

THE DINOSAURS OF PANGAEA

PRE-OPENING (<http://www.wyoming.com>)

GO FIGURE (FOOD FOR THOUGHT)

1. How do we know what color dinosaurs were?

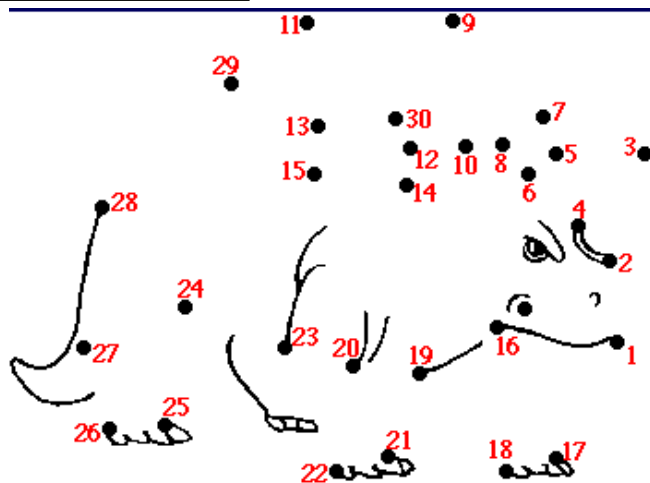
QUICK QUIZ

1. What is the Wyoming state dinosaur?
2. Which dinosaur was said to have two brains?
3. Why are dinosaur skulls lightweight compared to the rest of their bodies?
4. What does "therapod" mean? What kind of dinosaurs does this describe and what are their feet really like?

TRUE OR FALSE

1. The Wyoming Dinosaur Center geologists, who are currently digging in the Morrison Formation, are likely to find remains of a Tyrannosaurus Rex.
2. Dinosaurs hatched from eggs like today's chickens do.
3. Man and dinosaurs lived at the same time.
4. The Tyrannosaurus Rex was the largest dinosaur species.

JUST FOR THE BOYS



OPENING CEREMONY

Dinosaurs in the Garden

by R. Gary Raham

The dinosaurs were quite brave. They strutted over the light dusting of snow on the sidewalk and approached the food. They cast darting glances from side to side, sometimes observing the black, four-legged mammals that lay on the grass and other times eyeing suspiciously the two-legged mammal that stood, partially concealed, behind a shadowy screen. With quick motions, the dinosaurs captured morsels of dog food in their beaks and flew away.

The particular dinosaurs I speak of are commonly referred to as starlings. Their more impressive cousins, such as Apatosaurus and Tyrannosaurus-Rex died out 65 million years ago in a cataclysm that was so pervasive and nearly complete that dinosaurs have become a metaphor for failure. Actually, they were a highly successful group that persisted for 225 million years, counting today's birds.

Tonight, as we think about the future of Scouting, let's take the time to reflect on our own past, as we explore the exciting World of Dinosaurs. Please rise for the Pledge of Allegiance.

SOME INTERESTING FACTS

- The first dinosaur discovered in Wyoming was an *Agathaumas sylvestrus*, a horned plant-eating dinosaur, in 1872.
- T-Rex Wins the Biting Game: A feeding Tyrannosaurus Rex could have chomped down with a force of 3,011 pounds -- perhaps more during an attack. Here's how that compares:
T-Rex...3,011 pounds of force
Alligator...less than 3,000
Lion...937
Man...175
- In 1898, the American Museum of Natural History in New York shipped 30 tons of bones in boxcars from the Bone Cabin Quarry near Como Bluff, Wyoming.
- In 1898, at Nine Mile Crossing of Little Medicine Creek, a paleontologist with the American Museum of Natural History in New York discovered bones that were later identified as a Brontosaurus (now known as Apatosaurus). It took six years of work before it went on display. It was the largest fossil skeleton ever mounted anywhere, but it had no head for 30 years.

<http://www.wyoming.com/>

GAMES

Dino Hunt - a retail game

Primary Activities -- Grades K-3

(you can make this card game yourself!)

DUPLICATE MATCHING:

If your Dino Hunt collection includes a fair number of duplicate cards, a simple recognition activity is to have the younger children match them. Start to lay the cards out in a large rectangle, say six cards wide by as deep as needed. As you show the group the next card, ask them if it should be on its own, or can it go on top of a similar card? They'll eagerly scan the cards on the table, trying to be the first to spot the duplicate. Make sure you have lots of duplicates, though, as the students may get frustrated if the first dozen cards are all unique!

