HPS Unit 2 Objective Work 2019

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| Objective: | Notes: | Resources: |
| 1. Describe motion both qualitatively and quantitatively with respect to distance/displacement, speed/velocity, and acceleration. KEY CONCEPTS: Scalar, Vector, Average, Instantaneous, Final, Initial, 1-Dimensional calcs, v=x/t, s=d/t, a=(vf-vi)/t |  |  |
| 2. Create and interpret position/time, velocity/time, and acceleration/time motion graphs of objects.KEY CONCEPTS: Meaning of slope  |  |  |
| 3. Apply Newton’s three laws of motion to solve real life problems.KEY CONCEPTS: Force, Inertia, Balanced, Unbalanced, F=ma, Terminal velocity, Force Diagrams |  |  |
| 4. Apply the Law of Conservation of Momentum in a real life scenario.KEY CONCEPTS: Momentum (p), Impulse, p=mv, Imp=Δp=mΔv=F\*t, pi = pf , m1v1i + m2v2i = m1v1f + m2v2f |  |  |
| 5. Use Newton’s Universal Law of Gravitation to mathematically describe the force relationship between two masses.KEY CONCEPTS: Mass, Weight, F=G\*m1m2/r2, Fg = mg, g=9.8 m/s2 | - |  |
| 6. Compare the theories of continental drift, sea-floor spreading and plate tectonics.KEY CONCEPTS: Alfred Wegener, Henry Hess, Mid-ocean ridge, Sonar |   |  |
| 7. Illustrate plate tectonics (types of plates, boundaries) by describing forces involved in driving plate movement and explain the implications to humans.KEY CONCEPTS: Convection, Core, Mantle, Continental and Oceanic crust (age/composition), Transform, Convergent, Divergent, Subduction, Volcanism, Earthquakes, Tsunamis |  |  |