

Name _____

A Forest Secret

Until recently, saolas remained one of Earth's best-kept secrets. Upon discovering this animal in the wild, scientists just as quickly recognized this unique species as endangered. Immediate steps are being taken, in the form of establishing national parks, to ensure the survival of the species.

Villagers in Vietnam and Laos have spotted saolas only on rare occasion. Although saolas physically resemble miniature antelopes, DNA testing confirmed they are a separate species, previously unknown to mankind. Biologically, saolas are related to cows and bison. Their name means "spinning wheel posts," referring to the animals' long horns that sweep back over the neck. Their most distinguishing feature, aside from the horns, are massive scent glands in their cheeks. Saolas mark their territory with musk from these glands. Scientists are uncertain exactly how many of the animals exist today.

Nearly twenty years ago, an adult female was captured and sent to a zoo in Laos. The saola stood about waist-high with 18-inch horns. This interesting mammal appears to have little fear of humans and was observed to be approachable in zoo settings. Their reaction to dogs, however, gives a clue as to possible predators. Unfortunately, observations of saolas have been limited, as those captured have died shortly thereafter. Causes of each death have not been fully determined, although at least two have succumbed to infection.

Scientists disagree as to the best course of action for saving saolas. Some believe that leaving the saola alone to roam the few remaining patches of their native habitat—wet evergreen forests—will ensure their survival. Others argue for a more direct approach, such as captive breeding. Either way, if saolas become extinct, it will represent another failure in protecting Earth's fragile ecosystems.

Text Questions

1. What is the main idea of the last paragraph?
 - a. It provides examples of keeping a saola in captivity.
 - b. It offers ways to save saolas.
 - c. It describes how saolas are unique.
 - d. It gives a description of the saola's appearance.
2. What does the word *distinguishing* mean as it is used in the second paragraph?
 - a. different
 - b. separated
 - c. infamous
 - d. unknown
3. Why is this passage titled "A Forest Secret"?
 - a. Saolas were not known about until recently.
 - b. Saolas are a unique species.
 - c. Saolas are afraid of dogs, but scientists do not know why.
 - d. Saolas are endangered.
4. Which information about saolas is not included in the passage?
 - a. their habitat
 - b. their appearance
 - c. their diet
 - d. their possible predators
5. What are some reasons scientists might want to keep saolas from becoming extinct?

Name _____

Animal Intelligence

Did you know that animals can spy and retrieve information? People have trained animals to perform useful tasks, do entertaining tricks, and provide information as spies during wartime.

Often, the techniques and principles used to train animals for useful tasks have their roots in behavioral conditioning, as first described by B.F. Skinner. Subjects are trained to do things voluntarily based on cues in the environment. Rewards or consequences shape the likelihood of repeated behavior in the future. In classic experiments, animals learn to associate an action with a reward.

During the Cold War, ravens were trained to deposit and retrieve objects. The birds could recognize characteristics of objects and would be instructed accordingly. For example, a raven could be taught to always fly to a large or small table. Ravens are also able to carry quite a bit of weight, so they could transport objects that contained a message.

Intelligence agencies have also experimented with training cats. In one such instance, each feline was fitted with a wire, battery, and instruments to create a transmitter. While directing the cat remotely with ultrasonic sound, operators could eavesdrop on critical communications.

Advocates of such programs cite animals' low profiles as a benefit. People are less likely to pay attention to an animal arriving and leaving. In addition, animals can get into places people can't. On the downside, animals require ongoing training, care, and maintenance.

The details of specific intelligence programs actually put into use are relatively unknown. Many documents and records are classified information or have since been destroyed. It's safe to say, though, that studies in animal training for intelligence and security tasks continue. K-9 dog police units are one such example.

Text Questions

1. What is the main idea of the second paragraph?
 - a. It describes the types of animals that are used as spies.
 - b. It explains the principles used to train animals for intelligence work.
 - c. It states the reason the author wrote the article.
 - d. It states the author's conclusion.
2. Which animals are not mentioned in the article as potential subjects for animal intelligence tasks?
 - a. birds
 - b. cats
 - c. dogs
 - d. rats
3. What does the word *associate* mean as it is used in the second paragraph?
 - a. to be a companion with
 - b. to connect in your mind
 - c. to be a member with less than full status
 - d. to ignore
4. What is one benefit of using animals for intelligence work?
 - a. They can come and go without attracting attention.
 - b. They require training.
 - c. They need care and maintenance.
 - d. They can understand critical communications.
5. How do we use trained animals today? Give examples and evidence to support your answer.

