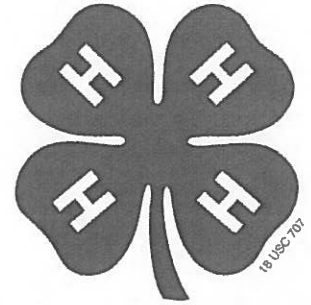


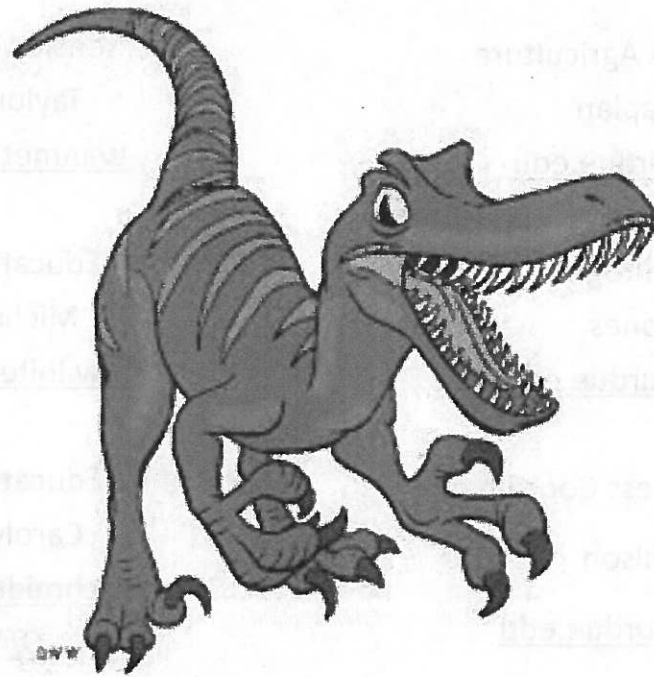
PURDUE
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Mini 4-H

DINOSAURS



An Introduction to 4-H for Youth in Grades K, 1 & 2

Developed by Purdue Extension—Elkhart County

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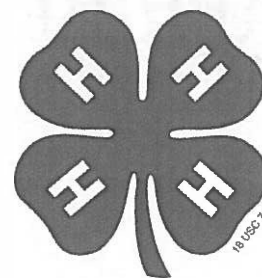
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OUR STAFF

Mini 4-H Helper's Page



Welcome to the Mini 4-H Program! Mini 4-H is designed for children in grades K-2 to explore a variety of project activity areas and to interact with caring adults and other children.


Children receive this project activity manual when they enroll in Mini 4-H. This manual, and the manuals on various other topics, will provide fun, age-appropriate learning activities throughout their year(s) in Mini 4-H.

As a Mini 4-H adult helper, your job will be to guide and encourage each child through the activities. A wide range of activities is provided to allow you to choose the ones most appropriate for the children you are working with. It is strongly suggested that you do not complete the activities for them. Instead, help them, guide them, work with them, and let them do all that they possibly can. 4-H believes in allowing children to learn by doing. The Mini 4-H project activities are hands-on learning opportunities designed to provide a meaningful educational experience for youth.

Additionally, the Mini 4-H program is set up to allow children to display a project activity that is based upon information in this manual. Some children may want to exhibit at the fair. The fair is an exciting week that allows community youth to showcase their enthusiasm for learning. Children may choose to display a project activity they did themselves or one they did with a group. Other children may choose to showcase their work in other ways, such as displaying it in a special place in their home.

Mini 4-H is fun! Children will certainly enjoy it! You can have fun too, by guiding and helping as children participate in the program. Encourage and praise the children as they have fun learning and sharing with you. If you have any questions regarding Mini 4-H or other 4-H programs, please contact the Extension Office in your county.

Helper's Tips



The Mini 4-H program can be used with individual children, but it works best when used in a group of 2 or more children. Children working cooperatively in groups develop positive images of themselves and their ideas. Other ways adult helpers can maximize the benefits of Mini 4-H are to:

- **Work on a subject interesting to the child by encouraging children to choose the content area.** Look through this manual and choose the project activities based on the interests and skill levels of the children.
- **Relax and have fun.** Some children will want to finish their activities, others may not. There is no need to pressure children of this age to finish an activity, because the real learning takes place while they participate in the activity and interact with others. The finished product should not be the main focus. The knowledge children gain while they explore new areas and experiment with new ideas should be the primary goal.
- **Remain flexible and adapt to the changing needs of the children.** Restlessness or boredom may indicate a need to stop the activity and come back to it later.
- **Encourage the children to talk and work with each other.** Children learn best when they are encouraged to freely share their reactions and observations. You may want to ask the children about what they did during an activity, what happened, what was the most difficult, what was the easiest, and what they liked the most.

