

Win, Lose, or Adapt

Subject: Science

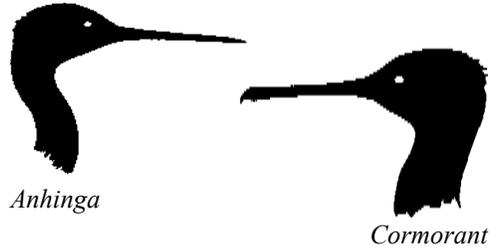
Duration: 20 - 40 minutes

Location: Classroom / Outdoors

Key Vocabulary: Adaptations

Related Activities: Build A Bird Nest; Animal Olympics; Camouflage Critters; Night Sounds

Florida Sunshine State Standards: SC.G.1.2



Objectives. The students will be able to explain what an adaptation is, and they will be able to list adaptations of ten different plants or animals.

Method. In a variation of the game “Win, Lose, or Draw” the students will try to draw pictures of adaptations so that their team can correctly guess them.

Background. An adaptation is any specialized part of a plant or animal that helps it survive. Adaptations vary depending on

your habitat. For example: the sharp bill of the Anhinga helps it spear fish, while the more rounded bill of the cormorant helps it scoop up fish (see corner profiles). Ask the students to list the three most important human adaptations: thinking brain, walking upright, and opposable thumb. To show how important our thumbs are, ask the students to untie and then re-tie their shoe laces without using their thumbs.

Materials

- Drawing board or blackboard
- White board markers or chalk
- Timer
- Blackline master “Adaptation Cards”
- Blackline master “Win, Lose or Adapt Answers”
- Blackline master “Adaptations”

Suggested Procedure

1. Copy the blackline master “Adaptation Cards” and cut them out (you may want to laminate them).

2. This game is played like the TV show “Win, Lose, or Draw.” Make two teams and place the drawing board where everyone can see it.

3. One member of the team picks a card and begins drawing until their team names the animal or plant and its adaptation. Students may not act out the word or point to an object. They must draw it.

