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| **concept** | **weight** |
| Weather is defined as the conditions of the atmosphere at a particular place and time. | **Peripheral** |
| Climate is defined as the average weather over decades in a particular region. | **Peripheral** |
| The water cycle is dependent upon the flow of energy from the Sun. | **Peripheral** |
| The Coriolis effect deflects atmospheric and oceanic currents, which affects regional climates. | Core |
| Because of differential heating from the Sun, climate is warmer at equatorial regions and cooler at higher latitudes. | Core |
| Ocean water heats and cools more slowly than land, causing temperate climates in regions near the ocean. | Core |
| The angle at which the sun strikes different latitudes on Earth causes unequal heating across the globe. | Core |
| Air pressure and temperature drop with elevation, causing changes in climate. | Core |
| The cycling of matter and energy between living things and the atmosphere affects climate. | Core |
| The flow of air as wind on Earth is related to heating from the Sun. | **Peripheral** |
| When warm water evaporates from the ocean, it can condense to form storm clouds or intense tropical storm systems, such as hurricanes and tsunamis. | **Peripheral** |
| Weather characteristics include: temperature, air pressure, humidity, precipitation, wind speed and direction. | **Peripheral** |
| Atmospheric composition, including the amount of pollutants or greenhouse gases in the air, affects climate. | **Peripheral** |
| The interactions affecting weather and climate vary with latitude, altitude, proximity to the ocean, topography, and surface characteristics. | Core |
| Ocean currents transfer thermal energy between the equator and polar regions of the globe. | **Peripheral** |
| Gravity pulls denser air masses downwards, causing less dense air masses to rise. | Peripheral |
| Dense air masses are cool and dry, while less dense air masses are warm and humid. | Peripheral |
| Earth's hydrosphere includes all of the water existing in the atmosphere, bodies of water, and ground. | Peripheral |
| Albedo is the measure of how much light a surface reflects, which affects the climate in different regions. | Peripheral |