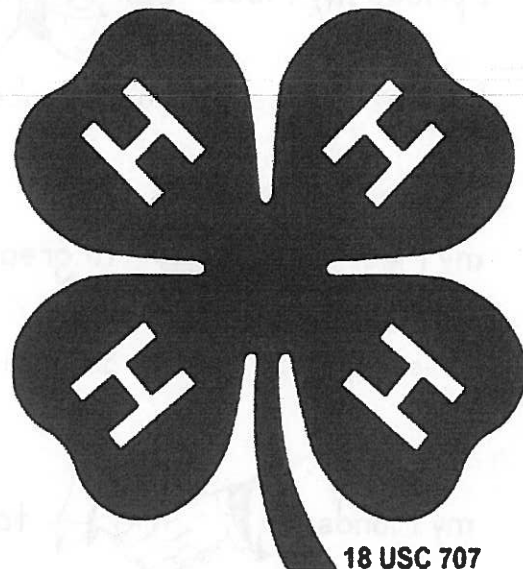
This manual contains activities for children that allow for a wide range of abilities and provide practice for developing a variety of skills.

Mini 4-H'ers Page

Mini 4-H'ers have lots of fun! There are many activities for you to explore. You can try new things. You can share them with your friends and family.

Here are some things to know about 4-H:

The 4-H symbol is a four-leaf clover with an "H" in each leaf. Clover is plant that grows in fields, yards, and along roadsides. Most clovers have three leaves. Sometimes, if you look very carefully, you may get lucky and find a special clover with four leaves. A four-leaf clover is used as the symbol for 4-H to let everyone know 4-H is a special kind of group.



The 4-H colors are green and white. The four-leaf clover is green and the "H" in each leaf is white.

A group motto is a saying that tells people what is important to the group. **The 4-H motto** is "To make the best better." When something is better than all of the others, it is the best. Think about a time when you did your best. Maybe you threw a ball farther than you have ever thrown it before. Now, think about some ways you could do better. You may be able to throw farther by practicing for a while or by watching someone who can throw farther than you to see how they throw so far. Even if you throw the ball farther than you have ever thrown it before, there are still ways that you can do better the next time. 4-H encourages you to always try to do better, even if you are doing the best you have ever done.

The 4-H Pledge

A pledge is a promise you make to yourself and to the people around you. The 4-H pledge is in bold print below. Under each line of the pledge there are words telling what the pledge means.

I pledge my **Head**  to clearer thinking,

I promise to use my head to make good choices.

my **Heart**  to greater loyalty,

to use my heart to be a good friend.

my **Hands**  to larger service, and

to use my hands to do helpful things for others.

my **Health**  to better living,

to take care of my body and to show others how to live in a healthy way.

for my club, my community,  my country, and my world.

to help my group, my community, my country, and my world be happy and safe for everyone.



WHAT ARE DINOSAURS?

Dinosaurs are very large animals that lived on Earth many years ago. They were a lot like the reptiles we see today (lizards and alligators) but they were very large. We have found fossils of their bones so we can guess what they must have looked like.



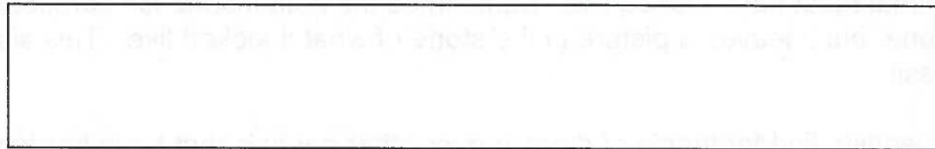
Activity 1 – HOW BIG IS A DINOSAUR?

Materials needed for this activity:

50 feet of string tape ruler scissors scrap paper

What you will do:

1. Cut the scraps of paper into long rectangles, about 5 inches by 1 inch (see sample below).



2. Create a chain using the scraps of paper by making a loop out of the first strip of paper and taping it into a circle.
3. Loop the second strip through first and tape it together. You have now started a paper chain.
4. Continue to make your chain longer until it is as long as the string (50 feet). This is as big as a dinosaur.
5. Make another chain as tall as you are.
6. Look at the chains together. Lay them out in your yard.

What did you learn?

Which chain is larger? _____

Can you think of anything as large as your dinosaur chain? _____

What? _____

How many of your chains would it take to equal the dinosaur chain? _____



Activity 2 – FOSSILS

Fossils are bones, eggs, or plants that have turned to stone. They look just as they did many years ago and they give us an idea of what the plant or animal must have looked like. Sometimes the actual bone isn't preserved in stone, but it leaves a picture in the stone of what it looked like. This also is a fossil.

