

# Project WILD

Addressing Life Science Access Points

# 2009-2010



Special thanks to the following individuals for their assistance.

Kristy Hoot  
Resource Teacher for InD Populations  
Palm Beach County School District

Regina Brodsky  
Exceptional Student Education Teacher  
Royal Palm School, Palm Beach County

Gayle Zavala  
Response to Intervention Teacher  
Gove Elementary, Palm Beach County

Brenda Tanfield  
FDLRS Technology Secretary

Lori Haynes  
Project WILD K-12 Education Coordinator

Project WILD began as a collaboration between the Dept. of Fish and Wildlife Project WILD K-12 Coordinator, and Palm Beach County Dept. of Exceptional Student Education. The program was developed to provide interactive and engaging environmental science education to children with pervasive disabilities. This handbook includes teaching suggestions, technology activities, craft and cooking ideas, and indoor/outdoor games to correlate with Life Science Access Points.

**Linda Laverty**  
**Florida Diagnostic Learning Resource System**  
**Dept. of Exceptional Student Education**  
**Palm Beach County, FL**



# Classification

## Project WILD Access Points

Independent	Supported	Participatory
-------------	-----------	---------------

### Classification

SC.K.L.14.Su.b

Distinguish a real animal and an animal that is not a living thing, such as a toy animal.

#### Teaching Strategies

Ask students to name things in their homes that are living. Make a list of these things on easel paper or white board. Ask students to look around the room and name the things that are living and things that are non living. Write these on the white board. Show students photographs of some living and nonliving things, and discuss the characteristics of living/nonliving things.

<b>Technology</b>	<b>Craft</b>	<b>Cooking</b>	<b>Outdoor/Indoor Activity</b>
Video Classification of Living Things Classroom Suite Activity It's Alive	Make a Mobile of live animals /toy animals (see template) Look through magazines or newspapers for items to paste on tagboard.	Use plastic models of fruit and actual fruit. Have students identify the fruit that is not real. Make a fruit cup with actual fruit.	Go outside and have students identify living organisms (plants/animals) and non-living items.

SC.1.L.14.In.c

Identify characteristics of living and nonliving things, including whether they need food or water.

#### Teaching Strategies

If available, introduce topic by reading *What is A Living Thing* by Bobbie Kaman. Use the video "Classification of Living Things" and Classroom Suite Activity "It's Alive." Make a graph, starting with the title All Things, then separate into Living/non living. Ask students to name living and non-living things around their homes and in the classroom. Determine what items on the list need food and water.

<b>Technology</b>	<b>Craft</b>	<b>Cooking</b>	<b>Outdoor/Indoor Activity</b>
Video Classification of Living Things Classroom Suite Activity	Look for pictures of living/non living things to make a mobile of living/non living things.	Make Stone Soup of non-living things. Ask students if it is edible. Make real soup using	Go on a scavenger hunt in the school yard to list living/non living things.

Linda Laverty  
Instructional Tech Specialist  
FDLRS Alpha/Dept of Exceptional Student Education  
Palm Beach Co. FL

It's Alive		broth and vegetables.	Make a graph of what students find. Use a digital camera and insert pictures into either Classroom Suite or PowerPoint.
------------	--	-----------------------	---

SC.1.L.14.Su.c

Distinguish common living and nonliving things in the environment.

**Teaching Strategies**

If available, read students the story *Each Living Thing*. Included in your packet is a list of suggested books. See if any are appropriate for your students. Show students examples of living/non living things. Use the It's Alive Classroom Suite Activity to introduce the topic. Tell students that are going to have a pet rock. Ask them what pets they have at home Make a diagram of student responses. Ask students to describe their pets' behaviors.

<b>Technology</b> Classroom Suite activity It's Alive FAA Classroom Suite Activity Is It Alive	<b>Craft</b> Decorate a pet rock	<b>Cooking</b> Make Stone Soup of non-living things. Ask students if it is edible. Make real soup using broth and vegetables the students choose.	<b>Outdoor/Indoor Activity</b> Scavenger hunt to search for a pet rock.
---	-------------------------------------	--	--

SC.3.L.15.Su.a

Sort common animals by observable characteristics.

**Teaching Strategies**

Use LCD or Teacher station to show Classroom Suite activity "Find the Same." Copy/paste pictures of the same kinds of animals. Project onto a large surface. Ask students to find the animals that are the same by touching the images. Write down the characteristics that make the organisms the same.

<b>Technology</b> Classroom Suite Activity "Find the Same." FAA format "Find the Same"	<b>Craft</b> Find multiple images of familiar animals. Cut/Paste one animal per page on 5x7 or 8x10 paper. Laminate to use	<b>Cooking</b> Make jello jiggles and use cookie cutters to make several of pairs of animals. Students select the animals that are the	<b>Outdoor/Indoor Activity</b> If you have a parachute available, and enough stuffed animals or beanie babies, play a
---	--	---	--

Linda Laverty  
Instructional Tech Specialist  
FDLRS Alpha/Dept of Exceptional Student Education  
Palm Beach Co. FL

	with floor board game	same for a snack.	parachute game in which you call, "All mammals in." after several minutes, say, "All mammals out." Repeat for all classification of animals. If a parachute and stuffed animals are not available, make a large game board on the floor using masking tape. Use the cutout pictures students have made from <b>Craft</b> activity. Use large dice if available or spinner. Each student rolls the die. Teacher has laminated pictures. Student must find matching animal to move on the board game.
--	-----------------------	-------------------	---

SC.3.L.15.Pa.a

Match animals that are the same.

**Teaching Strategies**

Show pictures of familiar animals to students. Show the same animals using plastic or stuffed animals (stuffed bear, rabbit, dog). Put objects and picture within student's grasp or eye gaze. Have an assistant hold up one object, then present 3 objects to the student, one of which is the same as the one being held by the assistant. Have the student touch/look at the same animal.

<b>Technology</b> Classroom Suite Animal Puzzles	<b>Craft</b> Find multiple images of familiar animals. Cut/Paste on 5x7 or 8x10 paper. Laminate to use with indoor or outdoor matching	<b>Cooking</b> Make jello jiggles and use cookie cutters to make several pairs of animals. Students select the animals that are the same.	<b>Outdoor/Indoor Activity</b> Play parachute game (if parachute and small and large stuffed animals are available. Call out, all (name of
---	---	--	---

	game.		animal in). Another game to play is prior to activity, make cards of animals that are the same species, but different images (photograph and clip art). Place students in 2 rows facing each other. First one row finds the matching animal from the other row. Switch pictures and have the other row find the animal that is the same.
--	-------	--	--

SC.3.L.15.Su.a

Sort common animals by observable characteristics.

**Teaching Strategies**

Introduce unit with video (Introduction to Classification included in the video folder). Give students opportunity for tactile experience to differentiate outside covering of animals. Use feathers for birds, uninflated balloon for amphibians, faux fur for mammals, small disc shaped sequins for fish, and large disc shaped sequins for reptiles. On a large screen, show Classroom Suite activity Animal Classification. After using the activity, make a graph on a white board that lists the characteristics of each class of animal (mammals, birds, reptiles, amphibians, and fish).

<p><b>Technology</b> Classroom Suite activity Classifying Animals. FAA Classroom Suite Activity Classification of Animals 3 Button Choice</p>	<p><b>Craft</b> Have students make objects to play game “What’s in the Box” Using silhouettes of each class of animal (see template in notebook), glue on faux fur, feathers, pieces of balloon (amphibians), large disc shaped sequins for reptiles, and bubble wrap for fish.</p>	<p><b>Cooking</b> Roll out packaged cookie dough and cut with animal cookie cutters. Have students identify which class of animal the cookie they choose belongs to. You may also use jello jiggles by using cookie cutters to make animal jiggles. Top with cinnamon and sugar on the cookies or Cool Whip on the jello.</p>	<p><b>Outdoor/Indoor Activity</b> Use a digital camera and take pictures of animals seen around the school yard. Once pictures are printed, have students identify the animal’s classification. Put objects made in <b>Craft</b> activity into a box. Student feels the textures to identify the outside coverings on</p>
---	---	---	---

			the animals
--	--	--	-------------

**SC.3.L.15.In.a**

Classify animals by a similar physical characteristic, such as fur, feathers, and number of legs.