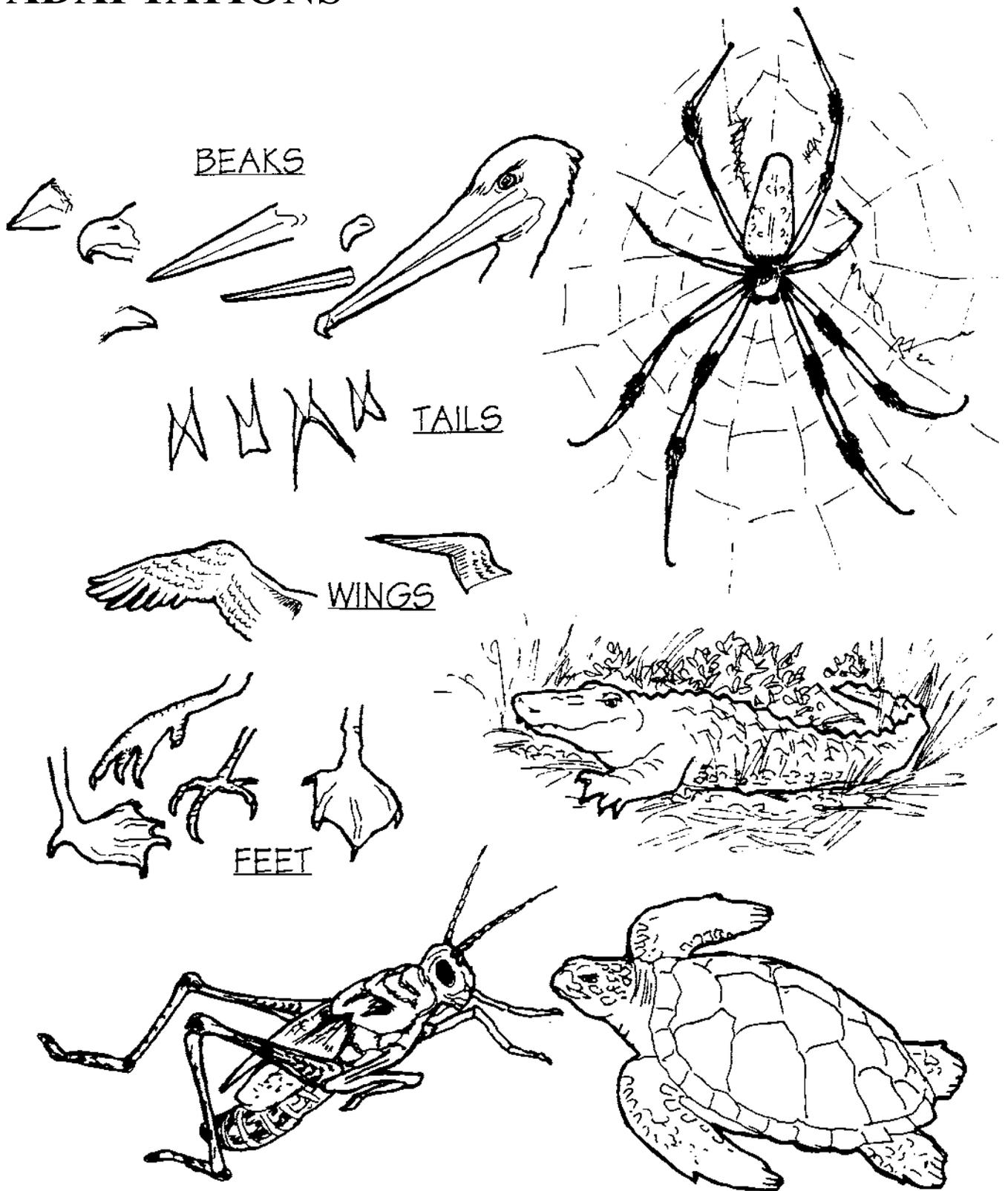
4. If the team names one of the words that is on the card (for example alligator), the person drawing may write “alligator” on the board and continue until the team gets all the words.

5. Using a timer (or second hand on a watch), record the number of seconds each student takes. Make a limit of 180 seconds. The team with the lowest time score wins. If you lack a timer/watch, just do it for fun.

Evaluation

After each time the team guesses the animal and the adaptation, have the students explain how the adaptation helps the animal survive.

ADAPTATIONS

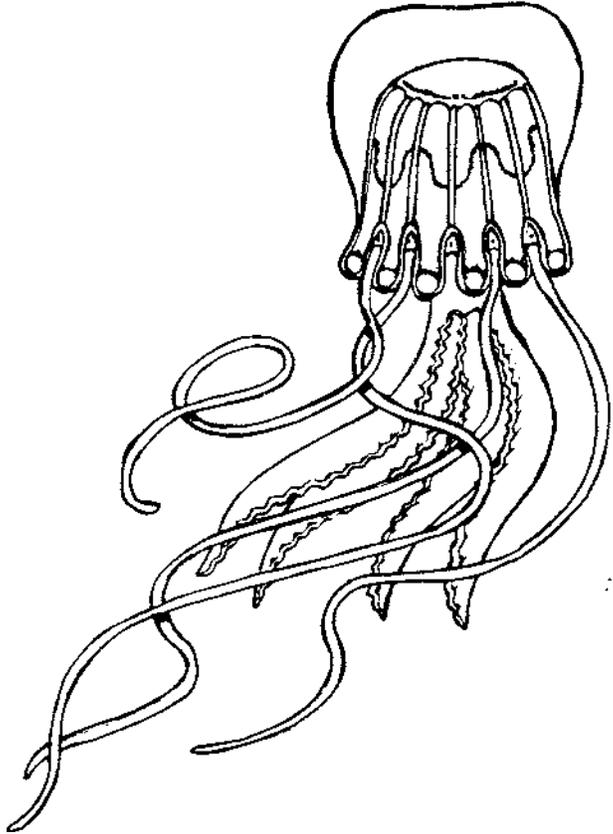


ADAPTATIONS: Special characteristics that make an organism more suited to its environment.

