THE WARBLER

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Welcome to the first building coordinator newsletter. I will be sending you a new edition every two months passing along news & ideas I hope you will find useful and informative. If I can ever be of any help, just give me a call at 894-9113.

JUST WHAT CAN I DO??

One area of assistance the Coordinator and Wildlife Education Service Representative could provide teachers is help in developing pre-activities and post-activities for their students when utilizing outreach education areas and resources.

Let's say a teacher will be utilizing a field trip to search for and identify animal tracks. A good pre-activity is to show the filmstrip, Animal Tracks and Signs (FS-32) available from the Wildlife Education Service. The filmstrip is designed to familiarize students with the various signs and marks animals leave upon their passage. It also shows how to make casts of animal tracks for study purposes. A Field Guide to Animal Tracks (Book 4-4) and Field Guide to Tracks of North American Wildlife (Book 4-6) are two excellent resources you may wish to take along on the field trip to assist students in recognizing animal tracks commonly found in Kansas.

A good post-activity would be to make tracks in the classroom with the help of the Replitrack Learning Kit (LK-26) from the Reference Center. Both prints and plaster replications of tracks can be made utilizing Replitracks. Another post-activity would be the Track & Tracking Games (LK-50 A-C). The students learn species names, how to identify tracks in field conditions and predator/prey relationships.

The development of good pre & post activities for outreach experience allows the teacher and students to become more familiar with the curriculum materials and services available through the Wildlife Education Service while insuring both a better opportunity to share a successful educational endeavor. This is just one of the possibilities you can utilize to implement a successful environmental education program for your students and teachers.

--Roland Stein

YOU GOT IT

You asked for it - you got it!! Your responses to the survey on establishing a Satellite Wildlife Reference Center (SWRC) were positive.

Some of you indicated you weren't familiar with the Wildlife Reference Center in Pratt. The center is filled with wildlife and park - related audio, visual and learning materials. The center contains films, filmstrips, video tapes, posters, educational games, computer software, field guides, and a large number of learning kits. All Kansas teachers may borrow these materials. The only cost is return postage. Some of you have already borrowed materials, it would be great to have more.

Twenty-two out of 22 indicated on the survey we should establish a Satellite Wildlife Reference Center. Nineteen said teachers would pick up and return materials. Therefore we decided not to mail out from the Lenexa office (although you can mail it back as long as it comes in before it's due).

Of the materials to have in the Satellite Wildlife Reference Center, here are your choices in order of preference:

1. Videos
2. Learning Kits
3. Skins & Skulls
4. Films
5. Computer Disks
6. Game Kits
7. Books
8. Posters

We plan to have a variety of materials - including a few films. We plan to open the center on February 1st. A catalog will be sent to you soon.

Thank you for your input and cooperation. For the Satellite Wildlife Reference Center to be effective, it must be used. So please let your teachers know the Satellite Wildlife Reference Center is available. We love company.

UNITED WE STAND

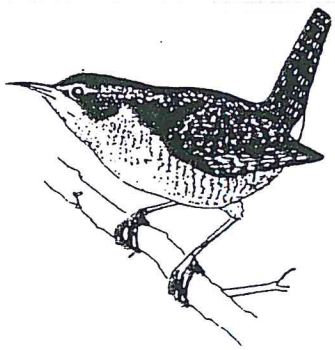
The Kansas City District Office has hooked up with UNITE. Some of you are already on this network and familiar with it. For those of you unfamiliar with UNITE, it is (very briefly) a computer network through Apple Computer that enables schools to communicate and share with each other. Currently 17 schools are on the network. Lesson plans, field trip ideas, resources and references on many disciplines are in the UNITE system. Check and see if your school is involved.

If you are hooked up to UNITE, look for (in the near future) Kansas Wildlife & Parks materials to be put on the system. Eventually we hope to be able to accept Satellite Wildlife Reference Center applications over UNITE - we'll see how it goes. I see much potential and positive outcomes utilizing this system.

