

Adaptations

Reading Fluency &
Comprehension
TASK CARDS



Bow Tie Guy
and Wife



Extremes

Animals that survive in extreme conditions are tolerant. Tolerant is a describing word that tells how animals endure a condition. There are animals that are altitude tolerant. Bar-headed geese have been spotted flying as high as 27,000 feet high. These geese breathe much deeper than other birds to increase its oxygen intake, as at high altitudes, oxygen levels are lower. Other extremes that animals will need adaptations are chemical, cold, dry, fire, and heat. Plants like algae live off of hot mineral springs. Lichens and algae can often cling onto freezing rocks in the polar climates. Cacti will store water in their stems and stretch their roots far to collect rare rainwater. The Temminck's courser, an African bird, will lay their eggs in areas where fire has cleared vast amounts of land. Animals such as lizards live in very dry conditions, and survive by hiding under rocks and sand during the hottest parts of the day.

Intelligence

Intelligence is an adaptation that animals use to survive. They use their brains and think about ways to survive. Carrion crows will use passing vehicles to crush nuts that are too hard for them to do themselves. Dolphins use language to communicate to other dolphins about the location of fish. They use clicks and other sounds to do this. Humans use their intelligence to reign supreme. They use language, write, and use technology to get what they need and want. Capuchins are a type of monkey that will break apart rocks to get minerals that they need to survive. Many animals use tools to survive. Chimpanzees will often use branches to smash bee colonies, and capture the honey created by the bees.

Behavior

Plants and animals use behavior to survive. Behavior is how a plant or animals acts in order to survive. Air plants complete their life cycle attached to another plant, than grow its own roots. Mosses can be found on dead trees. They collect water from the air (rain). Nocturnal animals hunt at night for a better opportunity of finding food. Bull sharks survive in freshwater with their incredible senses. They hunt when their prey is sleeping. Parasitic organisms such as ticks attach themselves, usually unknowingly, to a host (a warm-blooded animal.) The tick will suck blood from its host, and will detach itself when it is full. Swarming organisms like bacteria will multiply itself and continue to feed on a host.

Communication

Animals will communicate in order to survive. Communication is the messages that animals send to one another. A skunk will spray an awful odor to communicate to potential predators that they would not be fit to eat. Finch chicks communicate with their parents by having markings on their beaks, so that their parents can appropriately find their mouths in the absence of light. A howler monkey will scream in the jungle when a potential predator arrives. The howler monkey is warning other howler monkeys that danger is imminent.

Roles in Ecosystems

Organisms that produce their own food are called producers. Organisms that use the food energy that was made by producers are called consumers. Herbivores are animals that eat only plants and seeds. This includes leaves, flowers, fruit, and sometimes wood. Deer and cows are examples of herbivores. They graze often which gives them both the water and nutrition that they need. Omnivores eat both meat and plants. Most humans are examples of omnivores. People eat vegetables and fruits, but they will also eat meat. People that do not eat meat are known as vegetarians. Carnivores are animals that eat only meat. Wolves are examples of carnivores. They often hunt in packs to secure a meal. A carnivore is a predator. A predator is an animal that hunts for other animals for food. Prey consists of animals that are hunted for food. Examples of prey consist of mice or rabbits. Animals can be known as predators and prey. Snakes can be predators, eating eggs, and prey to birds like hawks. Scavengers are animals that feed on dead animals. Vultures are scavengers. You may find them in the road munching on road kill as a means for survival.

Feeding Habits

Animals have different feeding habits as a means of survival. Scavengers feed on the remains of dead or dying animals. Herbivores do not eat meat, they eat grasses, leaves, stems, and sometimes, wood. Some animals like the dung beetle survive by eating the droppings of animals. Carnivorous animals eat only meat. Omnivores eat plants and animals. Blood suckers, like the tick, feed off of the blood of a living animal.