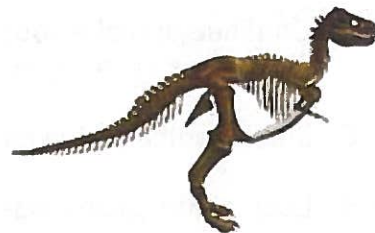
Scientists find footprints of dinosaurs or other animals that have hardened into rock. They can identify the animals from these remaining footprints. Let's save your handprint as it is today.

Materials needed for this activity:

Small objects such as bones, leaves, twigs, shells

Plaster of Paris

A shallow dish or plate





Activity 3 – Types of Dinosaur?

There were two groups of dinosaurs. We know which group they belonged to by the shape of the hip bones found in their fossils.

One type ate mostly meat. Their front feet were very small and looked like hands, and their tails helped them balance as they walked on their two hind legs. They had big heads and very sharp teeth. They are called “bird-hipped”.

The other type of dinosaur ate plants and walked on all four feet. They often had long necks to help them reach the leaves at the tops of trees. Because they ate mostly plants, their teeth were weak. These dinosaurs were called “lizard-hipped”.

Materials needed for this activity:

crayons dinosaur pictures (see following pages)

What you will do:

1. Read about different dinosaurs and color the pictures.



What you will do:

1. Prepare the Plaster of Paris and pour it into shallow pans or meat trays.
2. Place your objects into the plaster and let the plaster dry a little.
3. Remove the objects and let the plaster dry completely.
4. When the plaster has dried completely, you will have a fossil print.
5. Make a fossil or your handprint as it is today. Repeat steps 1-4 pressing your hand into the plaster.

What did you learn?

Of what did you make a fossil?

Have you ever seen a "real" fossil? _____

Where can (did) you go to see real fossils today? _____

Do you think if a scientist found your handprint they could identify it as a young person? _____



Dino-Color

Ornithischia

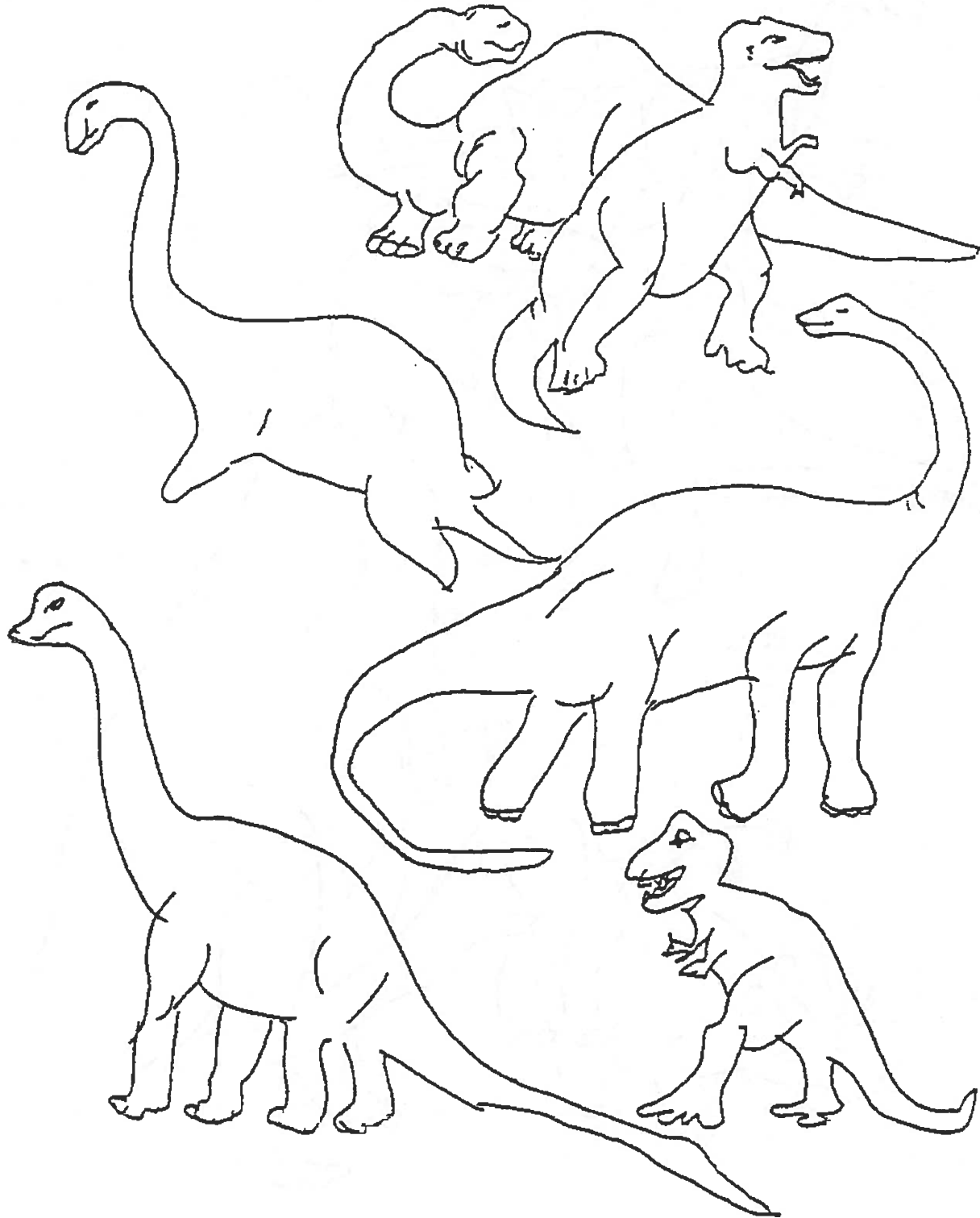
(orn-i-thiss-kee-a) means *bird-hipped*. These are the duck-billed, armored and horned dinosaurs and their relatives.