MEMORABLE MATERIALS

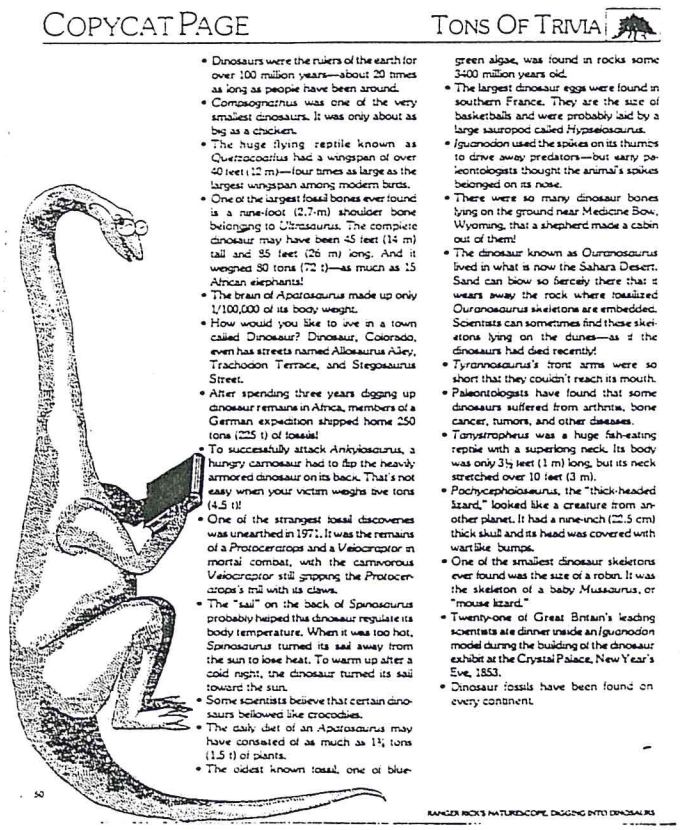
In this section I hope to pass along information on materials I've found to be worthwhile in the natural resources field. Some of you I know are familiar with the National Wildlife Federation's Naturescopes. If you're not, I highly recommend looking through these materials for kindergarten through 7th grade. Each book runs about 70 pages and covers a different topic. Some of the topics include:

Incredible Insects
Digging Into Dinosaurs
Wild About Weather
Birds, Birds, Birds!
Trees Are Terrific!
Astronomy Adventures
Amazing Mammals I
Geology: The Active Earth



Endangered Species
Reptiles & Amphibians
Diving into Oceans
Rain Forests: Tropical Treasures

Naturescopes are chock-full of wonderful information, background materials and interesting and innovative activities for the students. You can copy certain pages with activities, games, puzzles, worksheets and more, to supplement and reinforce. Two copies (reduced) of their 'Copy Cat' pages are below. Check them out. We soon hope to have an entire set available in the Satellite Wildlife Reference Center. If you haven't had a chance to look through them, this will be your chance. I think you'll find Naturescopes to be exciting and very useful materials.



COPYCAT PAGE — TONS OF TRIVIA

- Dinosaurs were the rulers of the earth for over 100 million years—about 20 times as long as people have been around.
- *Compsognathus* was one of the very smallest dinosaurs. It was only about as big as a chicken.
- The huge flying reptile known as *Quetzalcoatlus* had a wingspan of over 40 feet (12 m)—four times as large as the largest wingspan among modern birds.
- One of the largest fossil bones ever found is a nine-foot (2.7-m) shoulder bone belonging to *Ultrasaurus*. The complete dinosaur may have been 45 feet (14 m) tall and 85 feet (26 m) long. And it weighed 80 tons (72 t)—as much as 15 African elephants!
- The brain of *Apatosaurus* made up only 1/100,000 of its body weight.
- How would you like to live in a town called Dinosaur? Dinosaur, Colorado, even has streets named Allosaurus Alley, Trachodon Terrace, and Stegosaurus Street.
- After spending three years digging up dinosaur remains in Africa, members of a German expedition shipped home 250 tons (225 t) of fossils!
- To successfully attack *Ankylosaurus*, a hungry carnosaur had to flip the heavily armored dinosaur on its back. That's not easy when your victim weighs five tons (4.5 t)!
- One of the strangest fossil discoveries was unearthed in 1971. It was the remains of a *Protoceratops* and a *Velociraptor* in mortal combat, with the carnivorous *Velociraptor* still gripping the *Protoceratops*'s tail with its claws.
- The "sail" on the back of *Spinosaurus* probably helped the dinosaur regulate its body temperature. When it was too hot, *Spinosaurus* turned its sail away from the sun to lose heat. To warm up after a cold night, the dinosaur turned its sail toward the sun.
- Some scientists believe that certain dinosaurs bellowed like crocodiles.
- The daily diet of an *Apatosaurus* may have consisted of as much as 1½ tons (1.5 t) of plants.
- The oldest known fossil, one of blue-green algae, was found in rocks some 3400 million years old.
- The largest dinosaur eggs were found in southern France. They are the size of basketballs and were probably laid by a large sauropod called *Hypselosaurus*.
- *Iguanodon* used the spikes on its thumbs to drive away predators—but early paleontologists thought the animal's spikes belonged on its nose.
- There were so many dinosaur bones lying on the ground near Medicine Bow, Wyoming, that a shepherd made a cabin out of them!
- The dinosaur known as *Ouranosaurus* lived in what is now the Sahara Desert. Sand can blow so fiercely there that it wears away the rock where fossilized *Ouranosaurus* skeletons are embedded. Scientists can sometimes find these skeletons lying on the dunes—as if the dinosaurs had died recently!
- *Tyrannosaurus*'s front arms were so short that they couldn't reach its mouth.
- Paleontologists have found that some dinosaurs suffered from arthritis, bone cancer, tumors, and other diseases.
- *Tanystropheus* was a huge fish-eating reptile with a superlong neck. Its body was only 3½ feet (1 m) long, but its neck stretched over 10 feet (3 m).
- *Pachycephalosaurus*, the "thick-headed lizard," looked like a creature from another planet. It had a nine-inch (22.5 cm) thick skull and its head was covered with wartlike bumps.
- One of the smallest dinosaur skeletons ever found was the size of a robin. It was the skeleton of a baby *Mussaurus*, or "mouse lizard."
- Twenty-one of Great Britain's leading scientists ate dinner inside an *Iguanodon* model during the building of the dinosaur exhibit at the Crystal Palace, New Year's Eve, 1853.
- Dinosaur fossils have been found on every continent.

