

ULTIMATE GAME SHOW TRIVIA
Environmental Education Lesson
EDWARDS CAMP AND CONFERENCE CENTER

OUTCOMES:

Upon completion of the Ultimate Game Show Trivia, students will be able to:

1. Name the five classes of animals: mammals, birds, herptiles, fish and insects.
2. Explain why it is important to have a diverse animal population and how that relates to the food chain.
3. Recognize that our actions as humans effect the natural world.

CONCEPTS:

1. Each animal has its own needs, diets and behaviors that make it unique to the web of life.
2. In nature, diversity is the key to stability.

MATERIALS: Ultimate Game Show Board, trivia questions, CD player, chalkboard and props: deer, fox and beaver skulls, snake skin, cicada (insect), owl ‘wings’(ropes), two empty gallon jugs, pictures and owl costume.

SET UP

Place the Ultimate Game Show board, props and the CD player on a table. Use the props to grab the student’s attention. When the students are seated for the activity, remind them of the importance of respecting all Camp Edwards materials. Also let them know they will be able to come up to look at the items on the table when the game is finished.

Divide the class into groups (teams). Number on each team will depend on the size of the class. Ask each group to come up with an animal name for their team. List the team names on the top of the chalkboard. Use this to keep score.

RULES OF THE KINGDOM

This game is played in rounds. For each round, the group will select a different captain. The captain will select the category, discuss possible answers with his/her group and give the final answer to the game show host. (Observe to be sure all students are participating.)

The “host” will start by asking the group which category they would like. All questions are found in the Ultimate Game Show Questions box. The colors on the Ultimate Game Show board coordinate with the colors of the questions. For example, mammals are white, birds are yellow, and herptiles are green and so on. Set out the Ultimate Game show trivia board to show the students the points for each category. Mammals are worth 1 point, birds worth 3 points, herps worth 5, fish worth 7, and insects worth 9. Read the question to group #1. If group #1 gives the wrong answer, then they do not get the point(s). The rest of the groups will have the chance to be “scavengers”, or to try to answer the question. Ask group #2 and so on until the right answer is given. If none of the groups get the answer right, be sure to read the correct answer.

The commercials are to be done throughout the game. The “Game Warden” (a teacher or chaperone) will be in charge of organizing the commercials. Choose students from various teams. Different commercials will call for a different number of students; you will find this information on the commercial cards. Take the students into the porch and hand out cards for one commercial. Each commercial has cards for the script, one for each person. If the commercial has props, it will say so on the lower right hand corner. Have the student’s practice one time before performing in front of their peers.

INTRODUCTION

Tonight's entertainment will be played out in the ULTIMATE GAME SHOW. This game show is unlike all others, as it is based on the animal kingdom. Within the animal kingdom, there are five different categories, mammals, fish, birds, insects and herptiles (herptiles are reptiles and amphibians). The triangle shows the category with the corresponding points. The goal of your team is to end the game with as many points as possible. The highest scoring team will be the masters of the kingdom. Good luck!

CONCLUSION

Tonight during the ULTIMATE GAME SHOW, points were gained and lost for your knowledge about the animal kingdom. In nature, the points are animals, a balance of life and death is taking place. People who study these interactions are biologists. Biologists are scientists who have discovered about 1.7 million animals. Scientists have not named and classified all of the living animals. They think there are 3-100 million animals that are undiscovered. That's right!! 3-100 million undiscovered species! Although we have come a long way, we still have more exploring to do. It is paramount that we take the time to discover all of the unknown species before they become extinct. Of the animals known to science, half of these are insects. If you take a look at the triangle, you will see that the insects are at the bottom, representing 300,000 different species. Mammals, at the top have 5,000 different species. The breakdown looks like this:

Mammals – 5,000 species
Birds – 9,000 species
Herptiles – 10,000 species
Fish – 20,000 species
Insects – 100,000 species

Take a close look and you will see that the amount of species corresponds with the amount of points given during the games.

Why are there fewer mammals than other kinds of animal groups?