Dino-Color:

Saurischia

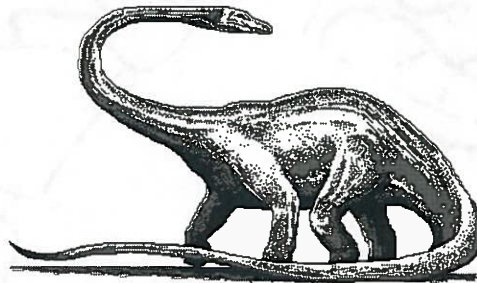
(saur-iss-kee-a) means *lizard-hipped*. These are the giant long-necked, small-headed plant-eaters and the short-necked, big-headed, two-legged meat eaters and their relatives.



What did you learn?

Can you name any dinosaurs from the “bird-hipped” type? _____

Can you name any dinosaurs from the “lizard-hipped” type? _____



Activity 4 – DIFFERENT DINOSAURS

There were many different kinds of dinosaurs. They were different sizes. Fossils tell us about these different dinosaurs. You can go to big museums to see fossils of these giant dinosaurs and imagine what they must have looked like when they roamed the Earth.

Materials needed for this activity:

crayons dinosaur pictures (see following pages)

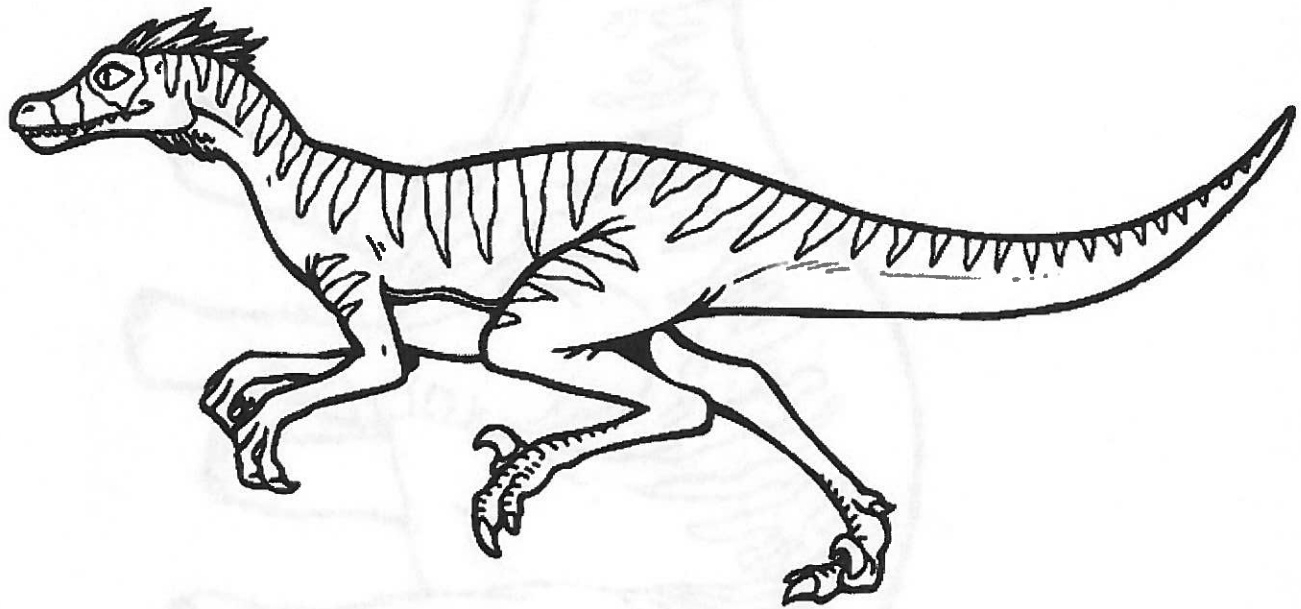
What you will do:

1. Read about the special dinosaurs and color the pictures.

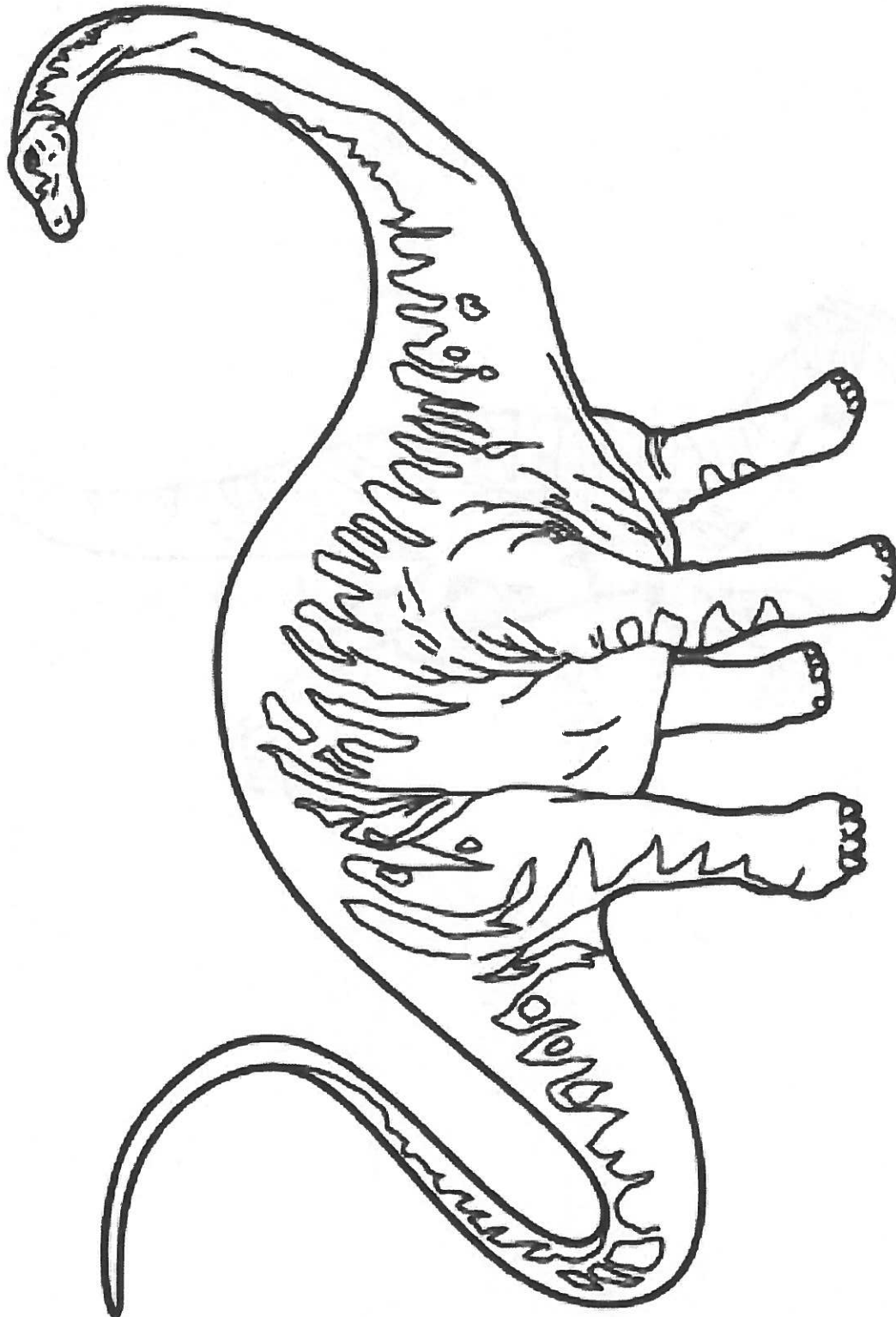
Stegosaurus: ("Covered lizard") The Stegosaurus was a plant eater. It was known for the plates on its back and the spikes on its tail. It was about 20 feet long.



Diplodocus: (Double beamed) This dinosaur was a plant eater. It is thought to be the longest of all the dinosaurs at 87 ½ feet long.



