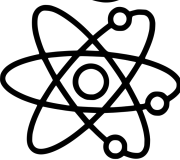


3RD GRADE

SCIENCE



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newsletter

Week of April 15th - April 19th



WHAT ARE WE LEARNING?

- Living & non living things
- Animal classification

Vertebrate

Invertebrate

Amphibians

Reptile

Mammals

Fish

Birds



CONTACT ME



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Mrs. Maldonado

HOME LEARNING

Monday: * What makes an animal an animal?

*Animal Acrostic

Tuesday: *Vertebrates Characteristics Chart

Wednesday: *Writing in Science Worksheet

Thursday: *The Spineless: Invertebrates

*The Invertebrates Worksheet

DUE DATE: 4/22

QUIZLET VOCABULARY



MINDSET
IS
EVERYTHING

What Makes an Animal an Animal?

What do spiders, tigers, jellyfish, and worms all have in common? They are all animals! Animals are living things that have been grouped based on common traits. Animals are able to respond to their environment. For instance, if there is danger, animals can use their instincts to run away. They can also look for food when they are hungry or lay in the sun when they want to warm up. Another common trait animals have is the ability to move. Some animals swim, while some fly, and others run and jump. This helps animals find and get their food. Finally, animals have structures, or parts, that help them get what they need. Wings, tails, fins, and legs are all examples of animal structures.



Animals need to have food and water in order to survive. Unfortunately, animals are not capable of making their own food. Instead, they must find it. Animals use a variety of structures to get their food. For instance, birds have various types of beaks to assist in getting food, while some animals have long, sharp front teeth. Animals also need oxygen to breathe. Some animals use lungs to breathe while others use gills. Finally, animals need shelter to protect themselves from their environment.



Although all animals respond to their environment, reproduce, have common structures, and move, they are very different from one another. Scientists have broken up the animal group into smaller categories to make it easier to study. One way that scientists have classified animals is by sorting them into two groups known as the vertebrate and invertebrate.

The vertebrate group is classified by having the structure known as vertebrate, or backbone. This is made of small bones running down the center of an animal's back. This group is made up of animals such as birds, turtles, frogs, whales, fish, tigers, and many more. Even you!

The invertebrate group is a group of animals that do not have vertebrate. Most animals on Earth are invertebrates. Invertebrates not only don't have a backbone, but they don't have any bones at all. This group is made up of animals such as jellyfish, worms, spiders, snails, and sponges.

Animal Acrostic

Write an acrostic with characteristics that makes an animal an animal. Make sure it starts with the letter provided and include a picture at the end of each line.

A _____

n _____

i _____

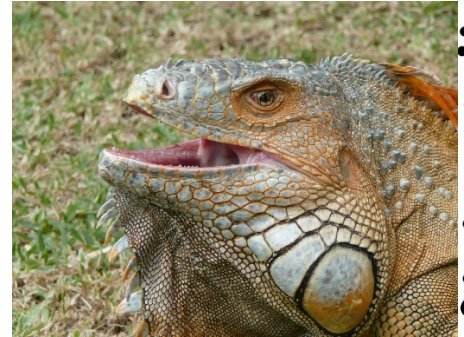
m _____

a _____

l _____

What are Reptiles?

Reptiles are an interesting group of vertebrates. When you think of reptiles, I bet your first thought is snakes. Snakes and lizards make up the largest number of different reptiles, but there is more to reptiles than that. For instance, crocodiles and alligators are both reptiles. Turtles are reptiles too.



Reptiles are found in water and on land. For instance, a sea turtle lives in water while many different species such as chameleons and skinks live on land. Crocodiles and alligators mostly live on land, but will hang out in water from time to time. The reptiles that hang out in water have to come to the surface frequently for air because they have lungs to breathe with. One really old reptile called a tuatara found in New Zealand only comes out at night. This lizard-like reptile is very different from his family members, since most reptiles are out during the day.