One factor is the **amount of food the animal requires**. A deer is a big mammal that will only eat plants. Therefore, a deer can only live in a place that will grow enough food for it to eat. Typically, these places are in wooded areas. Most birds on the other hand, are smaller and will eat seeds or insects. These types of food can be found in almost every habitat, in forests, prairies, marshes, deserts as well as areas that are populated by people, such as suburbs. Therefore, there are more places for birds to live because they are smaller and require food that is abundant and can be found in a variety of places.

Mammals take longer to reproduce. Deer carry their babies for over six months. In comparison, insects are capable of high rates of reproduction. Houseflies that are born in April can have millions and millions of descendants by August given that they have appropriate habitat.

Another reason is because **more animals eat insects**. For example, frogs, salamanders, birds, fish, turtles, other insects and even a few carnivorous plants will eat insects. What will eat a deer? Humans and wolves are two mammals that are able to kill and eat a deer. Since fewer animals in the food chain eat large mammals, there are fewer mammals. There needs to be a lot of insects so that other animal populations can survive.

CONCLUSION OPTION #2

Read the following poem and discuss.

If you talk to the animals,
 They will talk with you
 And you will know each other.

If you do not talk with them,
 You will not know them

And what you do not know,
 You will fear.

What one fears, one destroys.

By Chief Dan George

What do you think Chief Dan George is saying? What can you do to become more knowledgeable about animals and their role in our ecosystem?

- Keep a nature journal (spend a few minutes each day sitting outside recording observations)
- Learn more through the internet or by reading books from the library
- Visit your local state park or nature center
- Watch shows on PBS or National Geographic
- ??? (Kids may come up with other ideas)

COMMERCIALS

Water Conservation Public Service Announcement

Have student # 1 come out and say, “Welcome to the Wisconsin Network. Tonight we have a Water Conservation Public Service Announcement.”

Three other students will perform the Public Service Announcement

Student #2 Pretends to brush his teeth.

Student #3 makes sound effects of running water

Student #4 is the Hydro Hero

Student #2 Comes in turns on water.

Student #3 Makes running water noise.

Student #2 Continues to brush teeth.

Student #4 “What are you doing??

Student #2 “I’m brushing my teeth!”

Student #4 “The water is on! Did you know that you are wasting water? You are not wasting one, (hold up empty jug) but two (hold up other jug) gallons of water.

Student #2 Oh, I didn’t realize that I was wasting water!

Together all four students say: “Do your part!! Conserve H2O!!!!

Recycling Public Service Announcement

Have one student come out and say: “We interrupt your programming to bring you another Public Service Announcement.”

Student #1 comes out with an aluminum pop can in hand. After miming to drink it, he throws it on the ground and stomps away.

Student #2 is dressed as an owl. The owl comes out and picks up the trash and says, “Give a hoot! Don’t pollute! Enough energy is saved by recycling one aluminum can to run a TV set for three hours! Do your part and recycle!”

Litter Public Service Announcement

Student(s) can say alone or as a group

When on the road,
At work or play,
Please don’t litter,
Or throw us away.

If recycling bins can’t be found,
While your play games and running around,
Take us home to your recycling bin,
So we can have another life again!

ULTIMATE GAME SHOW QUESTIONS

Q) To what other animals are foxes related? Name two.
A) Wolves, coyotes, dogs.

NOTE: Give the students the skull labeled fox and then read the question.

Q) By looking at the fox skull, how can you tell what it eats?
A) Foxes have canine teeth for ripping meat.

Q) Are bats the only flying mammal?
A) Yes, flying squirrels don’t actually fly.

Q) What do bats use to locate their food?
A) Echolocation. They send out a high frequency sound, which bounces off objects to let them know where their prey is.

Q) At what time of day are bats most active?
A) At night.

Q) What special adaptations do shrews have?
A) Shrews have a keen sense of smell. They live underground, digging tunnels and searching for food (worms and bugs). As a result of living in a dark environment, they need to have a heightened sense of smell.

Q) How do shrews escape from their predators?
A) Shrews will give off a powerful odor, which the predator finds offensive.

