque, or house of worship. A **random pattern** exists if no regular distribution can be seen.

One type of geographic pattern – a checkerboard rural pattern – may be seen from a plane that is flying above much of the midsection of the United States. The lands are laid out in sections that are separated by types of crops or grazing that takes place, and roads often follow the grid. This **grid** or **rectilinear pattern** reflects a rectangular system of land survey adopted in much of the country under the Ordinance of 1785. Since the towns were laid out in much the same way, many streets form grids, sometimes labeled “1st,” “2nd,” “3rd” streets, and so on.

REGIONS AND REGIONALIZATION

Even though every place on earth has its own uniqueness, patterns among places lead us to generalize to areas around them. If similarities are apparent, we may conclude that spatial regularities exist within an area that geographers call a **region**. If we begin to compare regions for similarities and differences, then **regionalization** – the organization of earth’s surface into distinct areas that are viewed as different from other areas – takes place.

One way to think about regions is to categorize them into **formal**, **functional**, or **perceptual regions**.

- **Formal regions** – Sometimes called uniform regions, a formal region is an area that has striking similarities in terms of one or a few physical or cultural features. A good example is a formal political region created when a government draws imaginary lines (that may follow natural features like rivers) around an area, calling it a “state,” or a “province.” One state or province, then, becomes distinct from another. Formal regions may also be defined by cultural characteristics, such as language or religion. For example, in the Middle East, a geographer could regionalize by using political boundaries, and refer to “Iraq,” “Iran,” and “Saudi Arabia.” Another method of regionalizing in the area is to refer to all as “Muslim lands,” in contrast to other regions where other religions prevail. On a smaller scale, regionalization could be based on a division of the area between inhabitants who are “Sunni” or “Shiite” Muslims. If the regions are based on religion,