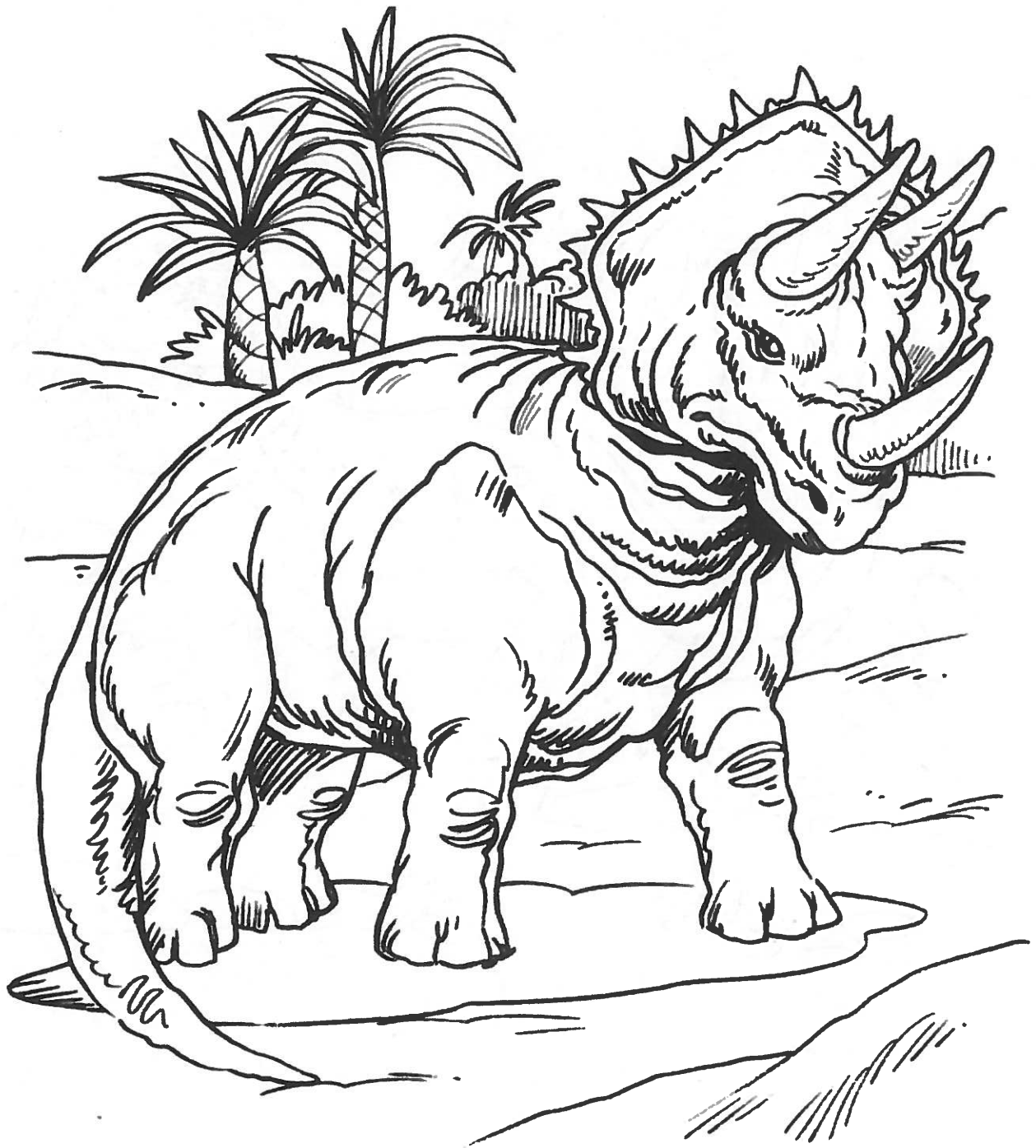
Velociraptor: (swift, speedy thief) The Velociraptor was a fierce, fast, meat-eater. It had sharp teeth and claws on all fingers and toes. It was about 6 feet long and 3 feet tall, very intelligent and may have hunted in packs.



Tyrannosaurus: (King of the tyrant lizards) This was the largest of all the meat eating dinosaurs. It was about 50 feet long and about 20 feet tall.