Q) Whitetail deer have eyes on the side of their head. How does this adaptation help the deer survive?

A) By having eyes on the sides of their heads, deer can see almost all the way around themselves. This helps the deer to detect danger.

NOTE: Give the students the deer skull before you read the question.

Q) Take a look at the deer skull. By looking at the teeth, what kinds of things do you think it eats? Name 2 things.

A) Deer have flat teeth, which mean that they eat plants. Corn, acorns, berries, white pine needles, cedar trees, grasses and clover are all plants that deer eat.

Q) If a deer has small antlers, it can mean two things. Name one, two for an extra bonus point.

A) 1) Poor nutrition. If the deer has plenty of food to eat, it will get all of the nutrients it needs to produce a big set of antlers.

2) Age. Young deer are still developing their bodies and will not produce large rack. When the buck is of prime age, he will produce the largest racks of his time. As they grow older, they will start producing a smaller rack.

Q) Black bears are omnivores. What does this mean?

A) An omnivore is an animal that eats both plants and meat.

Q) Why do humans consider black bears to be nuisances?

A) Black bears will scavenge through garbage dumps. Now it is common for garbage dumpsters to have bear proof rods to keep bears out.

Q) When are black bears most aggressive?

A) When you come in between the mother and her cubs. Otherwise bears are very shy and will avoid people.

Q) For what do skunks use their front claws?

A) Skunks will use their claws to help them get food such as roots and insects.

Q) Are skunks herbivores, omnivores or carnivores?

A) Skunks are omnivores; they eat both meat and plants.

NOTE: Give the students the skull labeled beaver before reading the question.

Q) Take a look at this beaver skull, paying close attention to the teeth. Why are the teeth orange on the outside and not on the inside?

A) Beavers need to constantly chew, if they do not, their teeth will grow too much and the beaver will die. Because of this, beavers have self-sharpening teeth. The outer part of the front two teeth is made up of enamel, a hard substance (the orange part). The inner part of the front two teeth is made up of dentine, a softer substance.

Q) What will a cottontail rabbit do when threatened?

A) The rabbit will freeze until all danger has passed.

Q) Many animals prey on the cottontail rabbit. Name two mammals.

A) Wolves, coyotes, foxes, great horned owls and humans.

Q) Wolves live in packs and rely on communication for their survival. Name one way they communicate with each other.

A) 1) They howl to each other.

2) They will urinate to mark their territory.

3) They use their tail, body and facial expressions to communicate with each other.

Q) Why do wolves hunt in a pack?

A) If they work together, they can take down a large animal such as a moose or a deer. This provides enough food for the whole pack to eat. If they were to hunt on their own, it would take more energy and they would get less food for the energy that they spent.

Q) Wolves are predators, which means that they eat other animals, or prey. Why is this good for a healthy ecosystem?
A) They leave little bits of meat behind, which other animals such as ravens and foxes will eat. Mice will eat the bones that are left behind for calcium.

When wolves kill animals such as moose and deer, it keeps those populations healthy. Wolves go after the old and sick animals because they are the easiest ones to catch. This leaves the strong and healthy animals to live and reproduce.

Q) What adaptation do wild turkeys have that helps them survive?

A) Turkeys have excellent eyesight. This helps them detect even the smallest movement.

Q) What do wild turkeys eat?

A) Seeds, insects and fallen fruit.

Q) Ruby-throated hummingbirds migrate south for the winter. Why does this bird migrate?

A) Lack of food in the winter time.

Q) Owls are predators, which means they catch and eat small animals. Name one adaptation an owl has that allows it to catch its prey

- A)
- 1) Sharp talons for grasping their prey.
 - 2) Facial disks allow the owls to hear their prey move.
 - 3) Excellent eyesight helps the owl see their prey move.

Q) The great horned owl has tufts, which look like ears. In reality, these tufts are not ears. What do the great horned owls use these tufts for?

A) Great horned owls use their tufts to communicate with other owls. If the tufts are straight up, it gives the signal of "this is my territory". If the tufts are out to the side, it gives the signal of "leave me alone." If the tufts are back, it gives the signal of "be gentle with me."