ATTRIBUTE MATCHING:

Younger children learn a lot by sorting cards by type. Ask them to sort dinosaurs by those that use all four legs to walk with versus those that go on two legs. Then separate by Carnivores versus Herbivores, explaining those terms. You can sort dinosaurs by main color, or by those that have horns versus those without horns, and so on.

ALPHABETIZE:

This simple activity is for those learning the alphabet. They won't be able to pronounce the dinosaur names, but they'll have a sense of accomplishment if they can simply sort them alphabetically. Reassure them that this is a necessary first step to being able to master dinosaur names, and they'll be eager to try it!

DESCRIPTIONS:

Pass out one card to each child, and have them write a simple description of the dinosaur: size, color, what it might be eating, etc.

CRAFTS:

As dinosaur-related activities, pass out a card to each student and ask them to draw it on a different piece of paper. Cards can be used as references to make dinosaur hats that resemble the dinosaur head. The class could make a group mobile: each student draws one dinosaur and prints a fact about it on the back, and the teacher assembles them into a mobile. Students can also make "My Own Dinosaur Book" with pictures, facts, and figures such as height and weight (found on the back of each creature card).

MATH:

With the parents' help, have the boys record their own heights and weights. Then choose some sample dinosaurs and figure out how many students it would take to weigh as much as one Deinonychus? Coloradisaurus? Ichthyo-saurus? T. Rex? Or how many Archaeopteryxes would equal one student's weight? Likewise, height: how many students standing on top of each other would it take to be as high as T. Rex? Note that the cards include translations to metric measurements, for those that wish to introduce metric at this time.

COMPARISONS:

How would a chicken egg compare to a dinosaur egg? Can the students spot eggs on any of the cards? How would a dinosaur compare to a house pet? To a lizard? To a bird?

STORIES:

Imagination time! Pass out two or three cards to each student, and help them say the names. Have one student start a story, using one of their cards. Anything goes here -- "I rode one of these to school today" is acceptable! Have the next student continue, working one of their cards into the story. The story can go anywhere at all!

ART:

Draw pictures of the dinosaur habitats. Ask the students if they would have chosen the colors shown on the cards for the various dinosaurs. Ask them to draw and color some the way they would like to see them.

CRAFTS:

Make a class book of dinosaur facts and drawings, with each student responsible for a different dinosaur. The cards can also be used as models for making dinosaur masks near Halloween time.

GEOGRAPHY:

Give each student a world map (without any words) and ten to twenty cards. Ask them to put an "X" on the maps where dinosaur fossils have been found. They can use any reference book or globe to look up countries. Tell them they'll be asked later what country the "X" represents, so they need to memorize that as they make the mark!

GEOLOGY:

Have them sort the cards by time line, and then put the geologic eras in the correct order.

FOSSILS:

Use the opportunity to introduce fossils to the students: how old they are, how they're formed, where they're found, etc.

STORIES:

Lots of opportunities here!

Pass out a card to each student and ask them to tell a story about what would happen if such a creature came to their school that day. Have each student tell only a few sentences before asking the next student to take over, using the next card.

Round Robin story: break into four-student groups. Give each group four cards, in the center of the group. Have them each write a story about the dinosaurs -- whatever they want -- for two minutes. Then

have them pass their story to the student on their left, so each now has a different student's story. Give them two minutes to read what the other wrote, then have them write for two minutes, continuing the story where the other student left off. Do this until all four students have contributed to all four stories. Read them out loud to the class.

JOKES/ RIDDLES:

Intermediate age students love jokes and riddles -- give them each four cards and have them write a joke or riddle about their favorite.

KIDS SAY THE DARNDEST THINGS! (misspellings left in on purpose)

What Happened to Dinosaurs? Adults Might Never Guess But Kids Will... <http://www.wyoming.com>
We asked kids in Wyoming to send their ideas about dinosaur extinction last spring. Here are some of our favorite excerpts:

"Millions of years ago dinosaurs ruled the earth. Now kids pretty much do."

- Anna Zupan, 5th grade, Lucerne School, Thermopolis

"What happened to the dinosaurs? No one really knows, but based on the facts scientists discovered, we can come up with many different ideas about it."