<b>Teaching Strategies</b>			
The same strategy for supported students can be used with independent students, but extend the benchmark by emphasizing additional features of animals, such as ears, legs, and mouths.			
<b>Technology</b> United Streaming Videos Classroom Suite Classification of Animals	<b>Craft</b> How Different Animals Feel Use silhouettes of animals and glue on different tactile materials.	<b>Cooking</b> Make cookie or jello jiggle critters. Top with cinnamon and sugar on the cookies or Cool Whip on the jello.	<b>Outdoor/Indoor Activity</b> Make a PowerPoint of pictures taken that show the different classification of animals found around the school yard. Play game "What's In the Box."

**SC.3.L.15.Pa.a**

Match animals that are the same.

<b>Teaching Strategies</b>			
Show students actual photographs of familiar animals. Show students clip art of the same animals. Hold the pair of animals side by side. Use plastic replicas of animals provided. Lay out the 2 pictures and the plastic model of the same animal. Tell the student these 3 objects are the same animal. Replicate the format of the FAA by showing students groups of 3 items. After exposing the students to the 3 replicas that represent the same animal, remove one of the items and substitute with something that is not the same animal.			
<b>Technology</b> Classroom Suite Find the Same. Assess with Find the Same 3 Button Choice.	<b>Crafts</b> Find, glue and paste on separate sheets of paper pictures of the same animal, one animal per sheet. Make a set of photographs and another of clip art.	<b>Cooking</b> Make Jello Jiggles using cookie cutters to make pairs of animals	<b>Outdoor/Indoor Activity</b> Use the pictures made from the <b>Craft</b> activity to Play "What's My Match." Line students in 2 rows facing each other. Give one row the pictures that look like

			photographs, and the other row the clip art. Students with the photographs find the same animal in the clip art row. Assistants can push wheelchair students and help guide walking students to the correct match.
--	--	--	--

SC.3.L.15.Su.a

Sort common animals by observable characteristics.

**Teaching Strategies**

Look at the United Streaming Videos to choose one that is appropriate for sorting animals by characteristics. You may also introduce with Classroom Suite activity Classification of Animals and Animal Attributes. Match pictures of classes of animals with tactile representations made in previous activities. Use the white board or Kidspiration to graphically represent the characteristics of mammals, reptiles, birds, fish, and amphibians.

<b>Technology</b> Classroom Suite Classification of Animals Kidspiration	<b>Crafts</b> Use outlines of animals provided in notebook to glue on feathers, faux fur, pieces of balloon, and large and small shaped disc sequins.	<b>Cooking</b> Cut of crust from slices of bread. Fill with peanut butter and jelly (you can use communication devices for choices of smooth/crunchy peanut butter and 2 kinds of jelly) or use soft cheese spread. Cut out animal shapes with cookie cutters. Have students identify class of animal before eating.	<b>Outdoor/Indoor Activity</b> What's in the Box (or Bag)? Put items made in <b>Craft</b> activity into a box or bag. Students reach in and determine from the feel what classification of animal the item belongs to.
---	--	---	---

SC.912.L.15.In.b

Classify living organisms into their kingdoms.

**Teaching Strategies**

Linda Laverty  
Instructional Tech Specialist  
FDLRS Alpha/Dept of Exceptional Student Education  
Palm Beach Co. FL

There are 5 Kingdoms for students to recognize. Give each pair of students a bag of chips and tell them to divide the chips into groups of common characteristics. Explain how we give names to groups of things that appear similar, even though each group may have individual characteristics. Provide pictures of each Kingdom. On white board or Inspiration, make a chart showing the Kingdoms and their characteristics. Ask students which Kingdoms are familiar to them, and which are unfamiliar.

<b>Technology</b>	<b>Crafts</b>	<b>Cooking</b>	<b>Outdoor/Indoor Activity</b>
Brain Pop Video The Five Kingdoms	Assist the students in making a PowerPoint of the 5 Kingdoms. Have students search the internet for pictures and information.	Describe how organisms of each Kingdom get energy in the form of food. If you have or can borrow a bread maker, have students make bread, which uses an organism from the Fungi Kingdom.	Go to a wildlife preserve or park to see how many examples of organisms can be found from each kingdom. Make a chart of this information either by drawing pictures or by researching on the web.

SC.912.L.15.Pa.b

Sort common living things into plant and animal kingdoms.

**Teaching Strategies**

Show students on large screen examples of plants and animals. Bring in a live plant and show how a plant can't walk. Provide student with 3 choices of items, one of which is a plant. Make a simple PowerPoint with photographs of animals and plants.

<b>Technology</b>	<b>Crafts</b>	<b>Cooking</b>	<b>Outdoor/Indoor Activity</b>
Classroom Suite Activity Animals All Around Me	Make posters or collages of plants/animals using magazines provided in Project WILD supplies.	Make a snack of edible items from trees, i.e. bananas, peaches, apples, pears, nuts, and chocolate all come from trees.	Walk around school yard. Use simple communication device with audio output "This is a plant/animal."

SC.912.L.16.Pa.b

Recognize similarities in characteristics of plants and animals of the same type (species).

**Teaching Strategies**

Linda Laverty  
Instructional Tech Specialist  
FDLRS Alpha/Dept of Exceptional Student Education  
Palm Beach Co. FL

Show 3 pictures of different kinds of animals, and 3 pictures of different kinds of plants. Example, 3 pictures of dogs, and 3 pictures of roses. Repeat with trees, birds, fish, and bushes. Once the students have been provided examples of plants and animals within a species, provide 3 items, one of which does not belong in the group (2 plants and 1 animal).

<p><b>Technology</b> Classroom Suite Activity Find the Same, Animals I See Around Me, and Animal Attributes. Also included in <b>Technology</b> activities are cause/effect puzzles on animals and plants.</p>	<p><b>Crafts</b> Make a touchable poster of plants by using items found on a scavenger hunt.</p>	<p><b>Cooking</b> Fruit Smoothie. Use frozen or fresh fruit. Tell students that fruits are plants that many animals eat.</p>	<p><b>Outdoor/Indoor Activity</b> Using masking tape, make a large Tic Tac Toe grid on the floor. Hold up pictures of plants and animals. Two students at a time play, one being an X and the other a O. Students in wheelchairs can be moved onto grid spaces by assistants.</p>
--	--	--	---

# Habitats/Interdependence



## Habitats/Interdependence

### SC.1.L.17.In.a

Observe and recognize that plants and animals need water and food.

#### Teaching Strategies

Ask how many students have pets. Ask what they think a pet needs to stay alive. Ask what they think will happen if an animal does not get food or water. On the white board or graphing paper, make a list of what plants need and what animals need to stay alive. Conduct a science experiment by growing 2 identical seeds in separate containers. Provide water and sun to one plant and not the other. Have students observe the difference.

<p><b>Technology</b> Classroom Suite Activity What Animals Eat</p>	<p><b>Crafts</b> Decorate flower pots. Give each student a clay or plastic flower pot to decorate. Fill with topsoil and plant a bean or other fast growing seed.</p>	<p><b>Cooking</b> Use refrigerated biscuit dough. Have students shape into plants and animals. Sprinkle with cinnamon and sugar, Bake until browned.</p>	<p><b>Outdoor/Indoor Activity</b> Take a Plant to Lunch Let students dress up and tell them they are taking a plant to lunch. Ask them what they will feed the plant (crackers, pizza). Ask the students what the plant will need to eat for lunch. Extend by asking how they could take their pet to lunch.</p>
--	---	--	--

### SC.1.L.17.Su.a

Observe and recognize that plants and animals need water.