Q) Barn owls are nocturnal. What does nocturnal mean?

A) Nocturnal means that the animal is active at night.

NOTE: Read the card. Then play track #1 on the bird call CD.

Q) I am small and I do not migrate. If you look around Camp Edwards and see a little black and white bird, that is me. Listen to my call. Who am I?

A) Black capped chickadee.

NOTE: Read the card. Then play track #2 on the bird call CD.

Q) I only fly at night because I am nocturnal. I have excellent night vision as the rods in my eyes help me see shapes so I can catch mice and snakes. My call sounds like this. Who am I?

A) Barred Owl

Q) What is the main thing that a robin eats?

A) Worms.

Q) Birds, like humans, need a place to live. There are three different places where birds will make their nests. Name two.

- A)
- 1) Birds will build nests on the ground.
 - 2) Birds will make their nest in side a tree trunk.
 - 3) Birds will build nests in branches of trees or other plants.

Q) The osprey is a bird that likes to hang around rivers and lakes. Why?

A) Osprey mainly eats fish, so they need to go where they can find food.

NOTE: Pick the state where you are from

Q) What is the Illinois state bird?

A) The cardinal is the Illinois state bird.

Q) What is the Wisconsin state bird?

A) The robin is the Wisconsin state bird.

Q) The common loon is a bird that is often seen on lakes in the summer time. This bird does not have hollow bones. How does this help the loon survive?

A) The loon does not have hollow bones because it dives to search for its prey. The solid bones give the loon weight to be able to dive.

Q) Sometimes the male and the female bird are a different color. Why?

A) The female usually is duller than the male. The female is the one that sits on the nest the most. Therefore, she needs to be camouflaged so that her predators can't see her.

Q) Birds have special characteristics that make them birds. Name two characteristics.

- A)
- 1) Birds have feathers.
 - 2) Birds lay eggs.
 - 3) Birds have scales on their legs.
 - 4) Birds have beaks instead of teeth.
 - 5) Most birds have hollow bones.

Q) When a bird molts, what is happening?

A) One by one, the old feathers fall out and are replaced by new ones.

Q) Turkey vultures have a black body and a bald, red head. Why don't turkey vultures have feathers on their head?

A) Turkey vultures are that, vultures. They fly high in the sky searching for their food. Turkey Vultures eat carrion, or animals that are already dead. Since they do not have feathers on their head, vultures stick their head inside a carcass to eat. Vultures do not sport feathers on their head because they can not reach to clean them.

Q) The bald eagle doesn't actually have a bald head. It has white feathers on its head, with brown feathers on its body. Many people don't know that the immature bald eagles don't look like this. Immature bald eagles are a solid brown color. How many years does it take for an eagle to get its white head?

A) It takes about four to five years.

Q) Eagles are predators. Name one adaptation that eagles have to help them catch their prey.

- A)
- 1) Eagles have awesome sight. Each eye has two retina depressions, which allows the eagle to see forwards and sideways at the same time. Humans only have one retina depression in each eye.
 - 2) Eagles have extra sharp talons. These talons are used to pluck fish out of the water or other prey off the ground. They are also used to tear the flesh of their prey.

Q) Football helmets have been around for years. Which bird gave us the idea of how to make the helmets?

A) Woodpeckers. They have a liquid membrane between the skull and the brain. This prevents the brain from being jostled and damaged, just like helmets protect our heads.

Q) What do woodpeckers eat?

A) They eat insects that they find in dead trees. Their tongue has a barb on the end and their saliva is sticky. When they are hammering away at a tree, a woodpecker is sticking its tongue into the tree and pulling out insects to eat.

NOTE: Locate the two ropes labeled owl wings. Read the question and then have one student swing both ropes, one at a time. The student should hold on to one end of the rope and swing it in a circle. This demonstration is to help the group answer the question.

Q) Owls have many adaptations that help them survive. One adaptation is that their feathers are fringed along the outside. How does this help the owl?

A) It allows the owl to fly silently. This allows them to be able to have a better chance of catching their prey.