Adaptation Cards

ALLIGATOR TOOTH	EGRET'S LONG LEGS
CATTAIL PARACHUTE SEEDS	FROG'S HOPPING LEGS
COCOPLUM WAXY LEAVES	GRASSHOPPER ANTENNAE
CYPRESS KNEES	HERON FEATHER
DEER HOOF	HUMMINGBIRD'S LONG TONGUE
DOLPHIN FLIPPERS	IBIS' CURVED BEAK
DUCK'S WEBBED FEET	MANGROVE ROOTS
EAGLE TALONS	PANTHER CLAWS

Adaptation Cards

RACCOON PAWS	VULTURE WING
RATTLESNAKE FANGS	VULTURE'S BALD HEAD
SAWGRASS TEETH	
SLASH PINE'S THICK BARK	
SKUNK'S SMELL	
SNAIL KITE HOOKED BILL	
TREE SNAIL SHELL	
TURTLE SHELL	

Win, Lose, or Adapt Answers

Alligator Tooth - Lost or broken teeth can be replaced. An alligator may have as many as 3000 replacement teeth in a lifetime.

Cattail Parachute Seeds - Cattail seeds have a parachute just like dandelions to allow them to disperse.

Cocoplum Waxy Leaves - Waxy leaves prevent water from evaporating during the dry season. The waxy coating allows rain to run off rapidly during the wet season and helps prevent mildew and rot.

Cypress Knees - The knees provide extra support because the limestone is so close to the surface. Knees may provide oxygen to roots that are underwater.

Deer Hoof - Deer run on two toe nails which make up their hoof. The hoof helps them run fast and go through brush easily.

Dolphin Flippers - Used mostly for steering and turning.

Duck's Webbed Feet - By having webbing between its toes, the duck can swim faster and easier.

Eagle Talons - Long sharp claws on its feet are used for seizing prey and defending themselves.

Egret's long Legs - Leg length varies between species of herons and egrets, allowing each species to use a different area of a pond.

Frog's Hopping Legs - Helps them swim and escape predators.

Grasshopper Antenna - Used to smell and touch things.

Heron Feather - Used for warmth and flight. Special feathers are grown during breeding season to help attract a mate.

Hummingbird's Long Tongue - The long tongues can reach deep into a flower for nectar.

Ibis' Curved Beak - Allows the ibis to probe the mud underwater for insects and invertebrates, or catch swimming fish.

Mangrove Roots - The roots prop the mangrove up out of the water and have the ability of limiting the salt that goes into the tree.

Panther Claws - Used to hold and kill prey such as deer. Allows the panther to climb trees or dig a hole to bury uneaten food.

Raccoon Paws - Has a toe almost like our thumb. Paws used to climb trees and open campers' food chests.

Rattlesnake Fangs - The hollow fangs allow the venom to be injected into the victim.

Sawgrass Teeth - The teeth may keep animals from eating the plant.

Slash Pine's Thick Bark - The thick bark protects the pine trees from fire.

Skunk's Smell - Who would want to kill and eat a skunk?!

Snail Kite's Hooked Bill - Snails are the main food of this hawk and its bill is designed to take the snails out of the shell.

Tree Snail Shell - The shell is its home. During the dry winter the animal seals its shell against tree bark and waits for rain.

Turtle Shell - The shell is the turtle's backbone and ribs. It protects the animal from predators.

Vulture Wing - The long wings allow vultures to glide for hours without flapping.

Vulture's Bald Head - Since they eat dead and decaying animals, a bald head is easier to keep clean when