- Angel Lajeunesse, 6th grade, Hudson Elementary School, Hudson, Wyo.

"There are many more stories, you choose your own, but I believe dinos still roam in a place undiscovered or in the locknest or in underground tunnels that make their home."

- Jeri Hawk, 4th grade, Deming Elementary, Cheyenne, Wyo.

"I think as the years passed dinosaurs couldn't keep up with the atmosphere around them."

- Vincent Trujillo, 4th grade, Deming Elementary, Cheyenne, Wyo.

"I don't have any theories of my own. The only thing I know is that God probably got board with dinosaurs so he made something huge that killed the dinosaurs."

- Alisa Carswell, 5th grade, Lucerne School, Thermopolis

"A huge herd of Tyrannosaurus Rex decided to give the Stegosaurus' a scare ... so the Stegosauruses had to find a home far away. So they dug a deep trench into the earth about 134,345,983,900 miles deep. This action damaged the earth's plates which caused the clash of the continents."

- Chelsey Amini, fifth grade, Lucerne School, Thermopolis

"Imagine if dinosaurs hadn't died. Humans wouldn't be here. Dinosaurs would be in charge of the world. They might not have developed intelligent brains yet; but they would be smart enough to seek shelter when a natural disaster happens. Of course they would live through it and the earth would over-populate with dinosaurs. Finally dinosaurs would die and humans would start off a couple million years late.... Some people think that dinosaurs went into a parallel dimension. I don't think that is a very good theory but it could be true."

- Jonathon Johnson, 6th grade, Powell Middle School, Powell, Wyo.

"The word "dinosaur" itself means terrible lizard. To some scientists it probably means "terrible trivia."

- Jeff Segraves, 5th grade, Lucerne School, Thermopolis.

Silly poem

The Dinosaurs' Dinner, by Dennis Lee

Allosaurus, stegosaurus, brontosaurus, too
all went for dinner at the Dinosaur Zoo.

Along came the waiter, called Tyrannosaurus Rex,
gobbled up the table, cos they couldn't pay their checks.

GAMES

Catch the Brachiosaurus' Tail

Two single lines are formed with each boy's hands on the shoulders of the boy in front, to form the brachiosaurus. Until the signal "GO" is given, the boys must remain in a straight line. The leader begins the countdown – "102030GO". The "head" of each brachiosaurus then runs toward the tail of the other one, trying to catch the last man. The whole dinosaur must remain unbroken. If anyone lets go, the brachiosaurus' body is broken and it dies (this might explain the TRUTH about extinction). Then, a new brachiosaurus must be formed, with the head becoming the tail and the next boy in line having a turn at being the head. If, however, the "head" player touches the tail, he may continue to be the head.

Variation: Form one brachiosaurus and have it try to catch its OWN tail.

Dinosaur Stalking

One boy is the dinosaur and the other is the caveman. They are blindfolded and placed at opposite ends of a long table. At the signal to start, they begin to move around the table. The object of the caveman is to catch the dinosaur. Neither one may move away from the table. This is a fun game for spectators as well as for those who play.

Duck Fight

Opponents, facing each other, squat about 4 feet apart. Each one grasps both ankles with hands and tries to bump the other over or make his opponent release his hands.

SONGS

The Flintstones Song

Flintstones, meet the Flintstones,
they're the modern stone-age family.
From the town of Bedrock, they're
a place right out of his-to-ree.
Let's ride with the family down the street,
through the courtesy of Fred's 2 feet.
When you're with the Flintstones,
have a yabba-dabba-do-time,
a dabba-do time,
You'll have a real good time!

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There are Dinosaurs All Around

Tune: It's a Small World
There's a diplodocus and triceratops,
an ultrasaurus and protoceratops.
They eat plants all around
from the trees and the ground.
There are dinosaurs all around.

CHORUS:

**There are dinosaurs all around,
there are dinosaurs all around,
there are dinosaurs all around,
everywhere you look.**

There's a tyrannosaurus and allosaurus, too.
And a megalosaurus is looking at you.
They eat meat – better run
or you'll be eaten by one.
There are dinosaurs all around.

CHORUS

Prehistoric Parade

tune: If You're Happy and You Know It
The dinosaurs once roamed throughout the land
Throughout the land! (shout it out loud)
the dinosaurs once roamed throughout the land
Throughout the land!
It was, oh, so long ago,
now they're all extinct, you know.
The dinosaurs once roamed throughout the land.
Throughout the land!