Reptiles have tough thick scales to protect them. A turtle and a tortoise is an exception. They both have a large shell that they can hide inside when enemies are near. In addition to scales, reptiles are cold-blooded. This means that their temperature is the same as their surroundings. When a reptile wants to warm up, it moves into the sun. When a reptile wants to cool down, it moves into the shade.



While there are a few reptiles that give birth to live young, the majority of reptiles lay eggs with a hard shell. Once these reptiles are born, they are pretty much on their own and have to care for themselves.

What are Fish?

Did you know that a sea horse and a shark are fish? A fish is an animal that lives in water and breathes air through its gills. Fish do not have lungs so they have to have water pass over their gills and take air that way. Since fish live in water, they are cold-blooded. This means they take on the temperature of their surroundings.



Fish are vertebrate animals, though some have cartilage which is like the tip of your nose or your ears. Sharks, skates, and rays are all examples of fish that have cartilage. Additionally, with the exception of a few fish that have live babies, most fish lay many eggs.

Another common characteristic among fish is they have scales and a slimy coating to help them glide through the water easier. They steer with their fins to keep from rolling side to side. They have air bladders, or a balloon-like organ that help them float. When they let the air in their air bladder they rise. When they do the opposite, they sink. Sharks do not have an air bladder, so they must swim continually or rest at the bottom of the ocean.



What are Birds?

Birds are very special animals that have something no other animals have. Birds have feathers. On the outside, birds have smooth feathers to help them fly through the air easily and keeps water off their skin. The underneath layer is soft and fluffy to help keep the bird warm. Birds are warm-blooded animals. Warm-blooded animals have the same internal temperature regardless of the temperature outside.



Birds have wings to help them fly, but not all birds use them. For instance, a Kiwi bird has very tiny wings and feathers that are thick like fur. Penguins and ostriches are also birds that do not fly. Birds also have lightweight, hollow bones to help them weigh less and fly easier.

Birds also have another structure that is made from material lighter than bone called a beak. A beak helps birds complete their work, such as building nests, cleaning their feathers, or feeding themselves. Their beak is suited more for the type of food they commonly eat. For instance, a bird with a long pointed beak typically grabs fish, while a bird with a hooked beak will tear flesh from its prey or use it to crack seeds.



Birds breathe with lungs and lay hard shelled eggs. Interestingly, other than mammals, birds are the only animals that take care of their young. Birds will provide protection and feed their young until they are able to do it on their own.

What are Mammals?

Have you ever gone to a zoo? Most of the animals we see at a zoo are mammals. Mammals are a vertebrate class that lives in water and on land. They have structures such as limbs (arms and legs) that help them move. These animals breathe with lungs, so those that live in water must frequently come to the surface to breathe. That is why we often hear of whales or dolphins poking their head out of the water.



Mammals do not lay eggs, except the platypus and long-nosed spiny anteater. Instead, they give birth to live young. Mammals also make milk for their young which is unlike any other animals. They also take care of their young and protect them until they are older and able to do it themselves. Kangaroos and koalas protect their young by keeping them in a pouch.

Mammals have fur to keep them warm in cold climates. Since mammals are warm-blooded, this is very important. Warm-blooded means that the internal temperature of this animal does not change with its environment. For instance, humans are mammals and our consistent temperature is right around 98.6. It doesn't drop when it snows, or go up when we have a heat wave.



Dolphins and whales are both mammals, but do they have fur? Technically yes, but there are very few and hard to see. This is very important for them because being almost hairless helps them be able to glide in water easier. They stay warm by a thick layer of blubber.

What are Amphibians?

The word amphibian means “two-lives” which fits this cold-blooded vertebrate class nicely. Amphibians live the first part of their lives in water and the other half of their lives on land.

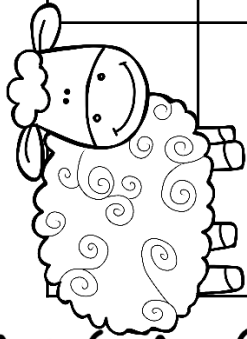


Amphibians lay many jelly-like eggs, not hard-shelled eggs in the water. These eventually hatch into babies called tadpoles. Since amphibians begin their lives in water, that also means they start off looking very much like a fish. They have gills and a long tail. As they grow older and change into an adult they lose the tail and grow legs. Their gills disappear and they grow lungs in order to breathe air on land.