#### Teaching Strategies

Ask how many students have pets. List the pets on the board. Ask students if there are plants where they live. Remind students that trees and bushes are plants. Ask students if they help take care of their pets, and what they do to help. Elicit from the students that to take care of a pet they must provide it with water. Tell students that plants need water as well to stay alive. Plant or bring in 2 small plants. Help students water one plant and not the other. Have students observe what happens when a plant isn't watered.

<b>Technology</b>	<b>Crafts</b>	<b>Cooking</b>	<b>Outdoor/Indoor</b>
-------------------	---------------	----------------	-----------------------

<p>Make a PowerPoint with pictures of common plants and animals. On each frame, state the name of the animal or plant with the phrase "needs water." Example: dogs need water. Trees need water.</p>	<p>Decorate flower pots. Give each student a clay or plastic flower pot to decorate. Fill with topsoil and plant a bean seed</p>	<p>Use refrigerated biscuit dough. Have students shape into plants and animals. Sprinkle with cinnamon and sugar, Bake until browned</p>	<p><b>Activity</b> Have students play outdoors being a plant (model how a plant would stay still and reach arms out) and various familiar animals (bird, dog, horse). When the children return indoors, ask them how they feel? Elicit the response thirsty. Tell students that all animals experience thirst and need water.</p>
--	--	--	---

SC.4.L.17.In.b

Recognize that animals cannot make their own food and they must eat plants or other animals to survive.

**Teaching Strategies**

Review that all plants and animals need food and water. Remind students that plants use sun and water to make their own food. Ask students if animals could survive with just sun and water. Make a chart of what students ate for breakfast to demonstrate that what they consumed is derived from a plant (cereal) or an animal (eggs, bacon, etc.)

<p><b>Technology</b> Classroom Suite Activity Food Chain &amp; What Animals Eat</p>	<p><b>Crafts</b> Make paper bag puppets of predator and prey. See paper bag puppets included in materials.</p>	<p><b>Cooking</b> Egglicious Make egg salad and place on wheat crackers.</p>	<p><b>Outdoor/Indoor Activity</b> Take students outdoors or in a gym. Tell them they are going to play the Predator Game. Use masking tape or hula hoops to designate the habitat of the prey. In a separate area, put tokens representing food. Have 3 times as many prey as predators. At the words "Sun Up," the prey must go to the</p>
---	--	--	---

			food source without being caught by the predator.
--	--	--	---

#### SC.4.L.17.Su.b

Recognize that animals (consumers) eat plants or other animals for their food.

#### Teaching Strategies

Introduce with video “You in the Food Web.” Explain that plants are producers and all animals are consumers. Use animal cards provided to discuss what each animal eats. Ask students if plants eat animals.

<b>Technology</b> Classroom Suite Activity Food Chain and What Animals Eat	<b>Crafts</b> Make a bulletin board showing animals that eat animals (carnivores), plants (herbivores), and both (omnivores).	<b>Cooking</b> Make a menu for lunch of favorite foods of students. Show which items are plant and animal based. Prepare a lunch based on students’ favorites called “Fit for an Omnivore.”	<b>Outdoor/Indoor Activity</b> Play “Who Wants to be a Millionaire” by having students identify whether an animal is a predator/prey, and its food preferences.
---	---	--	---

#### SC.4.L.17.Su.c

Recognize ways that people can help improve the environment, such as cleaning up trash.

#### Teaching Strategies

Introduce with video “Protecting the Habitats of Earth’s Many Creatures.” Search on the web for a picture of an area that is covered with litter. Ask students to identify what is wrong. Describe ways that the area can be improved. Talk about recycling and how this action can improve the habitat.

<b>Technology</b> Use Classroom Suite Wring Science Template to brainstorm ideas for recycling. Kidspiration may also be used for brainstorming.	<b>Crafts</b> Have students wash out milk or juice cartons, assorted other sanitary items that can be used to make a My Treasures Mobile. Egg cartons can also be used to make bug eyes (template provided in Project	<b>Cooking</b> Make pudding with pieces of a contrasting color to resemble bits of trash.	<b>Outdoor/Indoor Activity</b> Have students go around school or park to find a branch or stick for “It’s My Treasure” mobile.
--	--	---	---

	WILD notebook under <b>Crafts.</b>		
--	------------------------------------	--	--

**SC.5.L.15.In.a**

Identify ways that plants and animals can be affected by changes in their habitats, such as lack of food or water, disease, or reduced space.

**Teaching Strategies**

Introduce with video Changes in Habitats. Review the essential components that living things need (food, water, shelter, and space). Use Classroom Suite Writing Template (in Published Activities folder) Science Writing to brainstorm ideas for how animals are affected when the habitat changes. Focus on how drought, climate, and overcrowding impacts animals.

<p><b>Technology</b> Have students write a paper (use Classroom Suite Published Folder/Writing Templates/Science Report) or other graphic organizer to provide students with format for writing a paper on how animals are affected by changes to their environment.</p>	<p><b>Crafts</b> Make a bulletin board on how habitat changes impact animals.</p>	<p><b>Cooking</b> Make a trail mix of various seeds and fruit to top yogurt or ice cream. Have students identify what would happen if one of the items no longer existed.</p>	<p><b>Outdoor/Indoor Activity</b> Each student is given either a card representing the basic needs of living things or a card representing the various classes of animals and plants. Several examples of the same component or animal can be given to different students, depending on the size of the class. Student states which animal or plant they represent. (The animals toss a ball of yarn to each other creating a web.) Remove one of the items (such as sun or water). What happens to plants? Remove the plants. What happens to the animals that eat plants?</p>
--	---	---	---

SC.5.L.15.Su.a

Recognize ways that plants and animals can be affected by changes in their habitats, such as lack of food or water.

**Teaching Strategies**

Introduce with video Changes in Habitats. Review the essential components that living things need (food, water, shelter, and space). Have 2 students try to sit in the same chair. Make a correlation to each that each animal needs space. Put less snacks and drinks on the table than the number of students. Ask students what they think will happen to people and animals when there is not enough space, food, and water.

**Technology**

Model writing some sentences about what animals need. Use Pix Writer for students to click on the buttons to make their own sentences.

**Crafts**

Students find pictures of various habitats (either from the web or looking through magazines). Paste on card stock to form Habitat cards.

**Cooking**

Make a trail mix of various seeds and fruit to top yogurt or ice cream. Have students identify what would happen if one of the items no longer existed.

**Outdoor/Indoor Activity**

Use habitrack cards provided in materials. Assign students to be various animals that live in that habitat (woods, swamps, grassy plains). Provide tokens that represent food and water source (less than the number of animals assigned). Have students find their appropriate habitat that is taped on the floor. Ask students what will happen to the animals that don't get food and water in their habitat.

SC.5.L.17.Su.a

Recognize that many different kinds of living things are found in different habitats.

**Teaching Strategies**

Introduce with video Habitats Homes for Living Things. Emphasize that different animals need different homes. Show pictures (using document camera and projecting habitats found in magazines or pictures found on the web), to show students the habitats of different animals.

<p><b>Technology</b> Classroom Suite Activity Critters Need a Home</p>	<p><b>Crafts</b> Make a habitat condo. Cut off half of a clear plastic (2 liter bottle). Fill with top soil. Plant with grass seed or any other fast growing seed. Ask students what living things could live in the habitat.</p>	<p><b>Cooking</b> Make a critter dessert. Include the kinds of food that birds (sunflower seeds) raccoons (fruit) and horses (apples) will eat and place over yogurt.</p>	<p><b>Outdoor/Indoor Activity</b> Take field trips to different habitats or locate habitats in the school yard. Make an observation list of the animals found around the school habitat.</p>
--	---	---	--

SC.5.L.17.Pa.a

Match common living things with their habitats

**Teaching Strategies**

Use felt cutouts of simple animal shapes or use the animal cards provided. Attach pictures to poster board and laminate. Cut out simple shapes of habitats (tree, pond, bush, etc.). Place the animals on the habitats.

