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| **GLCE** | Knowledge |  | Know-how | Wisdom |  |  | Teacher Initials |
| Demonstrate using a model or drawing, the relationship between the warming by the sun of the Earth and the water cycle as it applies to the atmosphere (evaporation, water vapor, warm air rising, cooling, condensation, clouds). |  |  |  |  |  |  |  |
| Describe the relationship between the warming of the atmosphere of the Earth by the sun and convection within the atmosphere and oceans. |  |  |  |  |  |  |  |
| Describe how the warming of the Earth by the sun produces winds and ocean currents. |  |  |  |  |  |  |  |
| Explain how human activities (surface mining, deforestation, overpopulation, construction and urban development, farming, dams, landfills, and restoring natural areas) change the surface of the Earth and affect the survival of organisms. |  |  |  |  |  |  |  |
| Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere, (car exhaust, industrial emissions, acid rain, and natural resources), and how pollution impacts habitats, climatic change, threatens or endangers species. |  |  |  |  |  |  |  |
| Compare and contrast the difference and relationship between climate and weather. |  |  |  |  |  |  |  |
| Describe how different weather occurs due to the constant motion of the atmosphere from the energy of the sun reaching the surface of the Earth. |  |  |  |  |  |  |  |
| Explain how the temperature of the oceans affects the different climates on Earth because water in the oceans holds a large amount of heat. |  |  |  |  |  |  |  |
| Describe weather conditions associated with frontal boundaries (cold, warm, stationary, and occluded) and the movement of major air masses and the jet stream across North America using a weather map. |  |  |  |  |  |  |  |
| Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff and ground water occur within the cycle. |  |  |  |  |  |  |  |
| Analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater. |  |  |  |  |  |  |  |
| Describe the atmosphere as a mixture of gases. |  |  |  |  |  |  |  |
| Compare and contrast the atmosphere at different elevations. |  |  |  |  |  |  |  |