

**Unit # - 4 – Paleontology and Vertebrate Physiology (3 weeks)**

<b>Standards Addressed</b>	<b>Student Learning Objectives For this Unit</b>	<b>Content Skills and Knowledge</b>	<b>Learning Activities and Instructional Strategies</b>
<p>NSES Standards:  Earth &amp; Space Science  Science as Inquiry  Science &amp; Technology  History and Nature of Science  Life Science</p> <p>PA STEE Standards:  3.2.7.A (sci. k)  3.2.7.B (app k)  3.3.7.D (nat sel)  3.3.10.D (evolu)  3.4.7.D (astronomy)  3.4.7.B (e ht trn)  3.1.7.B (models)  3.7.7.B (instr)</p> <p>1.2 read crit  1.4 writing  1.8 presentation</p>	<p>Students will be able to...</p> <ul style="list-style-type: none"> <li>▪ Describe the developmental trends in vertebrates</li> <li>▪ Explain the current work in the field of hominid development</li> </ul>	<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>▪ The progression of vertebrate development through nervous, digestive, circulatory, and respiratory systems.</li> <li>▪ Hominid skull features: <ul style="list-style-type: none"> <li>○ Sagittal crest</li> <li>○ Prognathism</li> <li>○ Facial slope</li> <li>○ Supraorbital ridge</li> <li>○ Dental arcade</li> <li>○ Canines</li> <li>○ Molar width</li> <li>○ Cranium size</li> </ul> </li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>▪ Become familiar with tools and techniques used in paleo-anthropological studies.</li> <li>▪ Analyze morphological features</li> <li>▪ Collect data directly from skulls</li> <li>▪ Use data to infer developmental relationships between fossil and living specimens.</li> </ul>	<p><b>Lab or Demonstration:</b>  Hominid Skull lab Investigation  Survival of the Chocolates (H)  Population Growth Versus Food Supply  Adaptation Behooves you</p> <p><b>Reading:</b>  Directed Readings (H)  Radioactive Decay and the Half-life Fractions</p> <p><b>Worksheet:</b>  Homind Lab Packet Worksheets</p> <p><b>Technology:</b>  <a href="http://www.becominghuman.org/">http://www.becominghuman.org/</a></p>