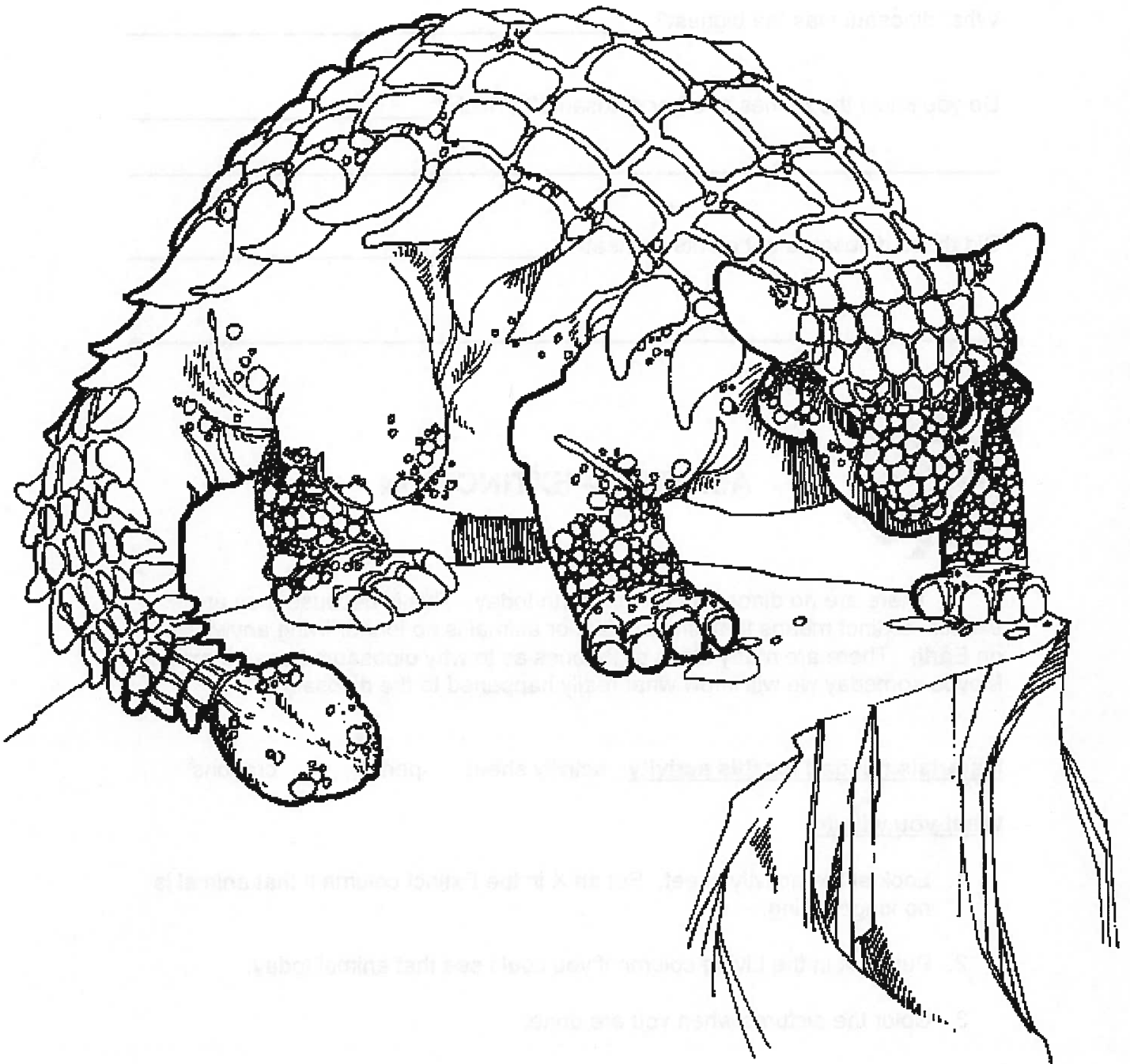


Triceratops: (Three-horned face) These dinosaurs were plant eaters. The special bone formed a shield on the skull of this peaceful dinosaur.



Triceratops

Ankylosaurus: (Curved lizard) This was a slow moving plant eating dinosaur. It was about 15 feet long. The special boney plates on his back could protect him and the club-like bone on his tail was used as a weapon against his enemies.



What did you learn?

What is your favorite dinosaur? Why? _____

What dinosaur was the biggest? _____

Do you know the names of other dinosaurs? Which? _____

Did these dinosaurs eat plants or meat? _____



Activity 5 – EXTINCTION

There are no dinosaurs on the Earth today. This is because they are *extinct*. Extinct means that kind of plant or animal is no longer living anywhere on Earth. There are many ideas or theories as to why dinosaurs became extinct. Maybe someday we will know what really happened to the dinosaurs.

Materials needed for this activity: activity sheet pencil crayons

What you will do:

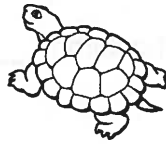
1. Look at the activity sheet. Put an X in the Extinct column if that animal is no longer living.
2. Put an X in the Living column if you could see that animal today.
3. Color the pictures when you are done.