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RANGER RICK'S NATURESCOPE, DIGGING INTO DINOSAURS

COPYCAT PAGE — A LOGIC GAME

John Kempke was at the library doing some research for a school project on mammals. He had chosen to concentrate on these carnivores: polar bears, giant pandas, hyenas, gray wolves, bobcats, river otters, and gray foxes. And by reading through all kinds of books he found out lots of information about each kind of animal. Unfortunately, John didn't keep very good notes. When he got home he realized he had the following hodgepodge of information:

Animal #1: Is native to North America, doesn't have retractile claws, and doesn't spend a lot of time on land.

Animal #2: Is native to North America, walks on its toes, and spends almost all of its time on land.

Animal #3: Doesn't have retractile claws, walks on the flats of its feet, and spends almost all of its time on land.

Animal #4: Is native to North America, walks on its toes, and eats mostly meat.

Animal #5: Doesn't have retractile claws, walks on its toes, and eats meat and a lot of plants.

Animal #6: Doesn't have retractile claws, eats mostly meat, and spends almost all of its time on land.

Animal #7: Is native to North America, spends almost all of its time on land, doesn't have retractile claws, and walks on its toes.

After reading over his sketchy information, John is convinced that he can figure out which animal is which. He remembers that giant pandas eat mostly plants, gray foxes eat a lot of plants as well as meat, but all the other carnivores are pretty strict meat eaters; the bobcat is the only animal on his list that has retractile claws; giant pandas and hyenas are the only ones not native to North America; only polar bears and river otters spend most of their lives away from land; and only two of the animals are plantigrade—the polar bear and the giant panda.

Can you help John figure out which animal is which? And also "fill in the gaps" so each animal's information tells whether or not it:

- is native to North America
- has retractile claws
- spends almost all of its time on land
- is digitigrade
- is a strict meat eater

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RANGER RICK'S NATURESCOPE, AMAZING MAMMALS

LOOK-OUT

Be sure to watch for our latest edition of ON T.R.A.C.K.S.. The winter edition should be in your schools soon. Your own George Creighton was our first guest author - maybe you could be the next??

TREE LEAVES

Many teachers instruct units on trees and plants. The Kansas tree leaf replicas (LK-66) in the Wildlife Reference Center and Satellite Wildlife Reference Center turn tree leaf studies into hands-on materials. These rubber replicas can be used to make plaster casts of Kansas leaves or used with a stamp pad. Use them to study compound versus simple leaves, different types of venation, leaf shapes edges -- and more.

SPEAKING OF TREES.....

I know some of your schools have an outdoor classroom, have started one or are thinking about starting one. Kansas Wildlife & Parks is in the process of developing a statewide program to assist schools with development and enhancement of outdoor classrooms -- more on this in the next newsletter. If your school would be interested in trees or wildflower seed for this spring for planting on your school grounds, give me a call. I need to know if you're interested by January 18th.

JOHNSON COUNTY CONTACTS

We are fortunate in this county to have such high caliber resource people available for you to contact. The following are a few people you should get to know (if you haven't already) because they have wonderful ideas and resources for educators and the general public.

Soils, Conservation:

Debbie Sumner
Soil Conservation Service
930 E. 56 Highway
Olathe, KS 66061
764-1931

Donna Gall
Johnson County Conservation District
930 E. 56 Highway
Olathe, KS 66061
764-1931

Crops, Livestock, Water Quality, Horticulture, Etc.:

Rick Miller
Johnson County Extension Service
1205 E. Santa Fe
Olathe, KS 66061
764-6300

Don Balch
ASCS
928 E. 56 Highway
Olathe, KS 66061
764-1313

Thank you for all your efforts to make the teachers in your building more aware of the natural resource materials and information that is out there -- from Wildlife & Parks and all the conservation organizations. We appreciate all of your time and hard work and look forward to hearing from you soon. !!

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