Part 1

Created Kinds

Do you have a favorite animal? Why is it your favorite?

Genesis 1:21 & 25 gives us six categories of animals that God created during the week of creation:

Great whales ◯

Every creature that moves in the water ◯

Winged fowl ◯

Cattle ◯

Beast ◯

Everything that creeps along the ground ◯

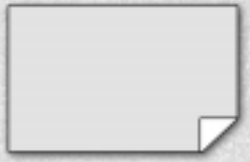
Draw a line matching a category from the left with the animals on the right.

Which category does your favorite animal fit into?

Created Animal Activity

Materials:

Pencil or pen



A piece of paper

Instructions:
Write the name of the six categories that God created at the top of the paper. List the names of every animal that you can think of that would fit in each category. You should be able to fill the page with all types of animals.

Did you remember spiders, clams, and dinosaurs? Don't forget that just because dinosaurs may not be alive today, God still created them.

Into what category would dinosaurs fit? They could fit into beasts, winged birds (Pterodactyls), and even great sea creatures (Plesiosaur).

Unfossilized Dinosaur Parts?

Many people are very interested in the dinosaur T-rex. Its full name is Tyrannosaurus Rex. T-rex can be 20 ft long, 50 ft tall, and weigh 6 or 7 tons. Its skull is about 6 ft long. It has a 24 inch foot print and its front fang is 7 inches long. Its brain, however, was only about the size of its front fang.

Dinosaur Fossils May Not Be as Old as Some People Think.

In 1990, people at Montana State University found an almost complete T-rex fossil. Amazingly, some unfossilized red blood cells were found in one of its legs!! This means that the fossil may not be as old as evolution claims.

In 2005, a T-rex fossil was being transported. They had to break one of its thigh bones in order to make it transportable. Again, they found soft, unfossilized tissue inside the dinosaur's bone.

After these two discoveries, Dr. Mary Schweitzer, from Montana State University, found soft tissue in a Hadrosaur. Hadrosaurs are duck bill dinosaurs that are found in North America and China. The soft tissue that she found was like bone collagen of modern specimens.

This evidence challenges evolution's theory that the fossils are 65 million years old. How could soft tissues and blood cells remain soft for that long? Before this discovery, evolutionists had said that soft tissue could only last one hundred thousand years. This evidence suggests that dinosaurs only lived thousands of years ago, NOT millions.

Variation in Animals

There is often confusion when adaptation and evolution are talked about so let's define some terms.

Macro-evolution

is large scale changes in an animal – change from one kind into another kind. An Example would be a fish changing to become a frog or an ape becoming a human. *This type of evolution has never been observed.*

Micro-evolution

is small changes in an animal that allow it to adapt to its environment. An example of this would be a change in hair color or length. The proper term for this is not evolution but adaptation. *This can be observed in animals all the time.*

Example: Picture a group of mice that live in a field. The field is a dark brown color. The mice that live in the field are mostly a dark brown color, though there are some light brown mice. The lighter colored mice usually get eaten first by predators. Over time, the field begins to change color to a light brown or blonde color. The dark brown mice are very easily seen by predators and they would be eaten first because they do not blend into their surroundings. The blonde mice are now better adapted to life in the blonde colored field.

How do these changes come about?

This is where the disagreement between evolution and creation comes into play.

Evolution says that a mutation has occurred in the DNA of the field mouse. Mutations are mistakes and accidents. The mistake changed the mouse's color, allowing it to adapt.

How can an accidental mistake make life better for a mouse? Mathematically it is very, very, unlikely. In fact, mutations almost always create a bad result rather than a helpful change.

Creation says that this change was already programmed into the DNA and it allowed the mouse to change color to ensure its survival in its changing environment.

Again, you can see the theme of evolution--accidents and random chance happenings and the theme of creation--purposeful design.

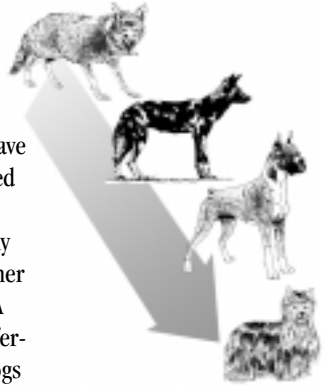
Let's look at Genesis, Chapter 1:21 & 25:

"[21]*And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind: and God saw that it was good.*"

"[25]*And God made the beast of the earth after his kind, and cattle after their kind, and every thing that creepeth upon the earth after his kind: and God saw that it was good.*"

From these verses you can see the categories of animals that God created which we talked about earlier. There is also something else that is important -- the word 'kind'.