Life Cycles

Some animals go through life cycles that show growth and development. Metamorphosis is another word for change. Frogs become frogs in stages. It starts out as an egg, then it turns into a tadpole. Then it turns into a tadpole with legs, and then into a froglet. After this stage, it will become a frog. Some animals will show signs of molting. Molting is the renewing of skin, fur, or feathers. Animals will shed old or dead skin to grow new skin for better protection from the environment. Animals will often lose fur when the season is warmer, and will grow fur when the season is cooler. Some animals will be taken care of by only their mother. Animals like the seahorse will care for seahorse eggs until they hatch.

Locomotion

Locomotion is the name for how animals move around. Animals that are adapted to climbing are used to living in trees, and use the trees for protection from animals that cannot climb. Animals that are adapted to flying use their wings to evade predators, and to find food. Ocean animals have adapted their lungs to get oxygen from water instead of air. Animals like the kangaroo have adapted to jumping to propel themselves long distances across land. Animals like the cheetah have bodies that are built for running. The cheetah can chase prey down for food using their speed. Plants can produce seeds that are shaped like small helicopters, that are designed to fly far away in hopes of landing in an area where there is space and good soil.

Size, Shape, Color

Animals will often use camouflage to protect themselves. Camouflage is the markings and color that animals will take to prevent themselves from becoming prey. Animals will make themselves look larger in order to scare another animal. Cats will raise the hair on their backs if they are scared. Cobras have hoods on their heads that make their appearance much larger than they actually are. Army ants have workers that are different sizes, and are in the same nest.

Predators

Animals are called predators when they hunt for food. There are many different types of predators. A venomous predator is a predator that usually has sharp, hollow teeth that will inject venom into the prey and inflict serious harm or death. Spiders are trapping predators. They use webs to catch their prey. Pack predators like the hyena will track down prey in packs, or groups, and will kill and eat together. Cats are ambush predators. They will hide, or stalk their prey, and will pounce on their prey, eating it.

Reproduction

Seed dispersal can occur through the passing of waste of animals in conditions where seeds can grow from the waste. Seeds can be spread by wind. Seeds can attach themselves to the fur of animals and be released in a new location. Pollinators are responsible for the growth of new plants. Pollinators like bees will drink the nectar from flowers and will unintentionally take pollen from one flower and deposit into another producing new plants. Animals can be born active at birth like calves and humans. Animals can be hatched out of eggs after being protected by their mother, or after not being protected by their mother. Sea turtles eggs are laid by their mother, and left in a burrow on a beach. She leaves them buried, never to return. To create a new life, there needs to be two mates.

Social Behavior

Social behavior is an adaptation that animals have that is about how the animal interacts with the members of its own species. Beehive, ant mounds, and dens of meerkats are examples of animals living in colonies. The colonies contain many of the same species living closely together. In a hierarchy, there is usually an order of importance in it. In a wolf pack, there is usually a leader of the pack that gets the privilege in food, mates, and shelter. Lions are an example of social animals. Lions like to be around each other. They are attracted to each other by scent or sound, and will often protect each other as if they were a family. Territorial animals will fight animals of their own species to ensure that they have enough food or mates for their area. Sometimes the fighting is until an animal quits, but sometimes the fighting is to the death.

Survival Strategies

Animals must employ many different survival strategies in order to live long lives, and have offspring. Some animals will store food for later like the squirrel. They will bury nuts, and then dig them up later to eat, especially when food becomes scarce. Animals like the puffer fish will blow itself with spines to defend itself from would-be predators. Animals will migrate, or move, to other locations when food becomes scarce in the current area where they live. Bears will hibernate, which means that will enter a deep sleep, where they can conserve their energy from the cold, until a warmer climate arrives.

Migration

Migration is the moving of animals to a new location in better hopes of finding food. Salmon migrate to spawn, or create new life. They head upstream in the Pacific Northwest in the United States. The great blue heron migrate to the South during the winter. It flies to the South for better opportunities for food, when food in the North is not as plentiful.

