## Life Science Activities for Grade 4 2014 Science P.L.U.S. Institute

Roper Mountain Science Center Greenville, South Carolina

#### Academic Course Description:

Hands-on, inquiry-based activities emphasizing science process skills will provide the vehicles for studying concepts that correlate to the South Carolina Science Academic Standards for 4th grade life science. Course topics are designed to enhance the elementary teacher's life science knowledge base and provide appropriate lessons for the 4th grade science classroom. Activities are aimed at developing an understanding of the characteristics and patterns of behavior that allow organisms to survive in their own distinct environments. Field studies extend the classroom into the South Carolina foothills and mountain habitats. Participants receive a significant quantity of science materials for performing the activities in their classrooms.

Topics	Activities or Assignments	Correlation to SC Science Academic Standards
Classification of plants and animals	- <u>AIMS Fourth Grade Life</u> <u>Science</u> "Assorted Sea Life" activity -Classify plastic animals -AIMS "The Animal Kingdom" and "The Plant Kingdom" rubber band books -AIMS "Animal Antics" activity - AIMS "Carl Linnaeus" rubber band book -United Streaming video: "The Classification of Living Things" -"Incredible Invertebrates" project using Model Magic® -"Endangered Vertebrate" persuasive writing and oral presentation (graded project) - <u>Science Court: Living Things</u> software	4.L.5A.1 Obtain and communicate information about the characteristics of plants and animals to develop models which classify plants as flowering or nonflowering and animals as vertebrates or invertebrates.
Plant structures and adaptations	- <u>Instructional Fair</u> : <u>Life Science</u> <u>4-8</u> "Where Are Your Roots?" activity	4. L.5B.2 Construct explanations for how structural adaptations (such as the types of roots,
	-IF: "What Is The Function of Stems?" activity -IF: "Looking at Leaves" activity	stems or leaves: color of flowers: or seed dispersal allows plants to survive and

#### **Outline of Course Content: Fourth Grade Life Science**

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	- <u>AIMS The Budding Botanist</u> "Seed Dispersal" activity.	reproduce.)		
Plant growth and development	-Construct plant growth journals - <u>AIMS The Budding Botanist</u> "Parts of a Seed" activity. - <u>AIMS The Budding Botanist</u> Plant Growth Investigation	4. L.5A.2 Develop and use models to compare the stages of growth and development of different seed plants.		
Animal adaptations	- <u>AIMS Concerning Critters:</u> <u>Adaptations and</u> <u>Interdependence</u> -"Fishing for Fins" activity -"Wonderful Webbed Feet" -"Critters Hide and Seek" -"Gone Fishing" -"Missing Moths" -"Table Manners"	4.L.5B.3 Construct explanations for how structural adaptations (such as methods for defense, locomotion, obtaining resources, or camouflage) allow animals to survive in their environment.		
Animal Life Cycles	- <u>AIMS Concerning Critters:</u> <u>Observations and Classifications</u> -"This is your Life Tadpole" -"Insect Metamorphosis" -"Mealworms on Stage" "A Cricket's life"	4.L.5A.3 Develop and use models to compare the stages of growth and development in various animals		
Animal investigations	<u>AIMS Concerning Critters:</u> <u>Observations and Classification</u> -"Analyzing Attribution" -"Tracking Down the Family" -"Breathing Behaviors" -"Wondering About Worms" -"Wondering About Worms" -"Migration and Hibernation" <u>Classroom Critters and the</u> <u>Scientific Method</u> -"Do Goldfish Like to Hide?" -"Are Mice Wall-Seekers?" -"How Do Dwarf African Frogs Respond to Noise?" -"Do Millipedes Respond to	<ul> <li>4.L.5A.1 Obtain and communicate information about the characteristics of plants and animals to develop models which classify plants as flowering or nonflowering and animals as vertebrates or invertebrates.</li> <li>4.L.5B.3 Construct explanations for how structural adaptations (such as methods for defense, locomotion, obtaining resources, or camouflage) allow animals to survive in their environment.</li> </ul>		

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	Smell?"	4.L.5B.1 Construct scientific
	-"Do Crickets Prefer One-Door	arguments to support claims
	or Two-Door Houses?"	that some characteristics of
		organisms are inherited from
		parents and some are
		influenced by the environment.
Biomes	AIMS Fourth Grade Life Science	4-2.2 Explain how the
	-"Biome Boxes"	characteristics of distinct
	-Online biome research and	environments (including
	graphic organizer	swamps, rivers and streams,
	-Create a biome board game	tropical rain forests, deserts,
	using an electronic template	and the polar regions) influence
		the variety of organisms in
		each.