Tyrannosaurus was a mighty beast

Grr-owl!!

Tyrannosaurus was a mighty beast

Grr-owl!!

It measured 40 feet

weighed six tons and gulped down meat

Tyrannosaurus was a mighty beast

Grr-owl!!

Stegosaurus carried plates upon its back.

Clack, clack (say it loudly while clapping hands behind back)

Stegosaurus carried plates upon its back

Clack, clack

Its brain was very small

it was hardly there at all!

Stegosaurus carried plates upon its back

Clack, clack

Hadrosaurus could bellow, grunt and snort.

Snort, snort (make snorting, pig-like sounds)

Hadrosaurus could bellow, grunt and snort

Snort, snort

It munched on leaves and fruit,
with its funny, duck-like snoot.
Hadrosaurus could bellow, grunt and snort.

Snort, snort

REPEAT FIRST VERSE

THINKING TIME

Ancient Advertising

Many companies use dinosaurs in their advertising. For example, during the 1930s, Sinclair Oil adopted a dinosaur as their trademark. They felt it was a great way to symbolize their claim that “the oldest crudes make the finest lubes.” Here’s an activity that will give the den a chance to create their own dinosaur ads.

Divide the den into groups of 3 or 4 Cubs each and tell them to pretend that they are advertisers who have been hired to promote a product. Dinosaurs, or some aspect of the dinosaurs’ lives, must be the focal point of the ad the boys devise. The leader can either assign each group a product and a dinosaur-related concept, or let the boys come up with their own ideas.



To present their ads, each group can create posters, complete with slogans and artwork, or they can make up television commercials. Writing a song would be great, too. Share the posters and/or commercials at the monthly Pack meeting.

Examples of the kinds of ad slogans dinosaurs could stimulate:

- Don’t get stuck with a fossil – buy XYZ Computer Products for the latest in home computer technology!
- Attention, all you heavy-duty meat eaters! Come to the Grand Opening of the Canosaur Café! Our menu has 47 all-meat dishes from which to choose!

CHEERS

Pterodactyl: Flap your arms and say “Honk! Honk! Honk!”

Hugeness Cheer: Each successive dino name is LOUDER “Apatosaurus! Stegosaurus!! Gigantosaurus!!!”

Dinosaur Cheer: Roar, Hiss, Roar, Hiss,

Tyrannosaurus Applause: Stand up, make your *hands* into a 2-fingered claw held in front of your chest. Stamp your feet alternately, left, right, left, right, left, right. Roar LOUDLY while clapping “claws.”

Quick Applause: Have group remain seated, tell them this is to be a very quick applause, “GOOD, BUT QUICK!” Then have the group clap their hands ONCE as loud as they can!

JOKES AND RUN-ONS

- What do you call a blind dinosaur? “*Do-you-think-he-saur-us*”
- What do you call a blind dinosaur’s dog? “*Do-you-think-he-saur-us-Rex*”
- How do you call a dinosaur? “*VERRRRRY carefully!*”

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STORY (audience participation)

I x k j

The Big, Tough, Fast, Tyrannosaurus

Tyrannosaurus: ROAR
Triceratops: Rumble, Rumble, Rumble
Pteranodons: Swish, Zoom!
Gigantosaurus: Boom! Boom! Boom!

Once upon a time, there was a young **Tyrannosaurus**. He thought that he was the biggest, toughest, fastest dinosaur in the world. One day, he decided to see the world. He saw a great big herd of **Triceratops**. The **Tyrannosaurus** lumbered up to the herd, but the **Triceratops** all aimed their sharp pointed horns at him. He said, "Excuse me very much," and he wandered off.

The **Tyrannosaurus** lumbered on until he came to a cliff with a flock of **Pteranodons** flying above it. He ran after the **Pteranodons** but the **Pteranodons** were too fast and they easily flew away.

The **Tyrannosaurus** lumbered on a little further until he came to a great gray wall and bumped up against it. A voice said, "who bumped into me?" A head on the end of a HUGE snake-like neck poked over the big gray wall and said, "oh, hello there, little Tyrannosaurus, I'm **Gigantosaurus**, the biggest dinosaur of them all."

