

Embodying Science • Community • Systems
Animal Classification •



- Ask students to write down the answers to these questions on their picture paper about the animal pictured:
 - What animal are you?
 - Is it a vertebrate or invertebrate? Backbone or no backbone?
 - If a vertebrate, go through the types of vertebrates and decide:
 - Are you cold blooded or warm blooded?
 - Describe your skin? (hairy, scaly, furry, rough, wet, dry, feathers, etc.)
 - Do you have scales or a hard plate?
 - Do you have wings and 2 feet?
 - What do you eat?
 - Do you live on land or in the water?

- Now ask students to write down the 2-3 elements that make your animal apart of their classifying group.
- Now, sit like your animal sits, using your body to show the pattern and shape.
- Now give your animal a name (i.e., Sylvester the Salamander) and introduce yourself to your neighbor.

“THE ANIMAL KINGDOM CLASSIFICATION CONNECTION GAME”

- Set up 4 chairs in the front of the classroom in a line facing the audience/students.
- Today we are going to participate in a live television game show called “The Animal Kingdom Classification Connection Game” where lost animals are connected back with their loved ones.
- Ask 4 students to be the starring animals and walk up and sit in the 4 seats as their animal would travel.
- Teacher will act as the game show host and will have assistant Zoologist/students come up to help classify the animals.
- Ask one student to be the assistant Zoologist .
- Have him/her make up a name and introduce themselves to the audience using a different voice.
- Have each animal and each expert say hello to the audience using their animal voice.
- Today we are going to classify each animal on our show and get them back home! We will start by talking to one animal at a time.
- We will ask each animal some questions one at a time to help us identify it’s group of origin.
- Each expert can ask choose one of the following questions to ask each animal.

Hand host two sets of questions (one for vertebrates, one for invertebrates):

Questions:

Are you a vertebrate or an invertebrate? (NOW READ FROM THE LIST OF QUESTIONS THAT APPLIES.)

VERTEBRATE LIST:

- Are you cold blooded or warm blooded?
- Describe your skin? (hairy, scaly, furry, rough, wet, dry, feathers, etc.)
- Do you have scales or a hard plate?
- Do you have wings and 2 feet?
- What do you eat?
- Do you live on land or in the water?

INVERTEBRATE LIST:

- Do you have an exoskeleton?
- Do you have sharp spines?
- Do you have joined legs?
- Do you have a segmented body? If so, how many segments?
- Do you have wings?
- Do you have legs? If so, how many legs?

- After the questions are asked, the hosts can state their answer and the audience will ding if it’s correct and buzzes if it’s incorrect. If correct, the animal gets to do a little dance back to his/her seat.

ANIMAL FAMILIES UNITE

If time permits, have students find the others animals in their classification and go to different areas in the room. Once all groups are together go around the room and have each group chant their classification and then become their animals with sounds. Have the students tell the features that apply to their classification.

Assessment

- Students should accurately classify assigned animals and identify characteristics used in identification.
- Students should accurately act like their assigned animal when performing.

Georgia Performance Standards

SCIENCE

GRADE 5

S5L1: Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.
a. Demonstrate how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).

THEATRE ARTS

GRADE 5

TAES5.3: Acting by developing, communicating, and sustaining roles within a variety of situations and environments

National Standards

SCIENCE

NS.5-8.3: As a result of activities in grades 5-8, all students should develop understanding of:

- Populations and ecosystems
- Diversity and adaptations of organisms

THEATRE ARTS

Standard 2: Acting by assuming roles and interacting in improvisations

Standard 5: Researching by finding information to support classroom dramatizations



Idea Contributed by Susie Spear Purcell

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100 Edgewood Ave, Suite 100
Atlanta, GA 30303
Phone: 404.688.2480
Fax: 404.688.2424
www.artsnowlearning.org

Classification of Animals: “Connect Your Animal Show”

Students explore the attributes of classifying animals by physically becoming and verbally exploring an organism by looking at a photo of it. They are able to step outside of their organism personality and then become “Classification Experts” on the game show “Connect Your Animal” where they help reunite lost animals with their families. Students will use scientific inquiry to classify their own organism as well as help each game contestant classify theirs. When students go through the process of classifying each organism as if they are scientists they become experts on classification.

Essential Question: How can the process of acting increase comprehension in other subject areas?

Process:

REVIEW

What is classification and why do we classify things?

Animal Classification Order -

Kingdom, Phylum, Class, Order, Family, Genus, Species

- Kingdoms are large groups, encompassing millions of kinds of organisms each. All animals are in one kingdom (called Kingdom Animalia); all plants are in another (Kingdom Plantae).
- Species are the smallest groups. A species consists of animals of the same type who are able to breed and produce young of the same kind.

Some of the ways we classify living things include:

- Is it single celled?
- Is the nucleus in the cell?
- Does it make it's own food?
- Does it eat food?
- Does it reproduce sexually?

Vertebrate vs. Invertebrates

Vertebrates are animals with backbones, including people, dolphins, flamingos, alligators, fish, and frogs. Our vertebrate movement will be:

“ver” clap elbows to hands flat together
“te” thumbs swing out to the side
“brate” both palms touch shoulders/back

Cold blooded vs. warm blooded

Cold Blooded animals include fish, amphibians, reptiles, and all invertebrates.