How many times is the word 'kind' used?



The word 'kind' gives us a clue to how God may have designed animals. The fact that the word is repeated several times means that it is important. Kind can mean a type of animal. Notice that animals can only reproduce animals of their own kind -- not any other kind. This means that dogs reproduce only dogs. A dog never reproduces a cat. Dogs and cats are different kinds. People and apes are different kinds. Frogs and lizards are different kinds.

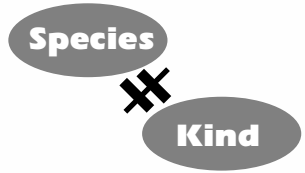
The animal kinds are able to survive and adapt to their surroundings because of the design of their genetic material, DNA. As we learned on page 48, our genetic material has genes that are dominate and recessive. There are genes that are hidden because they are covered up by another gene. Only under the right circumstances would a hidden gene be seen. This is natural variation that is already designed inside the genetic material of a kind of animal.

There can be many variations of hair color or size within the same animal kind which allows it to survive in its special environment. Another example of this is a kind of Manchurian Hare (rabbit). One hare is best adapted to life in the forest and another is best adapted to life in the meadow next to the forest. The forest hare and the meadow hare have breed to form new a hare that is best suited for the boundary in-between of the forest and meadow.

Each of these three hares is adapted to their special habitat. They are three variations of one kind of animal!

Most likely, when God created the animals He did not create the exact colors, sizes, and variations that we see today, but He created the original kinds. An original pair of animals had offspring that have varied throughout the centuries.

You may have heard the word 'species' in science class. Do not confuse 'species' and 'kind'. A kind is not equal to species. A species can be a variation within a kind of animal. For example, several different species of monkeys have actually been traced back to the same monkey "kind".



Design of a Snowflake

Each snowflake is unique -- there are no two flakes that look the same, and each is a marvel of beauty in and of itself.

The white color of snow reflects some sunlight back into space. This keeps the snow cooler and helps keep the earth cooler. God uses snow to maintain the balance of temperatures here on earth.

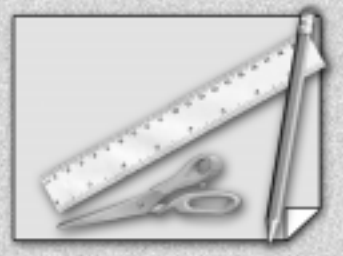
Keeping the snow cool is important because it stores much of the water that the earth needs during the rainless seasons. God has designed snow to hold that water, and then release it later when it melts.

Water stored as snow protects the earth from the massive erosion that would take place if it all fell as rain. The rushing waters would eat away at soil, and sweep away plants.

Snow acts as a protective blanket for the plants and seeds that it covers during the cold winter months.

Koch Snowflake Activity

Materials:



White piece of standard paper

Pencil

Ruler

Scissors

Procedure:

In the center of the paper, using a pencil and ruler, draw an equilateral triangle (having three equal sides) with sides measuring 12cm each. On each side of the triangle, make a mark at 4cm and 8cm. Next, draw another equilateral using the line between the 4cm and 8cm marks as the base. You will now have three new triangles poking out from the sides and base of the original triangle making a six pointed star shape. On each side of the new triangles make marks at the 1.3 and 2.7cm measures. Make twelve new equilateral triangles. Continue. See diagram.

Koch snowflake diagram

Now you can cut out your snowflake and hang it up on your refrigerator, or decorate your room!

From the snowflake activity you can see the design of just one snowflake. Think of all the variations that you could have made. When God made snow, He made it so each flake is different. Animals also have design features that make them unique and specially suited for the habitat that they live in. It is easy to see that God had it all figured out!

Part 2

Salmon are Very Interesting and Unique Fish.

Have you ever seen a salmon?

Where do salmon live?

Do salmon live in more than one place during their lives?

Are these fish important to people? Why?