Q) Why do owls cough up pellets?

A) They swallow their food whole. They cannot digest the hair and bones, so the bones go into a special organ called the gizzard. Once the gizzard is full, the owls will cough up pellets.

Q) Northern pike is a fish found in many lakes in North America. This fish has been able to survive because it can live in almost any environment, cold and deep or warm and weedy. Northern pike are predators. Name one thing they eat.
A) Northern pike eat smaller fish such as perch, sucker, sunfish, blue gill, minnow or smaller Northern. They will also eat ducklings, baby loons, frogs, young muskrats and leeches.

Q) How does a Northern Pike catch its prey?

- A) 1) The Northern pike uses camouflage to blend into its environment.
- 2) The Northern pike will hold still until its prey swims by and then it will attack.
- 3) The Northern pike feels the vibrations in the water to know where its prey is.

NOTE: Read the question for your state.

Q) What is the Wisconsin state fish?

A) The muskellunge, or the muskie.

Q) What is the Illinois state fish?

A) The blue gill.

Q) If you went fishing in Lake Beulah, what kind of fish would you catch? Name two.

A) Blue gill, pumpkinseed (sunfish), northern pike, muskie, catfish, crappie, large mouth bass and perch.

Q) What do fish do during the winter, migrate, hibernate or adapt?

A) Fish will adapt to the cold weather. They move to deeper warmer waters. This will keep the fish from freezing.

Q) In what type of habitat would you find a blue gill?

A) Blue gills thrive best in warm, shallow water that has weeds.

Q) In what part of the lake will a female large mouth bass make her nest?

A) The female will go to a shallow part of a sandy or gravelly based lake. She will "sweep" with her fins to make a round nest where she will lay her eggs.

Q) What is a predator of the pumpkinseed (sunfish)?

A) Walleye, pike, muskie, bass and perch will all eat the pumpkinseed.

Q) If you wanted to catch a perch, in what part of the lake would you want to drop your line?

A) In the deep part. Adult perch like water as deep as 35 feet.

Q) What special adaptation does the catfish have?

A) Whiskers or barbells. This allows the catfish to live on the bottom of lakes.

Q) Catfish have whiskers. How do the whiskers help the catfish survive?

A) The whiskers serve as a way for the catfish to feel and taste.

Q) Where is the dorsal fin located on a fish?

A) On the back of the fish.

Q) What is the life expectancy for a crappie?

A) 5 years of age.

Q) Is the crappie native to WI?

A) No, it was introduced to lakes where it was not originally found.

Q) If you were to go fishing for crappies, where would you find them biting?

A) Crappies prefer a habitat that provides a place to hide. You will find crappies around sunken logs, underwater brush piles and other places with lots of underwater vegetation.

NOTE: This question is a multiple-choice question. Please read A-E and have the students pick the correct answer.
The correct answer is high lighted.

Q) The Round Goby is an alien invader, or a fish not native to Wisconsin. Why is it not good that the Round Goby is in our lakes?

- A) 1) It eats the eggs of native fish, which results in lower numbers of native fish.
- 2) It takes nesting sites away from native fish.
- 3) It can survive in poor water conditions.
- 4) It reproduces 6 times a summer.
- 5) **All of the above.**

Q) What other fish are in the crappie family? Name one.

- A) Bluegill, pumpkinseed (sunfish), largemouth bass and small mouth bass.

Q) What does a large mouth bass eat? Name one thing.

- A) Other small fish, frogs, crayfish, and large insects.

Q) What type of environment does a large mouth bass like?

- A) Large mouth bass like shady, weedy areas.

Q) What special adaptation do monarch butterflies have?

- A) The coloration of the monarch butterfly tells birds that it is poisonous.

Q) Why are praying mantises found throughout the United States?

- A) Praying mantises will eat any insect that is small enough for the praying mantis to catch. Since the praying mantis eats a variety of insects, it is able to live any where from deserts to tropical rain forests.

Q) When threatened, what will a praying mantis do?

- A) It will strike with its long spiny forelegs.

Q) How do bees inform others where they can find nectar?

