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EARTH SCIENCE – UNIT 3 – CHAPTER 6 NOTES

VIEWS OF EARTH

6.1 Landforms

1. Coastal Plains = large, flat, broad areas along the ocean's shore
also called lowlands (low elevation, near sea level)
EX: Atlantic Coastal Plain = formed from a buildup of ocean sediments on the ocean floor; became visible when the sea level dropped
EX: Gulf Coastal Plain = formed from a building of sediments caused by erosion and deposition from the Mississippi River; became visible when the sea level dropped
2. Interior Plains = a large, flat, broad region of the US from the Rocky Mountains to the Appalachian Mountains
also called high plains (high elevation, above sea level)
EX: Great Plains = formed from the erosion and deposition of sediments from streams over millions of years
3. Plateaus = flat, raised areas of land that rise steeply from nearby land
EX: Colorado Plateau = the land was uplifted by Earth's forces, and cut into by the Colorado River, located west of the Rocky Mountains, forming the GRAND CANYON
4. Mountains = a landform that rises high above the surrounding land
EX: folded mountains = forms when the Earth's crust is squeezed inward from the sides
EX: upwarped mountains = forms when the crust is pushed up by Earth's forces
EX: fault-block mountains = forms when one of the Earth's plates moves past another plate at a fault (crack in the Earth's surface)
EX: volcanic mountains = forms when a volcano erupts, depositing new layers of sediments in the shape of a cone

6.2 Viewpoints

1. latitude = horizontal lines; shows distance NORTH or SOUTH
2. equator = line of latitude at zero degrees north/south
3. longitude = vertical lines; shows distance EAST or WEST
4. prime meridian = line of longitude at zero degrees east/west
5. time zones = lines of longitude every 15 degrees; earlier in the west; later in the east
EX: NYC is 2:00 pm → California is 11:00 am

****DISCUSS JET LAG ON A TRIP FROM NEW JERSEY TO HAWAII****

6. international date line

	L		R	
WEST	Mon		Sun	EAST
	Tues		Mon	
	Wed		Tues	
	Thurs		Wed	
	Fri		Thurs	
	Sat		Fri	
	Sun		Sat	

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6.3 Types of Maps

****DISCUSS MERCATOR PROJECTION, CONIC MAP, AND ROBINSON MAP****

****STUDENTS GENERATE A LIST OF PROS AND CONS FOR EACH TYPE OF MAP****

6.3 Topographic Maps

1. topographic map = map that shows the elevation of Earth's surface
2. contour line = a line on a topographic map that connects points of equal elevation
3. contour interval = the difference in elevation between 2 contour lines
EX: contour interval is small → the land is very steep
EX: contour interval is large → the land is gently sloping
4. map scale = relationship between the distance on the map and the distance on Earth's surface ("real life")
EX: If 1 inch = 10 miles, then 2.5 inches = 25 miles

6.3 Rules for Topographic Maps:

1. Contour lines can never cross.
2. Water always flows downhill.
3. Hachure lines always indicate depressions.
4. Use the map scale to calculate distances.

6.3 Technology

1. SONAR (Sea Beam Technology) = a sound wave is sent down to the ocean floor; the depth of the ocean floor is determined based on how long the sound wave takes to return (trenches take more time, mid-ocean ridges take less time)
2. GPS = global positioning system = a set of 24 satellites that send/receive signals to determine a person's location; used for driving, map-making, and animal-tracking.