The Life of a Salmon

In the season of Autumn, salmon lay their eggs in the gravel of the bottom of rivers and streams on the west coast of the United States and Canada. They burry these eggs one to two feet deep.

When the eggs hatch they are called alevins (sac fry). They stay buried in the gravel for a few more weeks and they have a yolk sac attached to them that supplies their food.

When the salmon emerges from the gravel, it is called a fry. They swim to protected areas like a deep pool, around tree roots, undercut river banks, and submerged logs. In these areas, fry eat insects and other small water creatures. They stay in the protected area for several months and gradually grow to be able to swim in swifter currents.

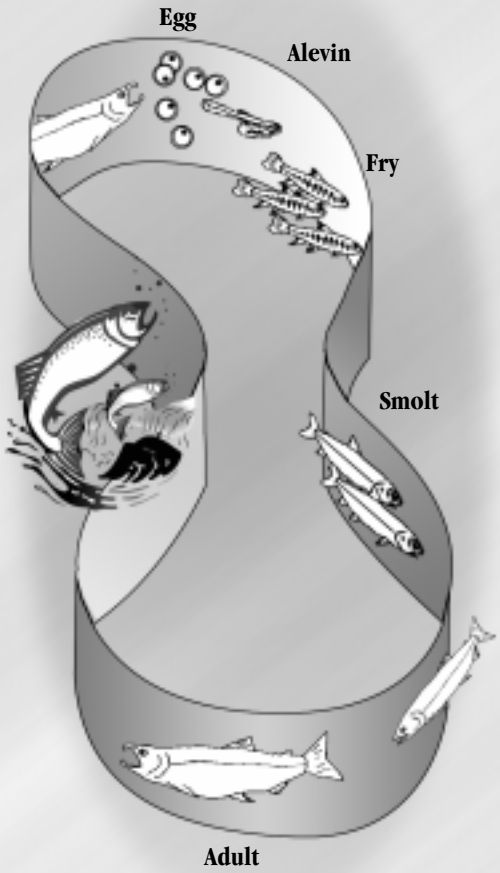
The next stage is called smolts. It is in this stage that they begin to journey downstream towards the ocean. An amazing transformation takes place when they swim downstream. Just before they enter the ocean, there is an area that is called an estuary. An estuary is the place where fresh and salt water meets. It is sometimes called brackish water. The smolt adapts from being a freshwater fish to a saltwater fish! Often the smolt will stay in the estuary adjusting to the salt and growing larger with new things to eat.

Adult salmon swim around the ocean for two to four years. They grow very large.

Near the end of a salmon's life when it is time to lays eggs or spawn, it journeys back to the place it started life.

How do you think that the salmon knows how to find the river of its own birth?

Scientists think that the fish may be able to smell or taste their own river. Scientists also think that it may have something to do with the position of the sun, moon, and stars, and the earth's magnetic field. This is a remarkable ability for the fish to recognize its home.



Lifecycle of a salmon

Before going back up the river, the salmon has to adjust to the fresh water again. Most of them at this point also stop eating. There are many obstacles that the salmon has to swim over, around, or through to make it to its final place.

Chinook salmon are large fish so they lay their eggs in larger gravel. Steelhead are smaller so they lay their eggs in smaller gravel. This ensures that everyone has a place to lay their precious eggs. A female salmon finds a mate and digs a deep hole with her tail and lays her eggs. Then the male salmon fertilizes the eggs and the cycle repeats.

Types of Salmon

Chinook or King

Pink or Humpy

Silver or Coho

Chum

Sockeye or Red

Atlantic salmon or **steelhead** is often listed but are ocean going rainbow trout.

The salmon's life is quite an incredible journey. Yet every year it happens again and again according to an amazing plan. Do you think that God was involved with planning of the lifecycle of the salmon?

Polar bears

Male polar bears can weigh 775-1500 pounds. They are very large bears.

What makes a polar bear unique from other bears?

One thing that makes it unique is its color -- or you could say lack of color. They have two types of hair. Wool-like hair close to the skin to keep it warm and the long, hollow transparent hair that makes the polar bear white. The polar bear's hair appears white because it does not have colored pigment in it -- it is clear. Because of this special property, the hair reflects light helping to blend into the snow.