Natural Selection

Animals change over time through a process called natural selection. Natural selection is the gradual process by which traits become more or less common in a population as a result of the environment that an organism lives in. Animals like the blue-footed booby have developed odd-looking blue webbed feet that show strange movements in order to attract a mate. Fish and many insects will lay thousands of eggs, knowing that not many will survive. By laying so many eggs, they give its species a better opportunity at survival. How does a fish know why it has to lay so many eggs? The answer is natural selection.

Extinction

Extinction is the process of an organism no longer being in existence. When an organism becomes extinct, it has died out forever. Dinosaurs have gone extinct from what scientists speculate was a catastrophic event such as a meteor hitting Earth and creating so much dust that the Sun was completely blocked for many years killing plant life, thus killing the dinosaurs. The loss of habitat for some animals have led to their extinction. Humans have been responsible for many extinctions because the animals could not adapt to the sudden habitat changes that they underwent with the development of human civilizations.

Hibernation

Hibernation is a sleep-like state where animals slow down their body systems to survive a winter. When winter arrives, the temperatures can be deadly for animals to hunt for food in. Over millions of years, animals have adapted to cold conditions with the ability to hibernate. Some animals like the bear will develop a layer of fat that will be consumed during hibernation. The bear will lower its heart rate to conserve energy. Its core temperature will decrease in order to conserve energy.

Paleontologists

A paleontologist is a scientist who studies forms of life that existed long ago. They mostly study fossils. Fossils are the remains of plants, animals, tracks, and droppings. A paleontologist will discover fossils, and then make predictions as to why the organism became extinct. The paleontologist determines what the organism ate, how it lived, and how it may have died.

Mimicry

Mimicry is when a plant or animal tries to resemble another plant or animal to gain an advantage. The mimicking of a plant or animal can include trying to smell, sound, or behave like another plant or animal. Orchids, a type of flower, will mimic a female wasp, so that male wasps will pollinate them. A king snake, which is not dangerous, looks like a coral snake, which is highly poisonous.

Species

A species is a group of plants or animals that share the same or similar characteristics. Members of a species that are male and female can mate and have offspring. Their young's birth and life guarantees that the species will continue to survive. There are as many as 8,000 species of ants, which mean that there are 8,000 different situations where offspring can be made. When for whatever reason a species cannot produce offspring, it will become extinct. When a species becomes extinct, there will be no more members of the species.

Camouflage

Camouflage is an adaptation that animals have that is the coloring, marking, or other physical features of an animal that help it blend in with its surroundings. Animals use camouflage because they need protection from other animals. Animals will often use their camouflage to blend into objects like trees, the ocean floor, and leaves to protect themselves.

Fossils

The only direct method of studying animals that have been long extinct is studying their fossils. A fossil is the remains of a plant or animal. The scientists that study fossils are called paleontologists. Paleontologists can study how organisms of long ago lived, what they looked like, and what they ate. Fossils can provide clues as to ancient climates on Earth as well, based on the physical adaptations that have been made by the organism.

Plant Adaptations

Plants have adaptations to help them in survival. Adaptations are special features that allow a plant to survive. Every plant has special features, but plants like the Venus fly trap grow in poor soil with few nutrients. To make up for this, the Venus fly trap will capture insects, and will absorb their nutrients to get what it needs to survive. Depending on the biome, or area around the world, all plants develop special features that will help them survive. Trees in the rainforest will grow as high as possible in order to get the most sunlight. Since the rainforest can be dense, there is a competition between plants for survival.

Instincts

An instinct a behavior that an animal is born with rather than learned. An instinct to animals is migration. A bird does not need to be told to fly south for the winter to find more food, they just know to go when their food supply is critically low. An instinct that animals have is defense. An animal will not allow a another animal to simply eat it. The animal will fight back, or will run to avoid being prey.