Name _____

Long-Distance Travelers

Arctic terns migrate farther than any other animal on the planet. They travel from their native habitat in the Arctic to Antarctica and back. During the migration season, terns nest in open tundra, rocky beaches, and boreal forests along the Pacific and Atlantic coasts. They have been observed migrating south along the coast of South America and as far south as New Zealand and Australia. They winter in the northernmost part of Antarctica. Arctic terns may migrate as far as 25,000 miles round trip every year!

How did researchers track such long-distance migratory routes? They attached locaters to terns in Greenland and discovered the birds flew south along the coast of Africa in the fall, spent winter on the north coast of Antarctica, and then returned to their Arctic habitat in the spring. Given a life span of about thirty years, this adds up to over one million miles traveled in

a tern's lifetime. That's the equivalent of three trips to the moon and back!

Researchers find it difficult to observe and study Arctic terns due to their remote habitats. Scientists have learned a few things, though. Terns hover in mid-air before plunging into the water to catch fish. Occasionally, they may steal fish from other birds in mid-flight.

Along with many other species, Arctic terns will be affected by possible global warming. They winter on pack ice in the Antarctic and rely on Arctic ecosystems for breeding, habitat, and feeding. During the winter, they molt and lose most of their feathers. If feathers are lost faster than they can be replaced, the birds are rendered flightless for a time. Perhaps this is nature's way of giving them a rest before they make the long trek back north for the summer breeding season.

Text Questions

1. What is the main idea of the text?
 - a. how global warming will affect Arctic terns
 - b. the migratory routes and patterns of Arctic terns
 - c. why scientists study Arctic terns
 - d. to compare Arctic terns to other birds
2. Which title would be a good alternative for this text?
 - a. "Breeding Habits of Arctic Terns"
 - b. "All About Arctic Terns"
 - c. "The Longest Flight"
 - d. "Fishers of the Arctic"
3. What does the word *remote* mean as it is used in the text?
 - a. distant
 - b. wireless
 - c. temperate
 - d. tropical
4. Which statement from the text best describes the migratory route of the Arctic tern?
 - a. They travel from their native habitat in the Arctic to Antarctica and back.
 - b. This adds up to over one million miles traveled in a tern's lifetime.
 - c. The birds flew south along the coast of Africa in the fall.
 - d. Arctic terns will be affected by possible global warming.
5. How can learning about the migration routes of Arctic terns benefit people?

Name _____

The Jumping Spider

Nature photographers have captured on film a spider jumping from one flower to another. Using its large eyes, the jumping spider follows its prey. Then, the jumping spider set its sights, spins out a “safety line,” and jumps.

A common variety in the United States, the Daring Jumping Spider makes its home in woods, fields, and gardens. Its distinctive, big-eyed appearance makes it easy to recognize. Four of its eight eyes are located on its face, and the other four are on top of its head. The spider is black with gray or white stripes, and it has spots on its abdomen.

Jumping spiders feast on a variety of insects, as well as other spiders. Some varieties climb as well, giving them

a wide range of potential prey. These arachnids do not build webs to catch prey. They hunt on foot by sneaking up and pouncing on their victims. Even though jumping spiders only grow to be between one-quarter and one-half inches long, they can leap amazing distances for their size. Additionally, their excellent eyesight makes them very accurate. Jumping spiders are also one of the fastest arachnids. Scientists claim they are very smart.

In addition to using silk for safety lines when jumping, jumping spiders also use this thread to create shelter under leaves and to encase eggs until hatching.

Insects should be wary of this spider without a web that can stealthily approach, keenly observe, and leap.