- A) They 'dance' in front of the beehive. This tells the other bees where to go.

Q) What is one difference between a moth and a butterfly?

- A) 1) Butterflies have clubbed antennae while moths have hairy antennae.
- 2) Butterflies form chrysalises while moths make cocoons.
- 3) Butterflies fly during the day while moths fly at night.

Be careful! Both butterflies and moths have bright and dull colorings.

Q) Many different insects have an exoskeleton. What is an exoskeleton?

- A) The exoskeleton is a skeleton on the outside. It protects the insect's organs.

Q) Insects have spiracles. What is a spiracle?

- A) The spiracles are holes in the insect's abdomen that allow it to breath.

NOTE: Read the question that pertains to your state.

Q) What is the Wisconsin state insect?

- A) The honeybee.

Q) What is the Illinois state insect?

- A) The monarch butterfly.

Q) True or false, all spiders produce silk?

- A) True. Even if spiders don't spin webs, they produce silk. When they are young, they will use the silk to travel their new home.

Q) On hot summer days, you can often hear a loud buzzing noise coming from the trees. What insect makes this noise?

- A) The cicada.

NOTE: Locate the cicada. Hand it to the students before you read the question.

Q) Take a look at this cicada. What do you think it eats?

A) Even though its mouth looks like it could give a painful bite, it does not eat. Adult cicadas do not need to eat because they only live for a few weeks.

Q) Are gypsy moths native to WI?

A) No, they are not native to WI or the United States. A scientist brought the gypsy moth here from Russia. The gypsy moth accidentally got away from him, and now it has spread throughout the United States.

Q) The monarch butterfly migrates to Mexico. Why?

- A) 1) There is a lack of food for this butterfly in the wintertime.
2) It is too cold for the monarch eggs and caterpillars to survive for the winter.

Q) Scientists classify animals so that they can have a way to talk about them. Spiders belong to the class of Arachnida. Name one other group of insects in this class. Name two for extra bonus points.

A) Scorpion, mites, ticks, daddy long legs (or harvestmen).

Q) Many people think that all spiders have very long, very hairy legs. A close look reveals a great variety of legs, short, long, thin, thick, hairy, which all serve different purposes. For spiders that have long hair on their legs, what purpose does it serve?

A) They help the spider feel. This is important on the web as the spider feels when its prey hits the web.

Q) Lightning bugs or fireflies are easy to see on a warm June or July night. How do males and females communicate with each other?

A) With flashes. Males fly and flash while females sit and signal.

Q) If you have spent time in a forest, chances are that a female mosquito has bitten you. Yes, that's right, only the females bite. Why?

A) The female's need the protein found in the blood to allow them to lay eggs.

Q) Don't let the bedbugs bite is a common phrase that you have heard. Bedbugs actually do exist. What do they eat?

A) Bedbugs eat blood from humans or animals. Not to worry, bedbugs are uncommon in the U.S.

Q) Ants are extremely strong. How much weight can they lift in comparison to their bodies?

A) Ants can lift 10-20 times their body weight. They will work in teams to move extremely heavy things. That is like an average person lifting a small car.

Q) Each animal has special adaptations that help it survive. Name one adaptation of a roach. Hint, roaches are insects.

- A) 1) Compound eyes. This allows it to see all the way around its body.
2) Hairs on leg – gives the insect a heightened sense of touch.
3) Antennae- helps the insect smell.
4) Cerci – these are hairs that are located on the rear of the cockroach. The hairs help the insect detect motion.
5) Saliva glands- allows the roach to spit.

Q) MMM! MMM! Honey tastes sweet and is good to eat. Honey bees are responsible for making it. Why do honey bees make it?

A) Honey bees make it to eat and to feed to the larvae.

Note: The following is a multiple choice question. Please read all of the options out loud to the students. The correct answer is highlighted.

Q) Butterflies are colorful insects that can easily be found during the summertime. What do they eat?

- A) 1) They drink nectar from flowers.
2) Butterflies can be found on dung. They are getting nutrients and minerals.
3) They drink tree sap.
4) All of the above.

