**HPS S2 Unit 8 Objective Work 2020 Name:**

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| **Objective:** | **Notes:** |
| 1. Describe & use evidence to explain how land, atmosphere, & oceans changed throughout Earth’s history.  KEY CONCEPTS: Cyanobacteria, Supercontinent, Differentiation, Outgassing, Meteoroid, Red bed |  |
| 2. Illustrate how the geosphere, hydrosphere, atmosphere, & biosphere interact on earth.  KEY CONCEPTS: Biogeochemical cycles |  |
| 3. Outline the properties of water which make it unique and important to life on Earth.  KEY CONCEPTS: Polarity, Heat capacity, Expansion upon freezing, Universal solvent |  |
| 4. Illustrate the movement of carbon, nitrogen, and water through earth’s spheres in terms of chemical and physical changes.  KEY TERMS: Reservoir, Mechanism, Evaporation, Transpiration, Condensation, Precipitation, Collection, Runoff, Percolation, Infiltration, Photosynthesis, Cellular Respiration, Nitrogen Fixation |  |
| 5. Describe natural causes/influences on global climate.  KEY CONCEPTS: Weather, Earth’s orbit, Axis tilt, Mountain ranges, Oceans, Differential heating (latitude), Greenhouse effect, Volcanism, Milankovitch cycles (eccentricity, tilt, precession) |  |
| 6. Investigate scientific evidence for atmospheric changes of specific greenhouse gases and evaluate the human impact on these processes.  KEY CONCEPTS: Climate change, Sequestration |  |
| 7. Evaluate how changes to the oceans (natural and artificial) affect Earth’s spheres.  KEY CONCEPTS: Acidity, Salinity, Temperature |  |
| 8. Compare and contrast the pros and cons of renewable and nonrenewable energy sources.  KEY CONCEPTS: Coal, Oil, Natural Gas, Nuclear, Wind, Solar, Geothermal, Hydro (Dam/Tidal), Biomass, Nuclear vs chemical energy |  |
| 9. Develop a plan for both individuals and communities to conserve energy resources.  KEY CONCEPTS: Carbon Footprint |  |