Name: _____ Date: _____

Directions: Use the appropriate task card to answer the questions below.

Adaptations: Answering Questions I

<p><u>Extremes</u></p> <p>What does tolerant mean?</p> <p>What did you learn about the bar-headed geese?</p> <p>What kind of plant lives off of hot mineral springs?</p>	<p><u>Intelligence</u></p> <p>What is intelligence?</p> <p>How do dolphins communicate?</p> <p>How will carrion crows use oncoming cars?</p>	<p><u>Behavior</u></p> <p>What is behavior?</p> <p>Why do bull sharks hunt at night?</p> <p>What is a parasitic organism?</p>	<p><u>Communication</u></p> <p>What is communication?</p> <p>Why would a skunk spray an awful odor?</p> <p>Why would a howler monkey scream in the jungle?</p>
<p><u>Roles in Ecosystems</u></p> <p>What is a producer?</p> <p>What is a consumer?</p> <p>Define the following - Carnivore - Predator - Omnivore -</p>	<p><u>Feeding Habits</u></p> <p>Define the following - Carnivore - Herbivore - Omnivore -</p> <p>What do scavengers feed on?</p> <p>How does the dung beetle survive?</p>	<p><u>Life Cycles</u></p> <p>What is metamorphosis?</p> <p>What is the life cycle of a frog?</p> <p>What is molting?</p>	<p><u>Locomotion</u></p> <p>What is locomotion?</p> <p>What do animals that have adapted to flying use and what for?</p> <p>How can plants send their seeds?</p>
<p><u>Size, Shape, Color</u></p> <p>What will animals often use to protect themselves?</p> <p>What is camouflage?</p> <p>Why will cats raise their hair on their backs?</p>	<p><u>Predators</u></p> <p>What is a predator?</p> <p>How will a venomous predator hunt for food?</p> <p>What is an ambush predator, and how do they hunt?</p>	<p><u>Reproduction</u></p> <p>What is seed dispersal?</p> <p>How can animals spread seeds?</p> <p>What are two examples of animals that are born active?</p>	<p><u>Social Behavior</u></p> <p>What is social behavior?</p> <p>What will the leader of a hierarchy usually get?</p> <p>What are territorial animals?</p>

Name: _____ Date: _____

Directions: Use the appropriate task card to answer the questions below.

Adaptations: Answering Questions II

<p><u>Survival Strategies</u></p> <p>How will animals like the squirrel store food?</p> <p>Why will animals migrate?</p> <p>Why will bears hibernate?</p>	<p><u>Migration</u></p> <p>What is migration?</p> <p>What does it mean to spawn?</p> <p>Why does the great blue heron migrate?</p>	<p><u>Natural Selection</u></p> <p>What is natural selection?</p> <p>How does the blue-footed booby attract a mate?</p> <p>How do fish and insects try to survive?</p>	<p><u>Extinction</u></p> <p>What is extinction?</p> <p>Who is responsible for many of the losses of habitat?</p> <p>How do scientists speculate the dinosaurs became extinct?</p>
<p><u>Hibernation</u></p> <p>What is hibernation?</p> <p>What will some animals develop to survive the winter?</p> <p>How else will a bear try to hibernate?</p>	<p><u>Paleontologists</u></p> <p>What can a paleontologist determine?</p> <p>What is a paleontologist?</p> <p>What will paleontologists discover and why?</p>	<p><u>Mimicry</u></p> <p>What will orchids try to mimic and why?</p> <p>What is mimicry?</p> <p>How will a king snake use mimicry?</p>	<p><u>Species</u></p> <p>What will happen if a species cannot reproduce?</p> <p>Who can mate in a species?</p> <p>What is a species?</p>
<p><u>Camouflage</u></p> <p>Why do animals use camouflage?</p> <p>What is camouflage?</p> <p>What will animals use their camouflage to blend into?</p>	<p><u>Fossils</u></p> <p>What is a fossil?</p> <p>Who studies fossils?</p> <p>What can fossils provide?</p>	<p><u>Plant Adaptations</u></p> <p>What are adaptations?</p> <p>How does a Venus fly trap get the nutrients it needs?</p> <p>How do trees in the rainforest adapt?</p>	<p><u>Instincts</u></p> <p>What is an instinct?</p> <p>Why is an instinct to birds migration?</p> <p>What is another instinct that animals have?</p>

Name: _____ Date: _____

Directions: Use the appropriate task card to answer the questions below.