Warm Blooded animals include birds and animals not in the above list.

There are 6 Vertebrate Groups:

Birds, Mammals, Fish, Reptiles, Amphibians, Arthropods (Insects and Arachnids)

BIRDS

- Animals that have two wings, two feet and are the only animals that have feathers.
- Some birds fly, some run and some swim.
- Includes blue birds, flamingos, macaws, ostriches, and chickens.

movement:
“bird” flap arms like bird wings and stop feet one at a time.

MAMMALS

- An animal that feeds milk to its young and has hair or fur on its body.
- Includes whitetail deer, squirrel, pig, dog, cat, bears, chimpanzees, dolphin, and whale.

movement:
“mam” hug your body for warmth and rub arm like fur
“mal” pretend to suck thumb

FISH

- Animals that live in water, breathe with gills, and are covered with scales.
- Includes angelfish, snapper, trout, and shark.

movement:
“fish” hands on cheeks, top of hand to cheek with fingers flayed out for gills. Purse lips together and open like fish lips

REPTILES

- Animals with rough, dry skin that may have scales or hard plates.
- Includes alligators, turtles, and giant tortoise.

movement:
“rep” cross arms and scratch skin on upper arms
“tiles” knock on top shoulders

AMPHIBIANS

- Animals with smooth, wet skin that typically begin life in the water, breathing with gills.
- They metamorphosize into an adult that lives on land, and give birth by laying eggs.

- Includes frogs, toads and salamanders.

movement:
“am” stroke cheeks with both hands
“phi” hands in front and squat like a frog
“bian” come up and stick tongue out to catch a fly then say “ribbit”

Materials

- Powerpoint review of classification
- Photos of animals representing a variety of animals, 1 per student
- Game cards with host questions

Vocabulary

Animals

many-celled organisms that do not make their own food, have no cell walls, and have no chloroplasts

Characteristic

a feature passed from a parent to an offspring (scaly skin, fins, rough skin etc)

Classification

the systematic grouping of organisms by observed similarities

Warm-blooded

animals whose body temperature is internally regulated

Cold-blooded

animals whose body temperature is not internally regulated

Vertebrate

organisms that have a series of bones joined together with a flexible material called cartilage

Invertebrate

animals that do not have a backbone

INVERTEBRATES: Cold blooded animals without backbones that includes butterfly, clam, octopus, worm, starfish, and ant.

movement:

“inver” forearms cross and sway in front of body
“te” arms out like butterfly wings
“brate” fingers at hips like octopus arms

Some Invertebrate Groups:

MOLLUSKS

- Cold-blooded animals with soft bodies; most have a hard shell.
- Includes octopus, slug, snail, squid and clam

movement:

“mol” arms crossed in front of body like cold
“lus” soft pat on upper arms
“ks” fist knock on back of shoulders

ECHINODERM

- Cold-blooded animals with bodies with rough skin and sharp spines.
- Includes sea star, sea urchin, and sand dollar

movement:

“echi” arms crossed in front of body like cold
“no” scratch upper arms
“derm” put fingers out like claws

ANNELIDS

- Cold-blooded animals with soft bodies with sections.
- Includes worms, leeches, clamworms

movement:

“an” arms crossed in front of body like cold
“ne” soft pat on upper arms
“lid” palms out front a foot apart and move from right to left (2 times)

CNIDARIANS

- Cold-blooded animals with symmetrical, sac-like bodies and true mouths; are able to eat/digest food.
- Includes hydras, polyps, jellyfishes, sea anemones, and corals

movement:

“cni” forearms together in front of body and hands swing out (symmetry)
“dar” arms bowed out around stomach
“ians” mouth moving like eating

ARTHROPODS (means “jointed leg”)

- Cold blooded animals with exoskeletons and jointed legs.
- Includes spiders, crabs, lobsters, ladybugs, centipedes, and millipedes

movement:

“arth” knock on stomach
“ro” pointer fingers half up
“pod” pointer finger all the way up and shiver

ARACHNIDS

- Arthropods with exoskeletons, 2 different body regions (head & abdomen), and 8 legs
- Includes spiders, scorpions, ticks, mites, harvestmen, and crabs

movement:

“ar” two fist on top of each other
“rach” 8 fingers open
“nid” all fingers wiggling

INSECTS

- Arthropods with 3 different body regions (head, thorax, abdomen), 6 legs attached to thorax (middle), and sometimes wings
- Includes grasshoppers, bees, butterflies, flies, beetles, and ladybugs

movement:

“in” 3 fingers open
“sect” 6 fingers coming off both sides of chest, then hands become wings

Animal Classification: WHO AM I?

- Hand out pictures of different types animals (one per student)
- Discuss how a scientist or zoologist examines animals.
- Ask students to observe their animal as if they are zoologists.
- Look at all of the animal's features so that you can properly classify this animal in the group that it belongs.
- Now, sit like your animal sits or stands.
- Move like your animal moves.
- Eat like your animal eats.
- Give your animal a name.
- On the count of 3, all at the same time, aloud to yourself, say what your animal ate for breakfast using your animal's voice, which is different than your own voice. (high or low or fast or slow)
- Sit as your animal sits.
- Now take your pencils and let's classify your animal.