Note: The following is a multiple choice question. Please read all of the options out loud to the students. The correct answer is highlighted.

Q) Butterflies fly during the day. What do they do at night?

- A) At night the butterfly will find a place to sleep. They will search out different places.
- 1) They will perch under leaves.
 - 2) They will find a place in a grassy area where they can be in between blades of grass.
 - 3) They will crawl into crevices between rocks.
 - 4) **All of the above.**

Q) How did the praying mantis get its name?

- A) By the way it sits.

Q) Dragonflies are fast flying insects that are usually found around water. They have a long body with clear, thin wings. They eat pesky insects that we humans don't like. Name one insect that it eats.

- A)
- 1) Mosquitoes. One captured dragonfly was found to have 100 mosquitoes in its mouth.
 - 2) Midges (small insects)
 - 3) Smaller dragonflies.
 - 4) Butterflies.
 - 5) Moths.

Q) During the spring, summer and fall at Camp Edwards the chirp of the black field cricket can be heard. It can hear, but it does not have ears like we do. Where are the 'ears' located on a black field cricket?

- A) The black field cricket has two ways of hearing.
- 1) They have two tail-like projections that grow toward the rear. These feelers or cerci, help the cricket feel vibrations and other movements.
 - 2) Crickets have small elongated openings below the knees that are like our ears.

Q) When crickets are threatened, what will they do?

- A) Jump!

Q) Praying mantis is an insect. Is it a carnivore, a herbivore or an omnivore?

- A) They are carnivores.

Q) When insects molt, what is happening?

- A) When an insect molts, it is losing its exoskeleton. This exoskeleton is hard, and cannot expand with the insect as it grows.

Q) The common housefly does not have any teeth. How does it eat?

- A) The housefly will regurgitate saliva on what it wants to eat. This makes its food liquid. After that has happened, the housefly is then able to suck it up.

Q) Houseflies can be very annoying to humans. What is the predator of the housefly?

- A)
- 1) Humans use fly swatters, bug spray and fly tape.
 - 2) Spiders catch flies in their webs and eat them.
 - 3) Hornets kill and eat flies.

Q) The Ladybug beetle is not native to North America. People intentionally brought it here. What was the reason ladybug beetles were brought to the United States?

- A) Ladybug beetles were introduced to eat the aphids, which were attacking the trees, causing the tree to die.

Q) The queen bee is responsible for starting to build a nest. What will she use to build the nest?

- A) She will use dry wood. In chewing up the wood, she produces a lightweight material to build the nest.

Q) Insects have a tough life. They are a favorite food of a variety of mammals and birds. Name one way, or adaptation, an insect has to help it survive.

- A) 1) Camouflage – some insects blend into their environment.
 2) Mimicry – some insects have developed to look like a different species. By doing this, they are tricking their prey into thinking that they will sting or taste bad. For example, the viceroy butterfly looks very similar to a monarch butterfly. Monarch butterflies taste bad to birds.
 5) Spines – caterpillars of butterflies and moths have spines to look unappealing to birds.

Q) When the cold of winter settles in, we dress warmer and turn up the heat. How do insects deal with the cold? Name one way.

- A) 1) Migrate. The monarch butterfly flies all the way to Mexico.
 2) Hibernate. The queen bee of a hive will hibernate to survive. The rest of her colony will die once the cold sets in.
 3) Die. Many insects are not equipped to handle the cold.

Q) For us humans, we are babies, and then we grow to be children and then teenagers and finally adults. Insects go through different life stages as well. However, in their life stages they can look totally different from one stage to the next. What are the names of the stages that they go through?

- A) Egg, pupae, larvae, adult.

Q) How do certain insects, such as butterflies and bees, help plants?

- A) They pollinate the plants. This allows the plant to reproduce and grow again. With out these insects pollinating plants, we would not have fruits, flowers and some vegetables.

Q) Toads and frogs are different. Name one way they are different.

- A) 1) Toads have drier skin than frogs.
 2) Toads hop, frogs jump.
 3) Toads will puff themselves up to scare off enemies. Frogs do not.