Adaptations: Answering Questions I **ANSWER KEY**

<p><u>Extremes</u></p> <p>What does tolerant mean? It describes how animals endure a condition.</p> <p>What did you learn about the bar-headed geese? Answers will vary/they have been seen flying as high as 27,000 feet high</p> <p>What kind of plant lives off of hot mineral springs? Algae</p>	<p><u>Intelligence</u></p> <p>What is intelligence? An adaptation where animals use their brain to survive.</p> <p>How do dolphins communicate? They use clicks and other sounds to tell other dolphins about the location of fish.</p> <p>How will carrion crows use oncoming cars? They will let the cars crush the nuts for them.</p>	<p><u>Behavior</u></p> <p>What is behavior? How a plant or animal acts in order to survive.</p> <p>Why do bull sharks hunt at night? They hunt for their prey while they sleeping.</p> <p>What is a parasitic organism? An animal like a tick that will, sometimes, unknowingly feast on a host's blood.</p>	<p><u>Communication</u></p> <p>What is communication? Communication is the messages that animals send to one another.</p> <p>Why would a skunk spray an awful odor? To warn potential predators that they would not be fit to eat.</p> <p>Why would a howler monkey scream in the jungle? To warn other howler monkeys that a predator is in the area.</p>
<p><u>Roles in Ecosystems</u></p> <p>What is a producer? An organism that produces its own food.</p> <p>What is a consumer? Organisms that use the food energy made by producers.</p> <p>Define the following - Carnivore - Eats only meat Predator - Eats only plants Omnivore - Eats plants and animals</p>	<p><u>Feeding Habits</u></p> <p>What do scavengers feed on? The remains of dead or dying animals.</p> <p>How does the dung beetle survive? By eating the droppings of animals.</p> <p>Define the following - Carnivore - Eats only meat Herbivore - Eats only plants Omnivore - Eats plants and animals</p>	<p><u>Life Cycles</u></p> <p>What is metamorphosis? Change</p> <p>What is the life cycle of a frog? Egg - tadpole - tadpole with legs - froglet - frog</p> <p>What is molting? The renewing of skin, fur, or feathers.</p>	<p><u>Locomotion</u></p> <p>What is locomotion? How animals move around</p> <p>What do animals that have adapted to flying use and what for? Wings, to evade predators, and to find food.</p> <p>How can plants send their seeds? Some seeds are shaped like helicopters to fly far away to a safe area with good soil.</p>
<p><u>Size, Shape, Color</u></p> <p>What will animals often use to protect themselves? camouflage</p> <p>What is camouflage? The markings and colors that animals will take to prevent themselves from becoming prey.</p> <p>Why will cats raise their hair on their backs? If they are scared.</p>	<p><u>Predators</u></p> <p>What is a predator? An animal that hunts for food.</p> <p>How will a venomous predator hunt for food? It will inject venom into its prey severely hurting it, or killing it.</p> <p>What is an ambush predator, and how do they hunt? They will hunt or stalk their prey and pounce on their prey, eating it.</p>	<p><u>Reproduction</u></p> <p>What is seed dispersal? The way that seeds are spread.</p> <p>How can animals spread seeds? The seeds can attach themselves to the fur of animals and detach somewhere else.</p> <p>What are two examples of animals that are born active? Humans and calves</p>	<p><u>Social Behavior</u></p> <p>What is social behavior? How the animal interacts with the members of its own species.</p> <p>What will the leader of a hierarchy usually get? Privilege in food, mates, and shelter</p> <p>What are territorial animals? They will fight the animals of their own species to ensure that they have enough food or mates for their area.</p>

Name: _____ Date: _____

Directions: Use the appropriate task card to answer the questions below.