A strange thing happened in 1979. Three polar bears in the San Diego Zoo turned green! They discovered that there were colonies of green algae living in the hollow hair of the bears. They got rid of the algae by giving them a special bath.

Polar bears have a layer of blubber that is 4 inches thick. This layer keeps them warm and helps them to be able to float when they are swimming. They also have special webbed paws that enable them to swim 4-6 miles per hour.

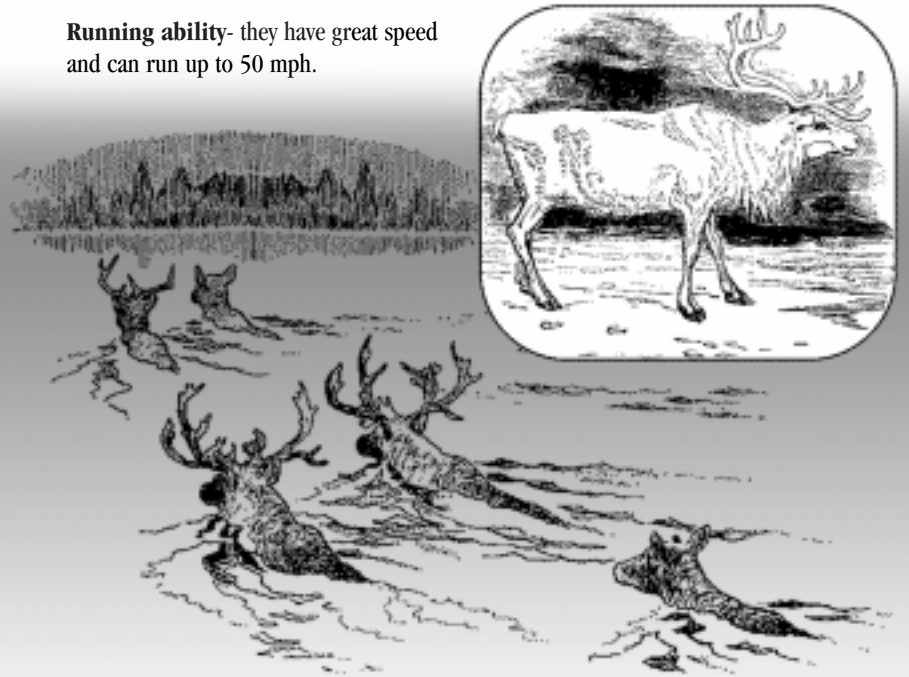
Caribou

Caribou are similar to elk but have some special design features that make them unique. These features involve their hoofs, hair, and running ability. Just as Polar bears have special webbed feet to help them swim better, Caribou also have special hooves to help them swim!

Concaved hoofs- concaved means curved inward. The hoofs are curved in a way that helps them to paddle when they swim and helps them to walk in the deep snow better so that they don't sink down as far.

Hair-They have hollow hair that actually makes them lighter when they swim.

Running ability- they have great speed and can run up to 50 mph.



Porcupine

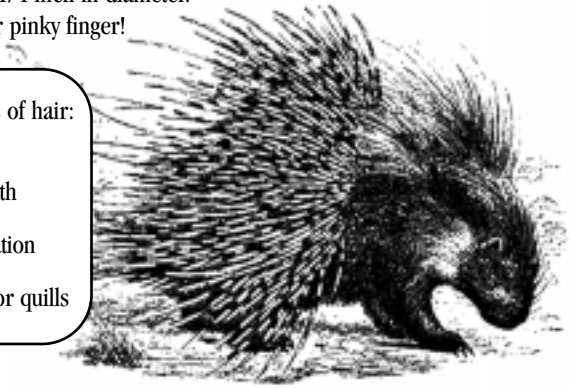
Have you ever seen a porcupine in real life? They are interesting and cute animals. They can be found in North America, part of Central America, and Africa. In North America, they grow to a length of 2-3 feet long (including tail) and have about 30,000 spines or quills. In Africa, porcupines are much larger and have huge quills that can be a foot long and 1/4 inch in diameter.
That is the thickness of your pinky finger!

Porcupines have three types of hair:

A wooly undercoat for warmth

A coat of long hair for insulation

A unique hair called spines or quills



Porcupine self-defense:

They will run into an enemy with their quills or slap them with their tail. The quills are designed with small barbs that spread out when they enter the body of an enemy. The barbs also move the quill deeper into the skin as the animal moves around- nearly an inch a day.