Text Questions

1. Why does the author say these spiders are distinctive?
 - a. They have large eyes to observe their prey.
 - b. They spin out a line to construct a web and catch prey.
 - c. They enclose their eggs in a silk sack.
 - d. They create a shelter under a leaf.
2. Which is a synonym for the word *stealthily* as it is used in the text?
 - a. awkwardly
 - b. unreliably
 - c. privately
 - d. slyly
3. Which paragraph gives details about the spider's jumping abilities?
 - a. the first paragraph
 - b. the second paragraph
 - c. the third paragraph
 - d. the fourth paragraph
4. Which title would be a good alternative for this text?
 - a. “The Spider Without a Web”
 - b. “Life Cycle of the Jumping Spider”
 - c. “A Beautiful Web”
 - d. “Ready, Set, Jump!”
5. Describe what makes the jumping spider's tactics so effective. Use evidence from the text to support your answer.

Name _____

Swimming with the Turtles

Imagine swimming through refreshing ocean waves with a graceful prehistoric animal. Many people hope to do just this when they snorkel off the shores of the tropical islands where green sea turtles make their home.

The Hawaiian sea turtle (or “Hono”) is a symbol of peace and good luck to the Hawaiian people. Out of respect for this ancient creature, laws have been enacted to protect them. It is illegal to touch or harass them.

Green sea turtles have smooth shells with shades of black, brown, gray, green, or yellow. The soft bottom shell is yellowish-white. So why are they called green sea turtles? The largest of all hard-shelled sea turtles, green sea turtles feed exclusively on plants, such as seaweed and algae. Scientists believe their diet contributes to their green fat, for which they are named. They are the only herbivorous marine turtle.

Habitats of green sea turtles include nesting beaches, the open ocean, and coastal areas for feeding. Females return to the same beaches where they were born to lay their eggs. Hatchlings swim to offshore areas for feeding for several years. Once they reach a certain age, they return to coastal areas to live as adult sea turtles.

Green sea turtles are not overly fearful of people, although they can swim up to 35 miles per hour to escape perceived danger. They are endangered in many areas of the world due to the harvesting of eggs and adult turtles. Turtles also face the danger of becoming accidentally trapped in gillnets and other fishing gear. They are subject to a disease that causes tumors that interfere with the animals’ swimming, vision, feeding, and ability to escape from predators.

Ongoing research and legislation seek to ensure that green sea turtles will remain part of the tropical ecosystem for many years to come.

Text Questions

- Which context clue from the text helps define the meaning of *herbivorous*?
 - Laws have been enacted to protect green sea turtles.
 - They return to coastal areas to live as adult sea turtles.
 - Green sea turtles feed exclusively on plants.
 - Hatchlings swim to offshore areas for feeding for several years.
- Which pair of words from the text best describes the author’s opinion of green sea turtles?
 - tropical, endangered
 - harass, escape
 - fearful, prehistoric
 - graceful, respected
- What is the main idea of the second paragraph?
 - Treat green sea turtles with respect.
 - Green sea turtles are endangered.
 - It describes details about the turtles’ habitat.
 - It describes the life cycle of a green sea turtle.
- Which of the following is not an example of a threat to green sea turtles?
 - Green sea turtles can swim up to 35 miles per hour to escape perceived danger.
 - People harvest turtle eggs and adult turtles.
 - Green sea turtles can become trapped in gillnets and other fishing gear.
 - Green sea turtles are subject to a disease that causes tumors.
- What can people do to protect sea turtles and other endangered species?

Name _____

The Rare Dolphin

We don't always think of dolphins as being a rare species; however, the Chinese River Dolphin is considered by scientists to be the rarest of all marine mammals, to the point of possibly being extinct.

This rare dolphin makes its home in the freshwater of the Yangtze River. Its low dorsal fin and light color have given it the alternate name of "white-flag dolphin." As with other species of river dolphins, it originally came from the ocean.

Decreasing numbers have made this species of dolphin difficult to research and study. The dolphins are shy and do not expose much of themselves when surfacing for air. They feed mostly on freshwater fish. Due to the murky waters of the Yangtze, they rely on sound for feeding, orientation, and communication. Based on studies of similar species, scientists think the Chinese River Dolphin uses two main types of sounds: clicks and whistles. They use the clicks for navigation and identifying prey. Whistles are used for communication.

Currently, its habitat is limited to the Yangtze River in China. Habitat loss due to development along the river has further reduced its range. River development includes the construction of dams and other water management devices along the river. This affects the dolphins' movements within the river ecosystem. Fish resources have also declined.

Reserves have been established for the preservation of the species. However, these attempts do not prevent accidental deaths. Little, if any, effort has been made to breed the dolphins in captivity.

A survey team conducted an extensive study in 2006 using visual and acoustic measures. They failed to locate any individual animals within the species' range. The National Marine Fisheries Service has concluded that the Chinese River Dolphin may now be extinct.

Text Questions

- Which of the following threats to Chinese River Dolphins is specifically mentioned in the passage?
 - river development
 - entanglement in fishing gear
 - pollution
 - underwater explosions
- Which is a synonym for the word *declined* as it is used in the text?
 - settled
 - rejected
 - decreased
 - failed
- Which statement from the text provides the best explanation for why scientists have difficulty researching the Chinese River Dolphin?
 - Habitat loss due to development along the river has further reduced its range.
 - The dolphins are shy and do not expose much of themselves when surfacing for air.
 - Due to the murky waters of the Yangtze, they rely on sound for feeding, orientation, and communication.
 - They use the clicks for navigation and to identify prey.
- What is the probable current status of the Chinese River Dolphin?
 - common
 - threatened
 - endangered
 - extinct
- How might the extinction of this species of river dolphin affect people?

Name _____

Blue Dragons

Do dragons exist today? Although often dismissed as a mythical creature, we actually live among several different types of “dragons.” For example, you may have seen a dragonfly hovering in a summer garden or read about a Komodo dragon lizard. The ocean has its share of dragons, too.

The blue dragon is a marine snail without a shell. It is commonly known as a blue sea slug. This particular species of marine snail can swallow a bubble of air (which it holds in its stomach) that enables it to float upside down on the surface of the ocean. The underside of the slug is blue, and its back is a grayish color. This helps to conceal it from birds flying overhead and from fish swimming below.

Blue dragons feed on poisonous man-of-war jellyfish and other similar species. When food is scarce, they will eat each other. They collect toxins from the jellyfish and store it in many finger-like structures. This ability to store poison gives them a much stronger sting than the jellyfish itself. They use this poison as a defense against predators. The sting can also be felt by people.

These creatures are rarely visible for study and observation except for when they approach land during times of onshore winds. They have been sighted in Hawaii and in tropical waters around the world. Beware of the blue dragon’s sting!

Text Questions

1. What is the purpose of the first paragraph?
 - a. to give details about the topic
 - b. to introduce the subject
 - c. to introduce the author
 - d. to give examples of mythical monsters
2. What is the blue dragon’s main defense against predators?
 - a. It floats upside down in the water.
 - b. It stores poison and stings predators.
 - c. It feeds on poisonous jellyfish.
 - d. It moves to coastal waters during times of onshore winds.
3. What does the word *conceal* mean as it is used in the text?
 - a. discover
 - b. reveal
 - c. protect
 - d. hide
4. How does the coloring of the blue sea slug provide camouflage?
 - a. It floats right side up so the blue faces down in the water.
 - b. Its blue coloring makes it blend in with ocean waves.
 - c. The blue blends in with the ocean as seen from above, and the gray blends in with the ocean as seen from below.
 - d. It squirts blue poison into the water to conceal it from predators.
5. Why do you think this animal has the word *dragon* as part of its name?

Name _____

Pippi

Pippi, a golden retriever and Labrador retriever mix, lives a life of purpose. Her meticulous training is called into action daily by Micah Nash and his parents, Andy and Heather Nash.

On one particular day, Micah dropped to the floor and stared at the ceiling of a small grocery store in Missouri. Heather commanded Pippi to “nudge.” Immediately, Pippi used her nose to remind Micah to stand up and resume his position at her side. Micah laughed as he got up and again grasped his part of Pippi’s leash.

Why is a dog in a grocery store? Pippi is not a pet dog. She is a skilled companion dog, trained by Canine Companions for Independence. Her job is to assist Micah in dealing with his autism. She wears a blue and gold vest proclaiming her status as a service dog whenever she is in public.

People often ask to pet her. Pippi is trained to take the attention in stride, responding promptly to Heather’s commands. Heather answers most questions now, but

in the future, Micah will be given more opportunities to interact verbally with the people around him.

One of Pippi’s duties is to accompany Micah to restaurants. She curls into a ball under his table, ready to help Micah focus on the world around him. At the command “visit,” she will lay her head in Micah’s lap. This grounds him in the reality of the present.

During every family outing, Micah will increase his hard-earned verbal skills by giving Pippi commands, such as “sit” and “down.” But Pippi’s job doesn’t end when the family goes home. Over time, Micah will become more responsible for Pippi’s care. This will help him expand his conversation skills with peers and family.

When Pippi is “off duty,” Micah and his brother chase her wildly through the house. And Pippi, released from her duties, behaves like any dog loved by two rambunctious boys.

Text Questions

- What does it mean to say that Micah will *resume* his position at Pippi’s side?
 - He will start walking again.
 - He will take his place next to her again.
 - He will summarize what he is supposed to say to her.
 - He will continue to lie on the floor.
- What is the theme or moral of the text?
 - how to train a Labrador retriever
 - what it is like to have autism
 - why service dogs are allowed in public places
 - how trained dogs can help people with autism
- Which of the following is not a place where Pippi will likely be on duty for Micah?

a. in the car	c. at the store
b. at home	d. at a restaurant
- Which statement from the text shows one way in which Pippi interacts with Micah?
 - Pippi lives a life of purpose.
 - Pippi uses her nose to remind Micah to stand up and resume his position at her side.
 - She wears a blue and gold vest proclaiming her status as a service dog whenever she is in public.
 - Pippi is trained to take the attention in stride, responding promptly to Heather’s commands.
- Based on what you read, what is one part of his life in which Pippi will assist Micah?

Name _____

Nature's Helicopters

Nature offers spectacular examples of "true flight." This refers to the ability to lift and hover above the ground without forward motion to provide these forces. People have long been intrigued with the concept of vertical flight, and as we've observed the hummingbird and the dragonfly, we've been able to develop technology (such as the helicopter) that mimics their behavior. The hummingbird hawk-moth is another animal that has the same flight dynamics.

Although this moth gets the first part of its name from its flight patterns, it resembles a hummingbird in other ways as well. The moth has a long, straw-like mouth, which it uses to gather nectar from flowers. While hovering, it emits an audible humming noise. Its constant wing movement requires large amounts of food, similar to hummingbirds. Hummingbird hawk-moths keep track of flowers they have already visited. This conserves energy since the moth doesn't return to empty flowers. The need for calories is so strong, they

may even feed while mating. As the second part of this animal's name implies, it is a moth, not a bird. As an insect, it pollinates various garden flowers such as honeysuckle.

The hummingbird hawk-moth is native to warm climates. It makes its home in parts of Europe, North Africa, and Asia. It is a strong flier, particularly during the summer months. The moth does not tolerate cold weather well, and adults typically spend winter in crevices of rocks, trees, and buildings. Although in a different group, a similar moth known as a "bee moth" can be found in various parts of North America.

Hummingbird hawk-moths have good vision and are able to learn colors. The moth has the ability to fly during the day, at dawn and dusk, and even in the rain.

As we continue to study these unusual creatures, there is the potential for even more technological developments and benefits to humans.

Text Questions

1. According to the text, what characteristics are found in "true flight"?
 - a. The animal or craft flies in a straight line.
 - b. The animal or craft requires large amounts of fuel.
 - c. The animal or craft has the ability to lift and hover above the ground without forward motion to provide these forces.
 - d. The wings of the animal or craft move constantly.
2. What does it mean to say the moth *emits* a humming noise?
 - a. It utters words.
 - b. It transmits a signal.
 - c. It puts into circulation.
 - d. It gives off sounds.
3. Why do the moths require such large amounts of food?
 - a. Their wings are in near constant motion.
 - b. They do not tolerate cold weather well.
 - c. They migrate long distances in the winter.
 - d. They do not eat very much at one time because their mouths are small.
4. What is the text structure in the second paragraph?
 - a. cause and effect
 - b. problem solution
 - c. descriptive
 - d. compare and contrast
5. How has observing nature helped humans develop new technology?

Name _____

The African Generuk

Giraffes aren't the only animals with long necks. The African generuk's name means "giraffe-necked" in the Somali language. They stand on their hind two legs and extend their necks to reach leaves on tall shrubs. They also use their front legs to pull down branches. This enables them to feed from bushes six to eight feet in height. The generuk's diet consists of leaves from thornbushes. They also eat buds, flowers, fruit, and climbing plants. They do not require water as they get all the moisture they need from their food.

The generuk has a small head with large eyes and ears. Males have stout, ringed horns. Related to gazelles, they have scent glands in front of their eyes and on their knees. They use the glands to mark territory.

Small groups of female generuks may live together with their young or with unattached males. Females range over a territory of one to two miles, traversing the

males' territory. Fawns are born in thickets apart from the group. The mother keeps the fawn hidden for a time. She leaves to feed but returns for nursing. The mother removes scents that would attract predators by cleaning or eating the fawn's waste.

One way that generuks warn others in the group of danger is by making a loud bleat. They communicate with their young with soft bleats. These antelopes make buzzing sounds when alarmed, and they may whistle when annoyed.

Predators of the generuk include lions, cheetahs, and leopards. Wild dogs and jackals also prey on generuks. Habitat loss and destruction threaten generuks. This makes it difficult for them to find food and shelter from predators. Conserving the thickets is one way to maintain the survival of this long-necked antelope.

Text Questions

- Which title would be a good alternative for this text?
 - "The Giraffe's Cousin"
 - "The Long-Necked Antelope"
 - "Leaf Eaters"
 - "Hidden Fawns"
- What are two unusual features of this animal?
 - It eats leaves and has a small head.
 - It has natural predators and can whistle when annoyed.
 - It has a long neck and does not need water.
 - The mother cares for the young, and the males have horns.
- What does the word *traversing* mean as it is used in the third paragraph?
 - opposing
 - surveying
 - turning
 - crossing
- How would you summarize the fourth paragraph?
 - Generuks are very vocal.
 - Generuks warn group members when there is danger.
 - Generuks are silent animals.
 - Generuks communicate with their young.
- What can we learn from studying animals with unusual characteristics?

Name _____

Deadly Delicacy

Imagine a fish that swallows water to inflate itself like a balloon. The pufferfish does just that as a defense against predators. Its slow, clumsy swimming ability makes it hard for it to escape. However, once the pufferfish expands its size, it becomes an inedible ball. The fish can puff up to two or three times its normal size. Quick-acting predators that manage to eat the fish before it inflates will receive a lethal poison. The poison is also toxic to humans; one fish contains enough poison to kill thirty people.

However, in Japan, people consider the meat of the pufferfish a delicacy. Chefs undergo special training to learn how to prepare the fish in such a way that it is safe to eat. It takes two years to complete this training. Thin slices of the flesh are served with all traces of toxins from the organs removed. Still, as many as two hundred people a year are poisoned from the fish, and about half of them die.

Many species of pufferfish exist. Most make their homes in tropical or subtropical waters, but some are freshwater fish. Pufferfish have rough or spiny skin in place of scales. Some have bright coloring to warn predators of the poison. Others have coloring that blends in with their environment.

Pufferfish consume mostly invertebrates and algae. Some species eat clams, mussels, and other shellfish. Perhaps they derive toxins from the bacteria in the food they eat. The toxin acts on victims by affecting the nervous system. Paralysis begins from the outermost parts and works inward.

Why would anyone wish to eat such a food? Some people like to live on the edge. There's a thrill in doing something daring. Others want to experience the tingling sensation that can occur on the tongue and lips. The best approach, though, is to beware of the pufferfish.

Text Questions

1. What does the word *lethal* mean as it is used in the first paragraph?
 - a. authorized by law
 - b. slow
 - c. deadly
 - d. harmful
2. What do other fish have that pufferfish lack?
 - a. gills
 - b. scales
 - c. skin
 - d. poison
3. What is the purpose of the second paragraph?
 - a. It describes how chefs prepare pufferfish to make it safer to eat.
 - b. It gives details about a chef's training.
 - c. It explains why pufferfish are poisonous.
 - d. It tells why people like to eat pufferfish.
4. What does the idiom "live on the edge" mean in the fifth paragraph?
 - a. to be different from other people
 - b. to do unusual things
 - c. to participate in dangerous activities
 - d. to have a house built on a cliff
5. Why do you suppose people like to eat poisonous fish?

Name _____

The Climbing Rodent

At first glance, it's hard to tell if vizcachas are related to rabbits or rodents. The large ears and long hind legs of a vizcacha resemble those of a rabbit. However, it has a bushy tail similar to a chinchilla. Rodents and rabbits have specific physical differences. The vizcacha has two incisors, as do other rodents. Unlike some rodents, however, it is an herbivore, feeding on almost any type of plant.