<p><b>Technology</b> Use PowerPoint activities One Lonely Bird, Under the Sea, and Bear Song for single switch activation activities.</p>	<p><b>Crafts</b> Cut out pictures from magazines provided to match animals to their different habitats. Make a bulletin board of pictures students find.</p>	<p><b>Cooking</b> On paper plates, draw or paste various habitats. Use the cookie cutters provided to make animal cookies. Place the cookies on the paper plate representing that animal's habitat.</p>	<p><b>Outdoor/Indoor Activity</b> Give each student an animal card. On the floor, tape down habitrack cards or laminated pictures of habitats. Play music. When music stops, students must find correct habitat. Wheelchair students can be pushed by assistants. A variation can be for students to place a stuffed animal in the correct habitat.</p>
---	--	---	---

SC.6.L.14.Pa.b

Identify basic needs of plants and animals.

<b>Teaching Strategies</b>			
<p>Show students 3 items- food, a drink, and a toy or book. Ask students to look at/touch the 2 things that all living things must have to live. Make pictures (using Boardmaker icons or other graphic representations) of the essential needs of plants and animals. Use the 3 item format of the FAA. Have students eye gaze/touch the picture of something that is not a basic need.</p>			
<p><b>Technology</b> Pix Writer to make simple sentences of essential needs of plants and animals.</p>	<p><b>Crafts</b> Make a mobile of a simple food chain (sun, water, food, shelter). Decorate a clay or plastic pot to grow a plant (bean). Show that the plant needs sun and water to grow.</p>	<p><b>Cooking</b> Make chicken soup (represents water, plants (vegetables and rice) and pieces of chicken.</p>	<p><b>Outdoor/Indoor Activity</b> Find food and water sources around the school. Make simple sentences using Pix Writer for students to use.</p>

**SC.7.L.17.In.a**

Identify that in a simple food chain, energy transfers from the Sun to plants (producers), to animals (consumers), and to organisms that cause decay (decomposers).

<b>Teaching Strategies</b>			
<p>Review with video Habitats Homes for Living Things and What is a Habitat. Use a graphic organizer, or draw a graph on the board, to list the necessities of plants and animals. Talk about the role of decomposers in a habitat.</p>			
<p><b>Technology</b> Use Inspiration or Microsoft Word 07 Smart Art to create a food chain.</p>	<p><b>Crafts</b> Make a mobile or bulletin board of a simple food chain.</p>	<p><b>Cooking</b> Design a meal using plants, animal products, and decomposers (mushrooms). An example may be making a sub sandwich. Use a word processor to write down what each item represents in a food chain.</p>	<p><b>Outdoor/Indoor Activity</b> Play Jeopardy using information about producers, consumers, and decomposers.</p>

**SC.7.L.17.In.c**

Recognize that living things compete with each other to get the things they need to live in their local environment.

**Teaching Strategies**

Place cards around the room with the names of different habitats (swamp, forest, grassy plain). Put tokens out that represent food and water. Assign students to represent different organisms. Stress that organisms compete with each other for food, water, and space. Discuss the definition of the term “overpopulation” and its impact on animals. Show students pictures of wolves, bats, spiders, and other predators. Ask the students how they feel about these animals. Provide students with information about the need for predators to control population of prey.

<p><b>Technology</b> Using Nettekter, have students research information about competition among living things and overpopulation. Using Classroom Suite templates/Writing Template/Journal 3, or Microsoft Word, have students write a report about overpopulation of a species and its effect on the environment.</p>	<p><b>Crafts</b> Make a bulletin board containing information from students’ research</p>	<p><b>Cooking</b> The Great Cook-Off. Students develop a healthy recipe. Assistant Principal or ESE Contact judges the winner.</p>	<p><b>Outdoor/Indoor Activity</b> CBI trip to purchase ingredients to make recipe.</p>
---	---	--	--

SC.7.L.17.Pa.c

Recognize what happens when animals don’t get food and water.

**Teaching Strategies**

Review that all living things need food and water. On large screen, show students Classroom Suite activity Critters Need a Home. Ask students how they would feel if they were hungry and had no food. Make the correlation to animals. Show students pictures of items that represent basic needs, and one item that doesn’t. Ask them to touch or eye gaze to the item that is not food/water. Use the same technique with pictures representing food/water.

<p><b>Technology</b> Make a communication overlay with Boardmaker showing thirsty/hungry to show how it feels to not have food/water.</p>	<p><b>Crafts</b> Make a collage showing basic necessity of food and water that animals need.</p>	<p><b>Cooking</b> Make a water based drink (Kool Aide or Lemonade). Have 2 other items that are not liquid. Ask the student to look at /touch what they need if they are thirsty. Use the same technique with a snack. Have one item that represents food, and 2 that don't.</p>	<p><b>Outdoor/Indoor Activity</b> Draw with chalk or masking tape 2 large circles. Place a picture of water in one, and a food item in another. Play music and have students move around outside of both circles. When the music stops, students must identify if the circle represents food or water.</p>
---	--	--	--

SC.7.L.17.Su.a

Identify different types of consumers in a food chain, including animals that eat plants, animals that eat other animals and animals that eat plants and animals.

**Teaching Strategies**

Introduce topic by showing students on large screen Classroom Suite activity What Animals Eat. Ask students what they ate for dinner. If students are nonverbal, use Boardmaker to provide choices of popular dinner dishes. Write responses on chart paper or board. Point out that students eat both and vegetables (plants) and meat (animals). Talk about familiar animals that eat just plants (horses, cows), animals that eat meat, and animals that eat both, which includes themselves.

<p><b>Technology</b> Classroom Suite Activity Food Chain</p>	<p><b>Crafts</b> Have students sort through magazines or search on internet for pictures of animals. Have students paste onto poster board and identify what kind of consumer. Use pictures for Deal or No Deal game.</p>	<p><b>Cooking</b> Make a food representing what each kind of consumer eats herbivores - bake sunflower seeds; omnivores - fruits; carnivores – chili or sloppy joes.</p>	<p><b>Outdoor/Indoor Activity</b> Play Deal or No Deal. Students make a deal by answering whether an animal eats just plants, animals and plants, or other animals.</p>
--	---	--	---

SC.7.L.17.Su.b

Recognize how living things affect each other in their habitat (ecosystem).

### Teaching Strategies

Introduce students to the term “environment.” (Environment includes all the things around us—natural features, such as the land, climate, and vegetation; and human features, such as buildings, roads, and other things people have made.) Ask students to suggest some basic components of the natural environment. (Answers may include rocks, water, vegetation, the air, the sun.) Next ask students to suggest some basic components of the human environment. (Answers may include buildings, roads, and other features that people have added to the landscape.) Make sure all students understand these two concepts before proceeding. Have students identify ways in which human and adapted features change the natural environment. What natural features do they displace? (Answers may include animals, trees, soil, and birds.) Is such displacement permanent? (If a forest is removed, the change would be permanent. The wildlife and plants may not return, but birds might return if trees were planted.)

<b>Technology</b> Review with Critters Need a Home	<b>Crafts</b> As a class project, have students replicate in a box items that may be found in a natural environment. Add items found outside (twigs, leaves, grass, rocks) to make a shoe box natural environment.	<b>Cooking</b> Make trail mix using natural ingredients. Sweeten with honey instead of sugar.	<b>Outdoor/Indoor Activity</b> Go outdoors and items to use in the shoebox habitat.
--	---	---	--

### SC.7.L.17.Su.c

Identify how a lack of food, water, or shelter affects plants and animals in their habitats.

### Teaching Strategies

Have 2 students try to sit in the same chair. Make a correlation that animals need space. Put less snacks and drinks on the table than the number of students. Ask students what they think will happen to people and animals when there is not enough space, food, and water.