Q) True or false, touching a toad will give you warts?

- A) False. When a toad is threatened, it will give off a mucous. Some people are allergic to this mucous and will react. The reaction produces bumps on the person's skin.

Q) How do snakes eat large prey?

- A) They are able to unhinge their jaws in order to swallow the prey.

Q) Amphibians don't drink. How do they get their water?

- A) They 'drink' through their skin.

Q) How did the fox snake get its name?

- A) When threatened, the fox snake will emit an odor, which smells like a fox (it is a musky smell)

Note: This is a multiple choice question. Please read all options to the students. The correct answer is highlighted.

Q) Where would a fox snake make its home?

- A) **1) In old tree stumps or under logs.**
 2) In shallow water.
 3) In a cool, wet cave.

Q) When speaking about turtles, scientists use the word carapace. What part of the turtle's body are they talking about?

- A) The top part of the shell.

Q) Name two characteristics of an amphibian?

- A) 1) Have moist skin.
 2) Can breathe through their skin.
 4) Lay their eggs in water.
 5) Are cold blooded.
 6) Have no toenails.
Examples: frogs, salamanders and newts

Q) Name two characteristics of a reptile.

- A) 1) Have scaly skins
 2) Are cold blooded.
 3) Have toenails.
 7) Shed their whole skin at once.
 8) Live on land and in the water.
Examples: turtles, snakes and lizards

Q) Amphibians mate in the early spring, just after the snow is melting. This snowmelt causes areas such as wetlands and low areas to fill up with water. Amphibians will go to these places to mate. Why?

A) Wetlands and low areas lack fish, which eat both the amphibian and amphibian eggs. Also, amphibians lay their eggs only in water.

Q) How do amphibians protect themselves from predators or harm?

A) They will hide under rocks, logs or underground.

Q) What is a predator of frogs?

A) Snakes, birds, mammals, reptiles and fish all eat frogs.

Q) What do frogs do in the winter?

A) During the winter, frogs actually freeze. They lower their body temp to 32 degrees. When this happens, they produce a chemical similar to anti-freeze. This allows them to have a low metabolism rate while not freezing to death. When the weather warms up, they will “unthaw”.

Q) Painted turtles are commonly found in WI. In this species, the female is larger than the male. Why?

A) The female needs room in her carapace, or shell to produce the eggs.

Q) How can you tell the age of a turtle?

A) By the number of rings it has on a scale. Each ring equals a year.

Q) What helps snapping turtles capture their food?

A) Camouflage. The snapping turtle will blend into the bottom of the lake and wait for its prey to swim by.

Q) What will most turtles do when threatened?

A) Most turtles will pull their arms, legs and head into its shell. Different species, such as snappers do not.

Q) Turtles have beaks that are similar to birds. How does this help them survive?

A) The beak helps them grab and slice their food.

Q) Lizards have scaly skin, which makes them a reptile. Scales have many functions that help the lizard survive. Name one function.

- A) 1) Scales help the lizard get warmth from the sun.
 2) Scales help the lizard retain water.

Q) What do lizards eat?

A) Insects such as crickets, grasshoppers and beetle larvae.

Q) What will a lizard do if it is threatened?

A) It will run and hide under logs, rocks or in burrows.

Q) If a lizard is attacked, what will it do to avoid danger?

A) It will lose its tail. The lizard will grow the tail back, however, it will not be as long or have the same color as the original tail.

NOTE: Locate laminated snake skin and give to group.

Q) Snakes shed their skin. Take a look at this shed. Why do snakes sometimes eat their old skin?

A) It has vitamins and nutrients.

Q) Snakes use their tongues to survive. What will the snake use its tongue for?

A) To locate food.

Q) What do garter snakes eat? Name two animals.

A) Frogs, earthworms, salamander larvae, tadpoles, fish and beetles.

Q) Snakes catch and eat their prey in three different ways, swallowing prey alive, constriction (squeezing), or injecting venom. The red-bellied snake is common here in WI. How does this snake catch its prey?

A) The red-bellied snake will catch and swallow its prey alive.

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