Adaptations: Answering Questions II **ANSWER KEY**

<p><u>Survival Strategies</u></p> <p>How will animals like the squirrel store food? They will bury nuts and dig them up later.</p> <p>Why will animals migrate? To find more food.</p> <p>Why will bears hibernate? To conserve their energy during the cold winter months.</p>	<p><u>Migration</u></p> <p>What is migration? The moving of an animal to a new location in better hopes of finding food.</p> <p>What does it mean to spawn? To create new life</p> <p>Why does the great blue heron migrate? To find food in the South, when food in the North is not as plentiful.</p>	<p><u>Natural Selection</u></p> <p>What is natural selection? The gradual process by which traits become more or less common in a population as a result of the environment that an organism lives in.</p> <p>How does the blue-footed booby attract a mate? They show strange movements in their blue feet.</p> <p>How do fish and insects try to survive? By laying many eggs</p>	<p><u>Extinction</u></p> <p>What is extinction? The process of an organism no longer being in existence.</p> <p>Who is responsible for many of the losses of habitat? Humans</p> <p>How do scientists speculate the dinosaurs became extinct? Through a catastrophic event</p>
<p><u>Hibernation</u></p> <p>What is hibernation? A sleeplike state where animals slow down their body systems to survive winter.</p> <p>What will some animals develop to survive the winter? A layer of fat that will be consumed during hibernation.</p> <p>How else will a bear try to hibernate? By lowering its heart rate and temperature.</p>	<p><u>Paleontologists</u></p> <p>What can a paleontologist determine? What the organism ate, how it lived, and how it may have died</p> <p>What is a paleontologist? A scientist that studies forms of life that existed long ago.</p> <p>What will paleontologists discover and why? Fossils, and then they will make predictions as to why the organism became extinct.</p>	<p><u>Mimicry</u></p> <p>What will orchids try to mimic and why? A female wasp, to get pollinated.</p> <p>What is mimicry? When a plant or animal tries to resemble another plant or animal to gain an advantage.</p> <p>How will a king snake use mimicry? They will make themselves look like the coral snake, a poisonous snake.</p>	<p><u>Species</u></p> <p>What will happen if a species cannot reproduce? It will go extinct (die out)</p> <p>Who can mate in a species? Males and females.</p> <p>What is a species? A group of plants or animals that share the same or similar characteristics</p>
<p><u>Camouflage</u></p> <p>Why do animals use camouflage? The use it so they can protect themselves.</p> <p>What is camouflage? An adaptation that animals have that is the color, marking, or other physical features of an animal that help it blend in with its surroundings.</p> <p>What will animals use their camouflage to blend into? Trees, the ocean floor, and leaves.</p>	<p><u>Fossils</u></p> <p>What is a fossil? The remains of a plant or animal</p> <p>Who studies fossils? Paleontologists</p> <p>What can fossils provide? Clues as to ancient climates on Earth based on the physical adaptations of the fossil.</p>	<p><u>Plant Adaptations</u></p> <p>What are adaptations? Special features that allow a plant (or animal) survive</p> <p>How does a Venus fly trap get the nutrients it needs? It will capture insects and absorb them.</p> <p>How do trees in the rainforest adapt? They grow as tall as they can, trying to reach the Sun.</p>	<p><u>Instincts</u></p> <p>What is an instinct? A behavior that an animal is born with, rather than learned.</p> <p>Why is an instinct to birds migration? Because birds do not need to be told to move to find food.</p> <p>What is another instinct that animals have? They fight or run.</p>