<b>Technology</b> Model writing some sentences about what animals need. Use Pix Writer for students to click on the buttons to make their own	<b>Crafts</b> Make a TreeOgram At the top, write “what all living things need.” Underneath write in separate columns what plants need and what	<b>Cooking</b> Choose a critter to make from recipes provided in notebook. Ask students what that edible critter in real life would need to stay	<b>Outdoor/Indoor Activity</b> Take students to a park. Using a digital camera, take pictures of different sources of food and water for
--	---	--	---

sentences.	animals need. Have the students fill in what plants need and what animals need. Use for a bulletin board.	alive.	animals that live in the area. Import into Classroom Suite or PowerPoint.
------------	---	--------	---

SC.8.L.18.Pa.a

Recognize that plants need water and light to grow.

**Teaching Strategies**

Plant a fast growing plant (including grass seed) into a terrarium that students make as **Craft** activity. Place another terrarium where there is no sun, and it isn't watered. After one week, compare the two plants. Have students touch or look at the healthy plant. Show students pictures that represent sun and water. Place a third picture that is a distracter. Have the students touch/look at the picture that does not represent a basic need of a plant.

<b>Technology</b> Video Plant Habitats around the World	<b>Crafts</b> Make leaf tracings	<b>Cooking</b> Fruit smoothie	<b>Outdoor/Indoor Activity</b> Go around school yard and look for leaves for <b>Craft</b> activity. Take digital pictures of plants from which they leaf came. Import into PowerPoint slide show with music.
---	-------------------------------------	----------------------------------	---

SC.8.L.18.Pa.b

Recognize that food provides energy.

**Teaching Strategies**

Ask students how they would feel if they didn't have anything to eat. Show them pictures that represent hungry. Tell students that to work and play, animals must have food. Show students three items, one of which represents food. The other two are distracters. Have them touch/look at the food source. Stress the word "energy" when doing this activity.

<b>Technology</b> Classroom Suite Activity What Animals Eat. Make a Pix Writer	<b>Crafts</b> Make a collage of different items that animals eat.	<b>Cooking</b> Choose a critter to make using recipes provided in book.	<b>Outdoor/Indoor Activity</b> Place a collage of things animals eat, toys, and
---	--	--	--

Linda Laverty  
Instructional Tech Specialist  
FDLRS Alpha/Dept of Exceptional Student Education  
Palm Beach Co. FL

writing activity with simple sentences, such as “Dogs need food for energy; horses need for energy; people need food for energy. Students click on buttons to make the sentences.			landscapes around the floor. Play music. When music stops, the students must identify if the picture closest to where they have stopped represents a food item.
---	--	--	---

SC.912.L.17.Pa.e

Recognize that animals (consumers) eat animals and plants for food.

**Teaching Strategies**

Show students pictures of a fruit (plant) and a hamburger (meat). Tell students that people eat both plants and animals. Follow format above for having students look at 2 items that an animal would eat, and one picture of a non food item (such as toy or book). Have the students touch/look at the picture that is not a food source.

<p><b>Technology</b> Classroom Suite 4 What Animals Eat</p>	<p><b>Crafts</b> Use the animal cards and choose those that are familiar to students (or look for pictures in magazines). Place Velcro on back. Make 3 collages, one of animals, one of plants, and the third containing both plants and animals. Students are given pictures of animals backed with Velcro. Students place the picture on the correct collage.</p>	<p><b>Cooking</b> Make a snack that represents a plant (fruit smoothie or peanut butter on bread) and a snack that is meat product (chili, hot dog). Remind students that some animals, including humans, eat both plants and animals.</p>	<p><b>Outdoor/Indoor Activity</b> Play Is It Edible? Mark off spaces on floor with masking tape. Use a die or spinner. Student rolls die or spinner. Select an animal from a stack of animal pictures (pick familiar animals). Student states whether or not that animal eats plants, other animals, or both.</p>
---	---	--	---

SC.912.L.17.In.b

Recognize what happens to plants and animals when they don't get enough food or water.

**Teaching Strategies**

Discuss with students the effects of draught on a habitat. Reference the situation in California and the danger from fire. Talk about how famine occurs and what happens to the animals (including people) when a habitat doesn't have enough water. Research on the web nations that are currently experiencing famine and its effect on the population. Discuss how plants and animals may become extinct when there is not enough water to support the habitat.

<b>Technology</b> Use Nettekter to research draught and famine. Students make a report using multi-media such as PowerPoint or Classroom Suite.	<b>Crafts</b> Make a bulletin board reflecting their research.	<b>Cooking</b> Go to <a href="http://www.freerice.com">www.freerice.com</a> to answer vocabulary questions. Each correct answer provides 20 grains of rice to a person in a third world country.	<b>Outdoor/Indoor Activity</b> Students write down information on note cards they acquired from their research. Using the format of Who Wants to be a Millionaire or Jeopardy, students quiz each other on the information.
--	---	---	--

SC.912.L.17.Pa.b

Recognize what happens to plants and animals when they don't get enough food or water.

**Teaching Strategies**

Ask students how they would feel if they didn't have anything to eat or drink. Show them pictures that represent hungry and thirsty. Tell students animals and plants must have food and water. Show students 3 items, food, water and one a distracter. Ask students to touch/look at the picture that is not a necessity. Have 2 plants, one of which has been watered and placed in sun, the other has not. Show students the difference. Have them touch or look at the plant that has been watered and in the sun.

<b>Technology</b> Make a PowerPoint showing what plants look like in a draught and plants that are well watered.	<b>Crafts</b> Students decorate clay or plastic pots to grow a plant.	<b>Cooking</b> Make chicken soup to show that animals need both water and food. Include vegetables (plants) and chicken (animals).	<b>Outdoor/Indoor Activity</b> Use grass or other fast growing plant for students to be able to observe their plants growing.
---	--	---	--

SC.912.L.17.Su.b

Recognize how animals and plants in an ecosystem may be affected by changes to the food supply or climate.

**Teaching Strategies**

Review the topic with video Changes in Habitats. Discuss with students some changes in a habitat that can cause loss of water. Ask students to list some consequences of changes to a habitat. Write their responses on the board.

<p><b>Technology</b> Write several paragraphs using Pix Writer or Word using the responses students have given.</p>	<p><b>Crafts</b> Make a bulletin board of the effects of climate change on food supply</p>	<p><b>Cooking</b> Ask students to name their favorite foods. Ask them what is needed in the habitat for these foods to be available. Choose one of the favorite foods and develop a recipe.</p>	<p><b>Outdoor/Indoor Activity</b> Go on CBI trip to purchase items for the selected recipe.</p>
---	--	---	---

SC.912.L.17.Su.e

Identify producers, consumers, and decomposers in a simple food chain.

**Teaching Strategies**

Review with Classroom Suite Food Chain. Make a Graph on the board showing a simple food chain that includes sun, plants (producers) consumers (plant and animal), and decomposers (fungus).

<p><b>Technology</b> Students type words used in a food chain as described above).</p>	<p><b>Crafts</b> Make a food chain mobile using pictures found in magazines.</p>	<p><b>Cooking</b> Have students provide their favorite food item and determine where it is in the food chain (producer or consumer). Choose a favorite food to make (use one of the recipes provided and determine if it represents a producer or consumer).</p>	<p><b>Outdoor/Indoor Activity</b> Go to a park. Observe the various organisms. Determine if they are producers or consumers. Count how many producers/consumers students identified and count the number.</p>
--	--	--	---

SC.912.L.18.Pa.e

Recognize that plants and animals use water to live.

**Teaching Strategies**

Ask students how they would feel if they didn't have anything to drink. Begin by showing students an actual water bottle. Then show them pictures that represent thirsty. Tell students animals and plants must have water to survive. Show students 3 items, 1 of water, and the other two are distracters. Ask students to touch/look at the picture that represents water. Have two plants, one of which has been watered and placed in sun, the other has not. Show students the difference. Have them touch or look at the plant that has been watered and in the sun.

<b>Technology</b> Make a slide show that contains images of different water sources (lake, water fall, river, ocean, etc.) Play with music.	<b>Crafts</b> Cut out various pictures of sources of water.	<b>Cooking</b> Make a water based drink, such as a Smoothie. Use Boardmaker for pictures representing ingredients and steps in making the Smoothie.	<b>Outdoor/Indoor Activity</b> Go around school yard and take digital pictures of water sources. Import into PowerPoint or Classroom Suite.
--	--	--	--

# Life Cycles

The title 'Life Cycles' is written in a large, green, serif font. A small black tadpole is perched on the top of the letter 'L', and a small yellow frog is perched on the bottom of the letter 's'. A faint, light green version of the text 'Life Cycles' is visible in the background behind the main title.

## Life Cycles

### SC.1.L.16.In.a

Match offspring of specific animals to adult animals.

#### Teaching Strategies

Introduce by showing pictures of yourself or a family member as a baby, toddler, child, and adult. Ask students to raise their hands if they have a mom or dad (some children may be raised by grandparents, so include them in the question). Ask students if they have pets and if they had the pets as babies. Show pictures of common animals as babies and as adults. On large screen, show students Classroom Suite story *Is Your Mama a Llama*. Ask students how the young animals looked compared to the adults. Provide examples: puppies look like dogs; kittens look like cats. Show Life Cycle videos of mammals. Compare offspring of mammals to amphibians and insects.

<b>Technology</b>	<b>Crafts</b>	<b>Cooking</b>	<b>Outdoor/Indoor</b>
Classroom Suite Adults and Baby animals and Classroom Suite Assessment Animal Babies. Classroom Suite Activity Hungry Caterpillar	Make paper bag puppets of mammals. On the back of the paper bag, paste a picture of the baby and adult animal.	Make the edible <b>Craft</b> frog. Make an edible owl using rice cakes, triangle piece of cheese for the beak, and raisins for eyes. Ask which one has a baby that doesn't look like it.	<b>Activity</b> Play game "Who Am I?" Make a large grid on floor or out in play area using masking tape, Use large die or spinner. Each student has a turn. Show picture of a baby animal (including humans) to students. If student identifies the parent correctly, they move a number of spaces marked off by the tape.

### SC.1.L.16.Su.a

Recognize that baby plants and animals have parents.

#### Teaching Strategies

Introduce activity by showing in Classroom Suite or PowerPoint pictures of yourself with your parent or you with your child. Prior to activity, send letter home to parent or guardian asking them to send in a picture of themselves with their child. On bulletin board, display picture of parents with child. Tell students that plants and animals all have parents. Look on the internet or magazines for pictures of parents with offspring. On large screen, show students Classroom Suite story, *Is Your Mama a Llama*.

<p><b>Technology</b> Classroom Suite activity Adult and Baby Animals Videos of Life Cycles Is Your Mama a Llama</p>	<p><b>Crafts</b> Make a bulletin board called Me and My Parents. Show pictures students have brought in and pictures found in magazines.</p>	<p><b>Cooking</b> Roll out biscuit dough and make baby snake and a parent. Sprinkle with cinnamon and sugar. Bake until brown.</p>	<p><b>Outdoor/Indoor Activity</b> Have 2 rows of students. Give one row a picture of a baby animal. Give the other row a picture of its parent. Have row with baby animals find the animal's parent.</p>
---	--	--	--

**SC.2.L.16.In.a**

Observe and recognize the major stages in the life cycles of plants and animals.

**Teaching Strategies**

Show students videos of Life cycles of mammals, frogs and toads, and butterflies. Introduce the correct names of baby animals: puppies, kittens, calves, foals, etc. Review mammal offspring resemble their parents but other animals do not. Review stages of development in insects and amphibians. Make a Life Cycle card to show stages of development of insects and amphibians. Take a paper plate and mark off 4 sections. Use the life cycle cards provided and paste onto each section. Take another paper plate and divide into 4 sections. Cut out one section and fasten with brass fastener. By turning the top plate, students see each section of development at a time. Use the same process for development of a plant.

<p><b>Technology</b> Review Classroom Suite activity Adult and Animal Babies</p>	<p><b>Crafts</b> Make Life Cycle wheels following above directions</p>	<p><b>Cooking</b> Caterpillar Crackers Spread peanut butter or cream cheese over 6 overlapping Ritz crackers ( or however many crackers as students. Put raisins for eyes and ½ pretzel sticks for legs.</p>	<p><b>Outdoor/Indoor Activity</b> Play floor Tic Tac Toe. Provide cards of animals in different stages of development. If student gives correct answer, they move on the grid as either a 0 or X.</p>
--	--	--	---

**SC.2.L.16.Pa.a**

Recognize that offspring can be matched with their parents, such as a human baby with adult humans and a puppy with dogs.

**Teaching Strategies**

Ask parents to send in pictures of themselves with their child. Import into Classroom Suite or PowerPoint to display on large screen. Show picture of adult dog with puppies and cat with kittens. Show students pictures of their parents with 2 other pictures that are distracters. Have students touch/look at the picture of their parent. Use the same technique with pictures of familiar animals.

<b>Technology</b> Classroom Suite activity Hungry Caterpillar Classroom Suite Activity Is Your Mama a Llama?	<b>Crafts</b> Use pom poms to make a caterpillar. Cut chenille sticks into segments for legs.	<b>Cooking</b> Make a bird's nest with melted chocolate and chow mein noodles (directions in notebook). Fill with jelly beans for eggs.	<b>Outdoor/Indoor Activity</b> Parachute play with large/small stuffed animals. Have students place large stuffed animals in parachute first, then small stuffed animals representing the babies. Call "All parents in – all parents out." Do the same for baby animals.
--	--	--	---

SC.2.L.16.Su.a

Observe and recognize the sequence of stages in the life cycles of common animals.

**Teaching Strategies**

Introduce activity by showing in Classroom Suite or PowerPoint pictures of yourself or a family member as a baby, child, adult. Have students bring in pictures of what they looked like as babies. Scan them into PowerPoint or Classroom Suite to make a slide show. Show students pictures of animals as babies and as adults. Show life cycle of familiar animals. Use videos to reinforce stages of development.

<b>Technology</b> Adult and Baby Animals	<b>Crafts</b> Make a bulletin board called As We Grow using pictures students have brought in and pictures cut from magazines.	<b>Cooking</b> Roll refrigerator sugar cookie dough into small balls for spider eggs. Bake the remaining cookies as is. Put raisins for eyes and pretzel sticks for legs to represent adult spider.	<b>Outdoor/Indoor Activity</b> Look in stream or canal for tadpoles. Keep in large jar so students can see development. Butterfly kits can also be purchased.
---	---	--	--

SC.4.L.16.In.c

Identify similarities in the major stages in the life cycles of common Florida plants and animals.

**Teaching Strategies**

List familiar animals and plants native to Florida. Show stages of development for raccoons, bats, deer, birds (hawk, heron, mockingbird) frogs, and butterflies. Since Florida is known for oranges, present the following lesson about the growth of an orange tree. Remind students that Florida growth cycles are different than in colder climates. Begin by inviting students to share what they know about human life cycle. Explain that trees have life cycles too. Show students an orange seed. Explain that oranges grow from trees and grows from an orange seed. Explain that once a tree is mature, it begins to grow fruit.

<p><b>Technology</b> Classroom Suite activity My Florida Coloring Book Brain Pop Jr/Science/plants</p>	<p><b>Crafts</b> Make an orange tree. Show stages of an orange trees development using butcher block or construction paper. Paste or staple large brown strips of butcher block paper on the bulletin board. Begin from the left by pasting crumpled white tissue paper to represent seed. On next strip, use yarn to represent roots and twigs to represent a sapling. On the third strip, make a small tree with branches. Dip finger into tempura paint to make buds. On the final strip, make a large tree with branches. Use green tissue for leaves and form small white flowers with tissue paper.</p>	<p><b>Cooking</b> Make orange juice or orange popsicles from fresh orange juice.</p>	<p><b>Outdoor/Indoor Activity</b> Find pictures of native plants and animals. Go around school yard or park to find examples of native plants and animals. Make a graph showing the native plants you find.</p>
--	---	--	---

SC.7.L.16.Su.a

Recognize that offspring have similar characteristics to parents.