Vizcachas live in colonies that range from a few members to hundreds. They use many different methods to communicate. The position of their tails indicates anxiety or relaxation. An extended tail shows the animal is anxious, and if the tail is curled, the animal is at ease. The animals chatter to one another within the colony. They give loud warning calls to alert others of danger. One advantage of colony living is protecting the young. A female gives birth to one fully developed baby, which is weaned at two months. But the young is small and vulnerable.

Mountain vizcachas live in rocky mountain areas of South America. Unable to dig well enough to escape predators, the animal has adapted to its habitat by developing superb climbing skills. It uses its powerful hind legs to jump quickly among the rocks. Their speed and harsh living environment keep the vizcacha safe from most predators, such as pumas and foxes. But speed cannot fully protect it from its worst enemy: humans. People hunt vizcachas illegally for their meat and fur. Habitat loss also threatens them.

We group things in our environment to help us understand the world in which we live. Most often, we use visual cues to help us categorize plants and animals. However, sometimes things are not what they seem. Not all furry creatures with large ears, long hind legs, and fluffy tails are rabbits. Not all rodents burrow to escape predators. Each animal adapts to its unique environment.

Text Questions

1. What is the vizcachas' main defense against predators?
 - a. digging
 - b. climbing
 - c. attacking
 - d. hiding
2. Which statement does not describe a communication behavior of vizcachas?
 - a. They extend their tails to show anxiety.
 - b. They chatter within the colony.
 - c. They move their ears to communicate food sources.
 - d. They give loud warning calls to alert others of danger.
3. What is one purpose of this passage?
 - a. to show how one species is different from another
 - b. to describe the habitat of a chinchilla
 - c. to explain how animals communicate
 - d. to describe how animals survive in rocky mountain environments
4. Which is a synonym for the word *categorize* as it is used in the text?
 - a. classify
 - b. characterize
 - c. describe
 - d. attribute
5. How can scientists help people understand differences between species?

Name _____

Panda Ants

Is it a wasp or is it an ant? Meet the panda ant—a wasp that looks like a hairy ant! The black and white panda ant is so named due to its appearance. It is covered with coarse, short hair. Panda ants are part of a much larger family of wasps known as “velvet ants.” Females in this wasp family do not have wings, however, which makes them look more like ants. Some species make their home in arid areas of the southern and western United States. The panda ant, however, is found specifically in Chile.

Young velvet ants are parasites, feeding on the mature larvae and pupae of other species. They have an unusually tough exoskeleton, which likely helps them invade the nests of their prey. Although only the

female is capable of inflicting a sting, they are known to be quite painful. This powerful sting has earned them the name “cow killer.”

We often associate wasps with their stings. Wasps also bring to mind colonies of angry insects. However, they are more beneficial to humans than harmful. They prey on other insects we consider pests. However, many species, including the panda ant, are solitary. Solitary wasps use their sting to hunt rather than for defense.

Very little is known about this particular species of wasp. Other related species have been observed and studied in the United States. Scientists want to learn more about any harmful effects and benefits to people.

Text Questions

1. What does the word *parasites* mean as it is used in the second paragraph?
 - a. animals that live in multiple locations
 - b. people who live at the expense of others without paying
 - c. animals that live on an organism from which they receive nourishment
 - d. animals that spread bacteria to other organisms
2. What can you infer about this insect from its name?
 - a. It lives in China.
 - b. Its black and white color resembles a panda bear.
 - c. It is an ant that eats bamboo leaves.
 - d. It has a lot of fur.
3. Based on the text, how do solitary wasps differ from social wasps?
 - a. They are never seen around people.
 - b. They sting to defend themselves.
 - c. Their sting is used to hunt.
 - d. They do not build nests.
4. What organizational structure does the author use to help the reader understand the information?
 - a. compare and contrast
 - b. sequential
 - c. problem and solution
 - d. cause and effect
5. Why might farmers place wasps near crops?

Name _____

Cave Dwellers

Amphibians are cold-blooded vertebrates that live in water and breathe with gills when they are young. As they mature, they develop lungs and live on land. However, not all species go through this common metamorphosis. The olm, or cave salamander, retains external gills and a tail fin throughout its life. The amount of time it takes for the young to mature depends on water temperature.