After seeing the **Triceratops** and the **Pteranodons** and the **Gigantosaurus**, he no longer thought that HE was the biggest, toughest, fastest dinosaur of them all. But he DID think that he was the biggest, toughest, fastest **Tyrannosaurus** of them all!

CLOSING

We have seen many "dinosaurs" tonight helping to show how the boys of our Pack have progressed. We have learned a lot about the past and had lots of FUN, too. Let us all keep up the good work and help our boys along the Cub Scout path. Remember what happened to the dinosaurs – they became extinct. Let's not get stuck in the mud like the "Terrible Lizards" of old – remember to always do your best as you travel down life's path.

ANSWERS

GO FIGURE!

1. How do we know what color dinosaurs were? We don't. Educated guesses are based on where a dinosaur lived, the plant life and surroundings, and how it may have tried to hide itself. Sometimes this is based on animals today and how they blend or stand out in their surroundings. Look at the coloring of a crocodile, how its skin mimics the color and texture of an old log floating in a swamp. On the other hand, many birds are very brightly colored. This is often a way for them to attract mates. So it is possible that some may have been colored to camouflage themselves while others were more brightly colored.

QUICK QUIZ

1. Triceratops
2. The Stegosaurus's brain in his skull cavity was the size of a Ping-Pong ball. The "other brain" was said to be along the base of the spinal cord. But these were actually just swellings in the nerve cords.
3. Dinosaur skulls are lightweight because they had many 'windows' or hollow areas.
4. Therapod means "beast foot," and includes the giants Allosaurus and T-Rex. But their feet are more like modern birds. Ornithipod means "bird foot," but dinosaurs in this group have feet more like mammals. Makes no sense but that's the way it is!

TRUE OR FALSE

1. False. They are not likely to find a T-Rex. The Morrison Formation was formed in the Jurassic period about 150 million years ago. The T-Rex is from the late Cretaceous period about 68 to 65 million years ago.
2. False. For years, Tyrannosaurus Rex appeared to be the largest dinosaur. But discoveries in South America in 1995 and Africa in 1996 have unearthed even larger creatures. Gigantosaurus carolinii, found in Argentina, may be as long as 43 feet and may have weighed 8 tons. Africa's Carcharodontosaurus saharicus, found in the Sahara Desert, may have been 45 feet long and weighed 8-10 tons.
3. False. A few tiny mammals lived at the time of the dinosaurs. But humans do not appear to have been around at that time.
4. True. At least many dinosaurs appear to have hatched from eggs. Eggs range in size, some of which are smaller than today's ostrich eggs. (For more information on dinosaur eggs, see National Geographic May 1996 or Wyoming Dinosaur Center newsletter "Bones," September 1996.)

Many thanks to Mt. Baker Council, Everett, WA, 1997 Powwow Book

National Capital Area Council, Bethesda, MD, 1996 Powwow Book

and the following web sites:

<http://destiny.esd105.wednet.edu/students.html>

<http://www.rom.on.ca/eyouths/fosintro.htm>

<http://search19.proxy.aol.com:8010/post-query/Grolier/Grolier/9833>

<http://www.emory.edu/GEOSCIENCE/HTML/Dinotraces.htm>

<http://www.io.com/sjgames/dinohunt/>

<http://www.dinofest.org/>

<http://www.dinosauria.com/jdp/jdp.htm>

<http://www.dinosauria.com/>

<http://www.rmwest.com/resource/dinowww.htm>

<http://www.cyberhighway.net/~bbarnard/>

<http://www.ucmp.berkeley.edu/diapsids/dinolinks.html>

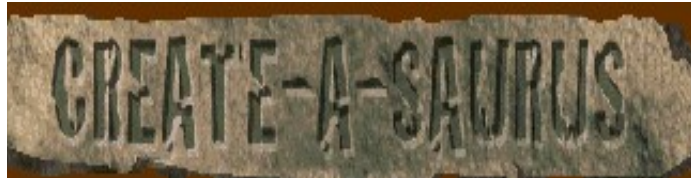
[**http://www.cpmonline.com/pangaea.html**](http://www.cpmonline.com/pangaea.html)

<http://www.cpmonline.com/doplinks.html>

<http://www.adventure.com/kids/dinosaurs/>

<http://www.geocities.com/CapeCanaveral/6399/>





CRAFTS