**Teaching Strategies**

Begin by inviting students to share what they know about human life cycle. Review pictures students may have brought in of themselves as babies. Share your pictures about yourself or a family member. Show pictures of young animals. Ask students to identify the animal. Help students come to the conclusion that most offspring have similar characteristics to parents.

<b>Technology</b> Brain Pop Jr/Science Mammal Babies Video Search on internet for pictures of adult and offspring. Classroom Suite activity Adults and Baby Animals	<b>Crafts</b> Make a butterfly cycle mobile (template and directions included in <b>Craft</b> section of notebook).	<b>Cooking</b> Make an egg omelet. Some animals are born alive, and others hatch from eggs, which many predators eat. Ask students which animals begin life by hatching from egg.	<b>Outdoor/Indoor Activity</b> Safari Hunt Take students outdoors to search for insect eggs and caterpillars. If a caterpillar is found and you have a bug box or butterfly habitat, carefully place insect with native food.
--	--	--	---

**SC.912.L.15.In.e**

Recognize that some living things produce very large numbers of offspring to ensure that enough survive to continue the species (a condition for natural selection).

**Teaching Strategies**

Tell students that out of 1000 baby sea turtles that hatch, only 2 will survive to adulthood. Ask students to suggest reasons for the large number of turtles that don't survive. Have students think about animals that care for their young and ones that don't. Make a list of animals that care for their young and ones that don't. Assign students to research species reproduction to determine the survival rate of offspring that are not cared for by a parent. If the animal did not reproduce in sufficient quantities, the species would not survive.

<b>Technology</b> Brain Pop/Science/Reproduction Research using Nettekter information about number of offspring to survival rate.	<b>Crafts</b> Create a bulletin board containing information gathered from research.	<b>Cooking</b> Some fish eggs are considered delicacies in other cultures. Have students research information about fish eggs, including countries that considered them to be	<b>Outdoor/Indoor Activity</b> Visit area in which sea turtles have nested. Ask students why the nests are protected. Determine the role of the parent in the survival of the
--	---	--	--

		delicacies and how much a pound costs.	offspring.
--	--	--	------------

SC.912.L.15.Pa.a

Recognize that plants and animals change as they age.

**Teaching Strategies**

Begin by showing pictures of yourself and students at various stages in yours and their development. Use PowerPoint and project onto a large surface. Show students stages of development with familiar plants and animals. Provide students with 3 choices of pictures. Have a young animal or insect, and one as an adult. In the 3 choices, include a picture that doesn't belong. Have students put the 2 pictures together that represent the life cycle of that animal.

<p><b>Technology</b> Review Classroom Suite activity Hungry Caterpillar. Have students identify stages of life cycle of butterflies referenced in the book. Video The Lives of Butterflies</p>	<p><b>Crafts</b> Bulletin board showing changes in plants and animals as they age.</p>	<p><b>Cooking</b> Eggtravagant omelet Make an egg omelet with vegetables and cheese. Eggs in the omelet represent the beginning life cycle of birds. Vegetables represent the adult stage of plants.</p>	<p><b>Outdoor/Indoor Activity</b> Visit an Animal Shelter to see young animals and compare to adult animals. Point out to students that the main difference is in size.</p>
--	--	--	---

SC.912.L.15.Pa.c

Recognize that animals produce offspring.

**Teaching Strategies**

Review with video Mammal Babies. Show students pictures of familiar animals as both babies and adults. Bring in objects that do not reproduce. Tell students these are nonliving things. They will never have babies. Put 3 items in front of student: 2 living things and 1 nonliving. Ask students to touch or look at the 2 items that can reproduce.

<p><b>Technology</b> Classroom Suite Adult and Baby Animals FAA Assessment Adult and Baby Animals</p>	<p><b>Crafts</b> Make a bulletin board. In the center, place a picture of the earth. Place pictures of animals and their</p>	<p><b>Cooking</b> Fruit Smoothie Remind students that plants also reproduce by spreading their seeds around. The fruit of a</p>	<p><b>Outdoor/Indoor Activity</b> Match Up game Give students pictures of adult animals and have them match to</p>
---	--	---	--

	offspring	plant represents the adult stage in development.	offspring of the animals.
--	-----------	--	---------------------------

SC.912.L.15.Pa.d

Recognize differences in physical characteristics within a species of animals, such as different types of dogs.

<b>Teaching Strategies</b>			
Review that animals may have differences within a species, but they are still the same species. Project on a large surface the Classroom Suite 4 activity Find the Same to reinforce concept. Show students photographs of people and animals. Provide 3 samples of the same animal (3 different people, dogs, cats, etc.).			
<b>Technology</b> Classroom Suite Activity Find the Same and FAA Classroom Suite Activity Find the Same.	<b>Crafts</b> Search through magazines for pictures of the same kinds of animals (dogs, cats, horses, frogs, etc.) Paste onto paper plates with popsicle sticks. These will be used for a game.	<b>Cooking</b> Use cookie cutters to make cookies. Make at least 2 of each animal. Put raisins on one, and put frosting on the other one. Have students find the matching animal.	<b>Outdoor/Indoor Activity</b> Find Your Match game. Every student holds up a paper plate puppet. Teacher calls out, "Find Your Match." Students must find the same animal.

SC.912.L.15.Su.e

Recognize that some living things, such as fish and turtles, produce very large numbers of offspring because most will die as a result of dangers in the environment before they grow up.

<b>Teaching Strategies</b>			
Introduce with the video on frogs and toads. Tell students that out of 1000 baby sea turtles that hatch, only 2 will survive to adulthood. Research information prior to the lesson to share with students about the average number of eggs turtles, snakes, frogs, and insects lay. Compare those numbers to the amount of eggs laid by a bird. Ask students why the same or more birds will reach adulthood than sea turtles. Examine the number of offspring produced by fish and turtles compared to humans and other animals. Have students think about animals that care for their young and ones that don't.			
<b>Technology</b> Help students make their own PowerPoint	<b>Crafts</b> Make a bulletin board about fish, frogs,	<b>Cooking</b> Make frog cookies with recipe provided in	<b>Outdoor/Indoor Activity</b> Critter Treasure Hunt

or use template from Classroom Suite to make a slide show of animals that produce large number of offspring.	turtles, and insects.	handbook.	Out in the school yard place pictures or toy models of animals that produce many offspring. Make a simple map of where each animal has been placed. Students use the map to locate the picture or replica of the animal.
--	-----------------------	-----------	--

SC.912.L.16.Pa.f

Recognize that living things produce offspring (reproduce).

**Teaching Strategies**

Prior to lesson, request parents to send in photographs of themselves. Scan and import into PowerPoint or Classroom Suite. Project onto a large surface. As follow-up, have students identify their parents. Project images of familiar animals with their mothers. Show pictures of nonliving things. Ask if a rock will have baby rocks. Provide students with 3 picture choices in which 2 of the pictures represent a living thing that reproduces, and the other is a picture of a nonliving object. Have students touch/look at the pictures of living things that reproduce.

<b>Technology</b> Classroom Suite Activity Is Your Mama A Llama and Adult and Baby Animals.	<b>Crafts</b> Use small paper plates to paste pictures of offspring of animals. Use large paper plates to paste pictures of the adult animals. Make paper plate puppets for things that do not reproduce.	<b>Cooking</b> Make jello jiggles animals. Include some that are just squares. Before eating, have students pick jello jiggles that look like an animal.	<b>Outdoor/Indoor Activity</b> Using paper plate puppets, have students stand around in a big circle. Call out "Things that have babies, go in." Call out "All things that have babies out." Repeat for things that do not reproduce.
--	--	---	--



# Adaptations

## Adaptations /Diversity and Evolution of Living Organisms

SC.4.L.16.In.b

Identify behaviors that animals have naturally (inherit) and behaviors that animals learn.