Found mostly along the Adriatic Sea, the olm dwells in underwater caves. It also lives in underground freshwater lakes and streams in the mountains. These bodies of water contain high amounts of oxygen. The temperature of the water ranges from 40 to 60 degrees. The animals generally live almost 1,000 feet below the surface of the water.

The relatively inaccessible habitat of olms makes studying them difficult. Much of what we know about this animal has been learned from those in captivity. Scientists expect the life span to be around 100 years, making olms the longest-lived amphibian species.

Olms prey mostly on insects and spiders. They will also eat crustaceans and mollusks. Due to their underwater environment, the salamanders' eyes are not well developed, although their eyes do have some sensitivity to light. Olms can sense chemicals, sound vibrations, and electric fields. They use these abilities to orient themselves as well as to detect prey. They have no known predators. As with many species, they are vulnerable due to loss of habitat and pollution.

Text Questions

1. Why might olms have poorly developed vision?
 - a. They do not lose their juvenile underwater characteristics.
 - b. They can detect their prey using other senses.
 - c. There is nothing to look at underwater.
 - d. They need to develop senses that will enable them to survive in permanently dark environments.
2. What does the word *inaccessible* mean as it is used in the text?
 - a. impossible to reach
 - b. cannot be seen
 - c. cannot be obtained
 - d. cannot be influenced by the environment
3. What can you infer about olms that makes them different from most amphibians?
 - a. They do not swim well.
 - b. They do not have gills.
 - c. They do not venture onto land.
 - d. They are not vertebrates.
4. What is the main idea of the second paragraph?
 - a. where cave salamanders live
 - b. why cave salamanders are considered amphibians
 - c. the senses of olms
 - d. how people study olms
5. What can we learn from studying cave salamanders?

Name _____

Animals and Humans

Animal behavior is a fascinating study. Scientists divide animal behavior into categories that are similar to those we use to describe human behavior, such as diet and habitat. Scientists study the strategies animals use to hunt, capture, or forage for their food. They research the defenses animals use against predators and which animals prey on other animals. All of this helps us understand how animals can benefit us.

Each country or cultural group raises certain animals for food. In the United States, people mainly eat meat from cows, chickens, and pigs. In other countries, people might raise sheep or buffalo for meat. The differences arise in part from climate and other environmental factors. People around the world eat a variety of fish and shellfish from oceans and freshwater sources. In the United States, we don't always consider some animal groups as valid options for food as readily as others. For instance, you might not have thought about eating insects. But people in other countries regularly consume insects. Amphibians for dinner? In specific regions such as West Africa, yes.

Animals provide humans with more than food. They have been helping people with daily tasks for thousands of years. Horses, oxen, and other work animals pull loads. Harnessed, they can move machinery to do work such as grinding grain. Elephants, camels, and other animals transport people and goods from place to place. Carrier pigeons have been used to deliver messages.

People also receive companionship and other health benefits from animals. For instance, dogs and cats can have a calming effect on people. This is helpful for people fighting various diseases. Animals can also lower stress, making it easier for people to concentrate on learning new information, such as reading. When people interact with dogs or horses, it encourages exercise.

Animals and humans share space on Earth. Maintaining a healthy relationship with our fellow inhabitants is in our best interest.

Text Questions

- Which of the following would be a good summary sentence for this text?
 - We study animal behavior to help us learn how to find food.
 - Animals provide us with food, work, and companionship.
 - Animals make great companions for people.
 - People and animals should learn to work together.
- Why did the author include the information in the first paragraph?
 - to summarize the passage
 - to give details about how animals help us with work
 - to explain why people eat animals
 - to introduce the topic and provide an overview
- What does the word *forage* mean as it is used in the text?
 - to search for food
 - to search for what you want
 - to take food from others
 - to provide with provisions
- Which statement explains one way in which animals benefit people?
 - We divide animal behavior into categories that are similar to those we use to describe human behavior.
 - In the United States, we don't always consider some animal groups as valid options for food as readily as others.
 - Animals have been helping people with daily tasks for thousands of years.
 - Animals and humans share space on Earth.
- What can studying animal behavior teach us about the world in which we live?