

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
PreAP Biology Unit 12 - Invertebrates	9	5 <sup>th</sup> Cycle	15 days
<b>TEKS/Student Expectations</b>		<b>Examples/Specifications:</b>	
<p>1A Students will demonstrate safe practices during field and laboratory investigation</p> <p>1B Students will make wise choices in the use and conservation of resources and the disposal or recycling of materials.</p> <p>2A Students will plan and implement investigative procedures</p> <p>2B Students will collect data and make measurements with precision;</p> <p>2C Students will organize, analyze, evaluate, make inferences, and predict trends from data;</p> <p>2D Students will communicate valid conclusions.</p> <p>3C Students will evaluate the impact of research on scientific thought, society, and the environment</p> <p>5A Students will compare cells from different parts of plants and animals including roots, stems, leaves, epithelia, muscles and bones to show specialization of structure and function</p> <p>5B Students will identify cell differentiation in the development of organisms</p> <p>5C Students will sequence the levels of organization in multi-cellular organisms to relate the parts to each other and to the whole</p> <p>6E Students will compare the processes of mitosis and meiosis and their significance to sexual and asexual reproduction</p> <p>7A Students will identify evidence of change in species using fossils, DNA sequences, anatomical similarities, physiological similarities, and embryology</p> <p>8A Students will collect and classify organisms at several taxonomic levels such as species, phylum, and kingdom using dichotomous keys</p> <p>8C Students will identify characteristics of kingdoms including monerans, protists, fungi, plants, and animals</p> <p>10A Students will interpret the functions of systems in organisms including circulatory, digestive, nervous, endocrine, reproductive, integumentary, skeletal, respiratory, muscular, excretory and immune</p> <p>11A Students will identify and describe the relationships between internal feedback mechanisms in the maintenance of homeostasis</p> <p>12C Students will compare variations, tolerances, and adaptations of plants and animals in different biomes</p>		<p>. Students will:</p> <ul style="list-style-type: none"> <li>-Gather data, graph data, interpret data, distinguish observations from inferences, using laboratory equipment properly.</li> <li>-Learn the general characteristics of animals</li> <li>-Study the evolutionary trends in animal development</li> <li>-Compare the feeding, respiration, circulation, excretion, response, movement, and reproduction of sponges, cnidarians, worms, mollusks, arthropods, echinoderms,</li> <li>-Perform laboratory dissections</li> <li>-Relate the importance of invertebrates to their environments, to humans, to society</li> <li>-Research Animal Phyla Survey Project</li> </ul>	

<b>Language of Instruction:</b>	<b>Instructional Resources/Textbook Correlations:</b>
<p>Invertebrate, vertebrate, feedback inhibition, blastula, protosome, deuterostome, anus, endoderm, mesoderm, ectoderm, radial symmetry, bilateral symmetry, cephalization, choanocyte, osculum, spicule, archaeocyte, internal fertilization, larva, gemmule, cnidocyte, nematocyst, polyp, medusa, gastrovascular cavity, nerve net, hydrostatic skeleton, external fertilation, acoelomate, coelom, pharynx, flame cell, ganglion, eyespot, hermaphrodite, fission, scolex, proglottid, testis, pseudocoelom, anus, septum, seta, crop, gizzard, closed circulatory system, gill, nephridium, clitellum, trochophore, foot, mantle, shell, visceral mass, radula, siphon, open circulatory system, exoskeleton, chitin, appendage, tracheal tube, spiracle, book lung, Malphigian tubule, molting, cephalothorax, thorax, abdomen, carapace, mandible, cheliped, swimmeret, chelicera, pedipalp, spinneret, incomplete metamorphosis, nymph, complete metamorphosis, pupa, pheromone, society, caste, endoskeleton, water vascular system, madreporite, tube foot, intracellular digestion, extracellular digestion,</p>	<p>Prentice-Hall Biology – Chapter 26 Sections 1-3, Chapter 27 Section 1-4, Chapter 28 Section 1-4, Chapter 29 Section 1-2</p> <p>Laboratory Investigations:</p> <p><i>Survey of Animal Phyla Project</i> <i>Earthworm, Clam, Starfish, Squid Dissections</i></p> <hr/> <p><b>Weblinks/Other Resources:</b></p> <p>TAKS Workbook <a href="http://www.unitedstreaming.com">www.unitedstreaming.com</a> Discovery Videos National Geographic Videos Planet Earth Videos</p>
<b>Evaluation/External Assessment/Local Assessment:</b>	<b>Best Instruction Timeline:</b>
<p>TAKS Workbook Key Terms and Reading Quiz Chapters 26-29 Survey of Animal Phyla Project Chapter Worksheets Survey of Animal Phyla Project Invertebrates Unit Test</p>	<p>3 days - Sponges and Cnidarians 4 days - Worms and Mollusks 4 days - Arthropods and Echinoderms 2 days - Comparing Invertebrates 2 days - Assessment</p>