Reptiles

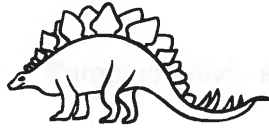
Extinct

Living

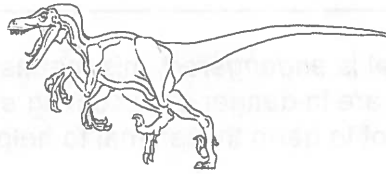
Turtle



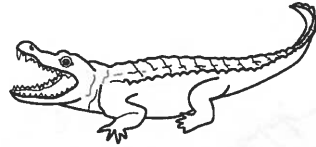
Stegosaurus



Velociraptor



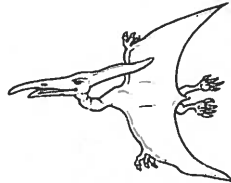
Crocodile



Snake



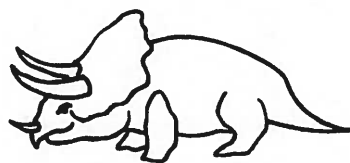
Pteranodon



Lizard



Triceratops

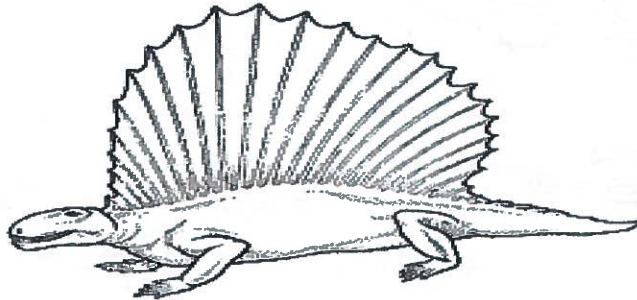


What did you learn?

What was one animal you marked in the Extinct column? _____

What was one animal you marked in the Living column? _____

Note: When you hear that an animal is *endangered*, this means that there are very few of that animal left and they are in danger of becoming *extinct* like dinosaurs. We need to be careful not to harm this animal to help them not become extinct.



Activity 6 – DINOSAUR NAMES

Dinosaur names show the special characteristics about the dinosaur. The long names are made up of small pieces that have special meanings (prefixes and suffixes).

Materials needed for this activity: none

What you will do:

1. Look at the list of dinosaur prefixes and suffixes.
2. Choose some dinosaurs and look at the parts of their names.

Prefixes

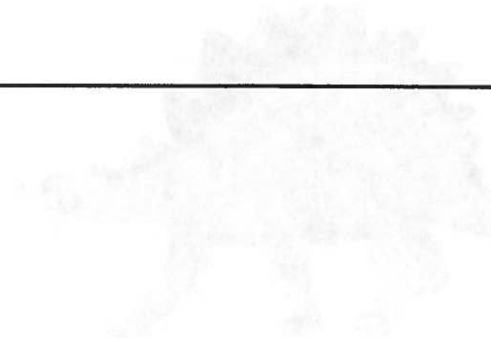
Allo.....	difference
Ankylos.....	hook, joint
Cerato.....	horn
Coel.....	cavity
Compo.....	pretty
Compso.....	elegant
Di.....	two
Dino.....	terrible
Metros.....	measure
Oden.....	tooth
Ops.....	eye
Ovi.....	egg
Para.....	similar
Paleo.....	old
Ptero.....	wing, feather
Stegos.....	roof, cover
Tri.....	three
Tyrannos.....	tyrant
Velocis.....	swift, speedy

Suffixes

Dactyl.....	finger, toe
Odon.....	tooth
Physis.....	origin, natural form of a thing
Raptor.....	thief
Rex.....	king
Saurus.....	lizard

What did you learn?

What are two dinosaurs that you chose and what do their names mean? Were these good names for them?





What to Exhibit

Dinosaurs

Here is a list of projects that can be shown at the Fair. Pick *one* of the projects you would like to exhibit at the fair. You do not need to make the projects in special order. If you have any questions about your projects, contact your leader or the Extension Office. There are people there who can help you.

Complete one of the following for your Fair exhibit.

1. Make a dinosaur poster. Your poster should be 22"L x 14"H, displayed horizontally. Find pictures or drawings of any two dinosaurs. They do not need to be dinosaurs from this manual. Answer the following four questions about your dinosaurs. You may need to check the library for some of these facts.

A. Name of dinosaur

B. Size of dinosaur

C. Weight of dinosaur

D. Type of dinosaur

2. Make a Dino-Diorama in a standard size shoebox. Finish the inside to look like the Earth when they dinosaurs were alive. Use paint, paper, leaves, twigs, rocks, or whatever you can find. Make models of dinosaurs and put them in your dino scene. Use clay or paper. You should cover the front of your diorama with clear plastic. *Use your imagination!*

For more information on how to label your project, when to enter it in the Fair, and where your project needs to go, please contact the Extension Office.