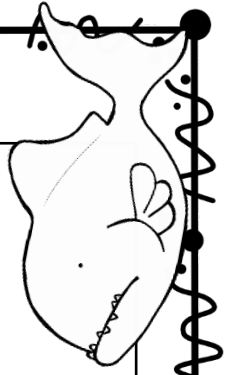
Amphibians also have a unique body covering! Amphibians don't have fur or scales, but instead have smooth, slimy skin. Their skin has to stay moist so it doesn't dry out. That is why you often find amphibians near water. Their skin also helps them breathe because the air goes through their skin and into their blood. It also protects them from predators because it picks up vibrations. Some even have poison on their skin to protect them. However, you can't actually get warts from toads.



Vertebrates Characteristics Chart



	Fish	Reptiles	Amphibians	Mammals	Birds
Breathing					
Birth					
Body Covering					
Movement					
Warm Blooded or Cold Blooded					
Examples					



Writing in Science

Name _____

Why are vertebrate important?



Writing in Science

Name _____

What do both vertebrate and invertebrate animals have in common?



The Spineless: Invertebrates

Invertebrates are animals without a backbone (or any bones at all!) and make up the largest group of animals on Earth. While most invertebrates are small, some such as the giant squid, can grow to be as long as a bus! Invertebrates can be found on land and in water all over the Earth. While invertebrates do not have bones, they do have other structures that hold them up and protect their bodies. Some have a thin, hard outer covering called an **exoskeleton** to support the soft body on the inside. This exoskeleton also protects the animal. Some invertebrates do not have an exoskeleton. Instead, their bodies are filled with water that protects them.



Invertebrates are broken down further into smaller groups. Scientists have given these groups complicated scientific names, but in this text, it is much simpler. They are the **sponge** group, the **worm** group, the **jellies**, the **arthropods**, and **mollusk** group. There is also a group called the **sea stars and urchins** group. Each of these groups have common characteristics.

The largest group of the invertebrates is the group **arthropods**. This group is composed of animals that have an exoskeleton and legs that bend in many places. This group is not only our insect group, but it also has lobsters and spiders in it.

The **mollusks** are invertebrate animals that have soft bodies. There are a few mollusks who have a hard shell, such as snails. Most mollusks push their bodies around with a muscle called a foot. In this group you will find clams, octopuses, and squids. **Sea stars and sea urchins** have shells also, but unlike the mollusk group, this group has their shells on the inside of their bodies.

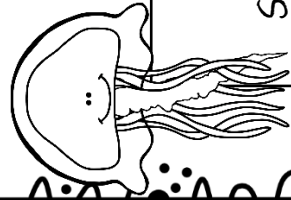
Another common invertebrate group are the **jellies**. This group of animals has no bones, no eyes, and no brain! They do have tentacles that like to sting their prey. This group includes the jellyfish. **Sponges**, another group of invertebrates, have holes in their bodies that help them pull water and floating food into them.



With more than one million species, the **worm** group has no skeleton or protection inside or out. This group is made up of flatworms, earthworms, and round worms.

The Invertebrates

Cut and paste the characteristics to its matching class of invertebrates



Sponges

Jellies

Worms

Sea Stars
&
Sea Urchins

Mollusks

Arthropods

Invertebrate characteristics

Largest group	Long thin bodies	Pore bearing	Has jointed legs and an exoskeleton
No brains or eyes	Some have shells	Most are parasites	Octopuses, squid, and clams
Some have a foot to push their bodies	Animals with external spine	Pull floating food into holes	Starfish and sand dollars
Jellyfish, coral, and sea anemones	Flatworm segmented, & round worms	Parts joined at the center of the body	Spiders, insects, lobsters
	Usually barrel shaped	Have stinging tentacles	

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