<p><b>Teaching Strategies</b></p> <p>Ask students how many have pets. List behaviors of the animal (bark, purr, wag tail, pant, claw.) Tell students that these are behaviors that the animal does naturally. Ask what other behaviors their pets exhibit (pawing at door to go out, give paw). These are learned behaviors. Make a graph on white board or large chart paper showing inherited and learned behaviors.</p>			
<p><b>Technology</b></p> <p>Classroom Suite activity Mixed Up Chameleon</p>	<p><b>Crafts</b></p> <p>Make a bulletin board showing behaviors animals inherit and ones that are learned.</p>	<p><b>Cooking</b></p> <p>Eating is an instinct, but <b>Cooking</b> is learned. Discuss what humans could eat if they didn't know how to cook. Prepare a menu of foods to eat without <b>Cooking</b>.</p>	<p><b>Outdoor/Indoor Activity</b></p> <p>Visit a veterinary to ask questions and learn about inherited and learned behaviors in pets. Find out why a dog is easier to train than a cat (or are they?).</p>

SC.5.L.17.In.a

Identify features of common plants and animals that enable them to survive in different habitats (environments).

<p><b>Teaching Strategies</b></p> <p>Identify animals that live in very cold/hot climates. Discuss the features that enable these animals to survive. Include coloring and body fat Show video The Diversity of Life. Many adaptations are to help the animal find and eat food and protect them from predators. Make a chart of how different adaptations help different animals.</p>			
<p><b>Technology</b></p> <p>Classroom Suite activity Seeing is Believing</p>	<p><b>Crafts</b></p> <p>Creature Feature Use objects found outside to press onto play dough or glue onto pine cones to create a unique creature.</p>	<p><b>Cooking</b></p> <p>Give each student a small pile of dark green lettuce leaves, a snap bean, and a grape tomato. Tell the students that the snap bean represents a caterpillar, and the</p>	<p><b>Outdoor/Indoor Activity</b></p> <p>Scavenger Hunt for materials for to use to make the critter. After completing, hide the critter. Give students simple maps that they must follow to find the</p>

		tomato represents a ladybug. Ask students which is easier to see and why.	critter.
--	--	---	----------

**SC.7.L.15.In.b**

Recognize that physical characteristics of living things are adapted to deal with the conditions of the environment, such as skin color or gills on a fish.

**Teaching Strategies**

Review with video Diversity of Life. Discuss adaptations in animals that enable them to deal with conditions in the environment. Conduct a simple experiment replicating the body fat of animals that live in extreme cold. Take 2 plastic baggies. In one baggie, fill half way with Crisco. Place the other baggy on top. Have students dip hand into freezing water with the bag with Crisco and then into the freezing water without the bag. Record how many seconds they can leave their hand in the freezing water with/without the bag. Record time for each student. Color is another adaptation that animals have to survive in their environment. List animals whose coloration helps them survive (example: polar bears, Arctic foxes).

<b>Technology</b> Research animal adaptations in different environments: woods, grassland, desert, arctic	<b>Crafts</b> Make bulletin board about how animals survive and adapt.	<b>Cooking</b> Use colored fish crackers to go fishing. Dip pretzel sticks into peanut butter to catch a colored fish.	<b>Outdoor/Indoor Activity</b> Go to a wildlife sanctuary (Loxahatchee Wildlife, Grassy Waters, Okecheelee) to learn about animals in the area. Make a list of animals found. Discuss how their outer coverings can help with survival.
--	---	---	--

**SC.7.L.15.In.c**

Explain extinction and give examples.

**Teaching Strategies**

Explain that extinction has always occurred, but it is happening at a much faster rate. Have students go to World Wildlife.org to learn about endangered animals. Ask students to define the difference between endangered and extinct. On white board, list the reasons animals and plants have become extinct.

<p><b>Technology</b> Pick an animal and make a report. Use either Classroom Suite Writing Template/Reports or PowerPoint to report on the animal they have chosen. Students make work individually, in pairs, or as a group project. A good resource for information and pictures on endangered and extinct animals go to <a href="http://www.library.thinkquest.org">www.library.thinkquest.org</a></p>	<p><b>Crafts</b> Make a bulletin board about extinction. Include ways in which the rate of extinction can be reduced.</p>	<p><b>Cooking</b> Learn about the eating habits of endangered animals and what food they need to survive. Make a menu called Dining Out with _____ (name of animal that student has researched).</p>	<p><b>Outdoor/Indoor Activity</b> Visit local zoo. Discuss animals contained there that are endangered. List reasons the animal has become endangered and what can be done to protect the animal from extinction.</p>
--	---	--	---

SC.7.L.15.Su.b

Recognize that common plants or animals have special features that enable them to live in their environment, such as a fish has gills so it can live underwater.

**Teaching Strategies**

Review with students that animals adapt to their surroundings. Show videos listed under technology column. List the classifications of animals on the board, or project on large surface using software Inspiration. Start with the title "All Animals." Branch out to each animal classification – mammals, birds, reptiles, amphibians, and fish. Underneath each, ask students to think of features that enable the animal to survive in its environment: birds have wings to cover distances quickly in search of food and to nest in trees for safety; mammals have fur to protect their bodies. They use 4 legs to move in search of food and for flight.

<p><b>Technology</b> Video Animals Colors and Shapes, Animal Features and Their Functions Inspiration</p>	<p><b>Crafts</b> Make a book that includes how animals adapt to survive.</p>	<p><b>Cooking</b> Pick an edible critter (crab, frog, owl ) and describe the characteristic that enable it to live in its environment.</p>	<p><b>Outdoor/Indoor Activity</b> Play game "What's My Feature." Make a large board game on the floor or on the white board. If using the floor, each student represents a token and moves the number of spaces shown on the die or</p>
---	--	--	---

			spinner. Each student is asked a question (I have a large shell to hide in. I am a _____. If playing on a white board, give each student a token with a magnet.
--	--	--	---

SC.7.L.15.Su.c

Recognize that some plants and animals no longer exist (are extinct).

**Teaching Strategies**

Ask students if dinosaurs are alive today. Tell students that dinosaurs are extinct. Explain that all living things die, but extinction means that all of the same kind of plant or animal will never exist again. Assist students in understanding this concept by comparing it to all dogs not existing again. One dog dying does not mean that all dogs have died. Review characteristics of living things and life cycle of animals. Emphasize to students that an animal’s ability to adapt will increase its chances of survival. Provide examples such as dogs and manatees. Manatees must live in warm water. They eat only certain foods, and they have only one or two babies at a time, whereas dogs live in many different climates and produce larger number of babies.

<b>Technology</b> Research animals and plants that are now extinct. Import into PowerPoint or Classroom Suite.	<b>Crafts</b> Make a large life cycle bulletin board with of animals and plants that have become extinct.	<b>Cooking</b> Make dirt pudding (instant chocolate pudding with Oreo cookie pieces). Include dinosaur gummies on the pudding.	<b>Outdoor/Indoor Activity</b> Play “Extinction is Forever.” Make a large game board using masking tape. Hold up 3 pictures of animals, two of which are common, and one is extinct or endangered (tiger, manatee, polar bear, dinosaur). If student identifies the extinct or endangered animal, they move on the game board.
---	--	---	---

SC.912.L.14.Pa.a

Match parts of common living things to their functions.

**Teaching Strategies**

Begin with the familiar by having students identify the function for each part of their bodies. On large board, project images of familiar animals. Have students identify the function of each visible part of animals. Show students sets of 3 pictures, two of which have a body part for a specified function. The third picture should be the distracter. For example, a mouth of a dog, human, and the shell of a turtle. Repeat for all visible body parts (legs, eyes, etc.)

<b>Technology</b> Make a PowerPoint of animal features.	<b>Crafts</b> Make bug eyes (template included in handbook) out of Styrofoam egg cartons.	<b>Cooking</b> Make Fruity Frogs (recipe provided in handbook). Talk about a real frog's features that enable it to live in its environment (powerful hand legs for jumping, web feet for swimming).	<b>Outdoor/Indoor Activity</b> Go outdoors and list animals that are seen. Look through magazines or web to find pictures of animals. Identify body parts.
--	--	---	---