"Ouch" says the porcupine, "I have been stuck by my own quill." This can happen often to a porcupine, but amazingly, the tips of its quills have an antibiotic that fights infection. The Creator thought of everything!

Porcupines don't see very well but they have a very strong sense of smell and use their whiskers to guide them. Their long claws help them climb trees. This process of climbing trees strips bark and limbs and this feeds other animals that live on the ground.

Man's Best Friend-Dogs

Dogs are a great example of the variation possible within one kind of animal.

It is known that wolves are the originators of domestic dogs. There is debate as to how many years ago that people began to breed wolves in order to domesticate dogs. Some scientists say that there was an original wolf stock that God created. This theory of one wolf stock has come from DNA comparisons and could fit a biblical model.

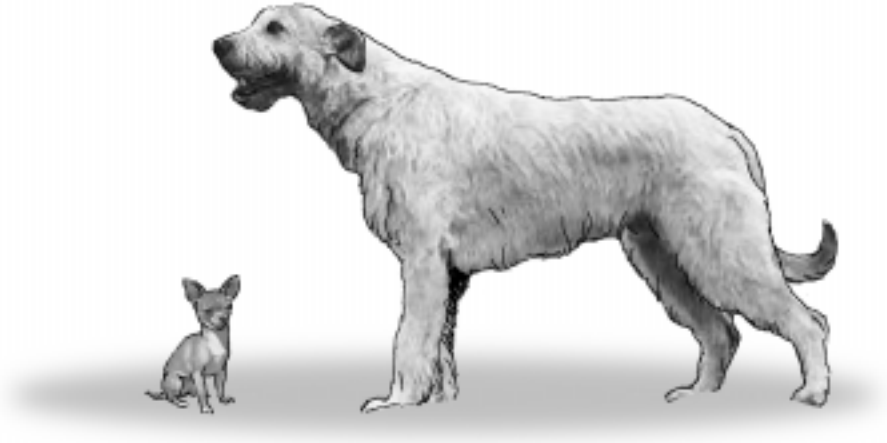
The North American wolf is ancestor to the Eskimo Dog

The Chinese wolf is ancestor to Chows, Toy spaniels and Pekinese breeds

The Indian wolf is ancestor to a large group which includes Greyhounds and Salukis

The European wolf is ancestor to Sheep dogs, Terriors, and related breeds

Dogs vary extremely in size, color, and personality.



The smallest dog breed is the Chihuahua with a height of 6-8 inches. It may have originated in South America. There is historical evidence traced to the Aztec and Toltec civilizations.

The tallest dog breed is the Irish Wolfhound with a height of 35 inches- that is nearly three feet tall. It originated in Ireland and was used for hunting and battle.

Pomeranians can make good companions, English sheepdogs can herd animals, Bloodhounds are good hunters, Dalmatians can help us do work, Labrador Retrievers can be trained as seeing eye dogs, and Rottweillers can be trained to do police work.

There is so much variety when it comes to dogs!

Can you use your own words to describe what the idea of "lots of variety" means?

With all this variety do you see any dogs that are becoming some other kind of animal?

No, the variety just makes more interesting dogs.

Not all animals have such a wonderful variety (think of an alligator, they don't have as many varieties as dogs). All animals have a natural variation boundary that God designed within their DNA. For some animals, it is a wide variety, and for others it's much smaller. This boundary makes sure that a dog remains a dog, and a cat remains a cat.

Boundaries are an important part of life for animals and humans. Those boundaries provide for us and protect us.

Wilderness Express Crossword Puzzle

Across

2. Another name for a King salmon.
4. Dinosaurs may __ be as old as some people think
5. Something that makes polar bears' paws unique from other bears.
8. The smallest dog breed.
10. Another word for micro-evolution.
11. True or False-unfossilized dinosaur parts have been found.
12. Length of a T-Rex's front fang (in inches).
13. There are ___ different categories of created animals.

Down

1. The stage when salmon begin to journey downstream.
3. A word for the Biblical concept that is similar to species.
6. Something that God gave animals and humans to provide and protect.
7. There are many ___ of dogs.
9. A country where hadrosaurs are found.

Solution: