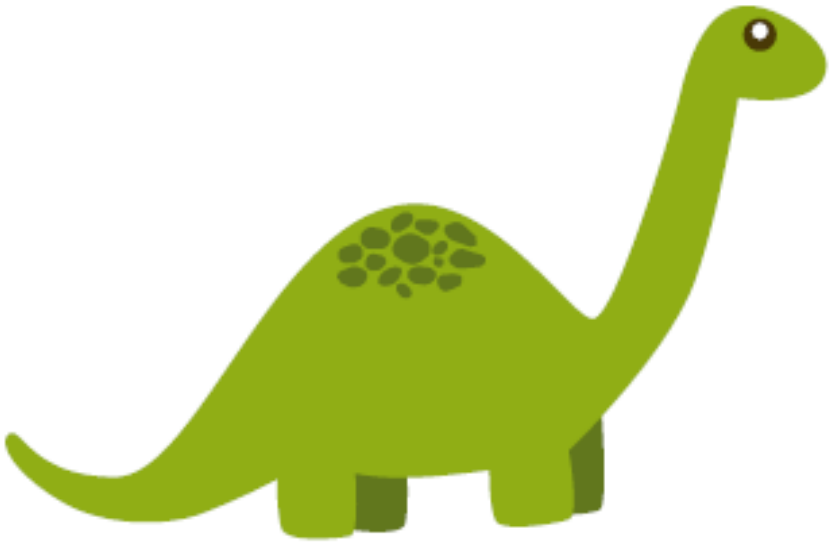
PURDUE UNIVERSITY | Extension - Elkhart County

# Mini 4-H

# DINOSAURS



A replacement manual will cost $1.00.

## An Introduction to 4-H for Youth in Grades K - 2

Developed by Purdue Extension – Elkhart County
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# Elkhart County Mini 4-H Dinosaurs Manual
## Revised September 2015

# 4-H Facts

**<u>The 4-H Symbol</u>: A four leaf clover with an "H" in each leaf.**

**<u>4-H Colors</u>: Green and White**

**<u>The 4-H Motto</u>: To make the best better!**

**<u>The 4-H Pledge</u>:**

**I Pledge**
**My Head to clearer thinking**
**My Heart to greater loyalty**
**My Hands to larger service**
**My Health to better living**
**For my Club,**
**My Community,**
**My Country,**
**and my World.**

# Mini 4-H

Welcome to *Mini 4-H!* You are now a member of the Elkhart County 4-H family! We hope that you will have lots of fun learning new things in your 4-H career.

*Mini 4-H* is designed for youth in Kindergarten through Second grade. It will give you a taste of the 4-H program as well as help you to explore a variety of project areas.

*Mini 4-H'ers* may enroll in one project each year. This manual contains fun, age appropriate activities to complete throughout the 4-H year. These activities will help you to learn about the project you have chosen. Additionally, the manual contains all instructions for the exhibit you will be preparing for the Elkhart County 4-H Fair in July.

There is no competition in the *Mini 4-H* program. Each child who completes a project for the Fair will receive the same blue completion ribbon, certificate and 4-H pin. Judges comment sheets are provided only as a way to help you do your very best on future projects.

*Mini 4-H* does not have regular monthly meetings. Try to attend the special activities planned especially for YOU! These will give you a chance to meet the project leaders, have some hands-on fun, and ask questions about your important Fair display. *Mini 4-H* is FUN! You will enjoy it.

Once you enter the third grade you can join a regular 4-H club that meets monthly. You must enroll each year of your 4-H career.

If you have questions about the *Mini 4-H* program, please call the Purdue Cooperative Extension Office at 574-533-0554. We will be happy to answer your questions.

**As a Mini 4-H parent, please help guide and encourage your child through the activities. Work with them to help them to "learn by doing". Activities are designed to help your child learn about the project they have chosen. It is not required that they complete all the activities. Choose those that interest you and your child.**

# 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? _____

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## 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

**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? _____

# 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.

# Dino-Color

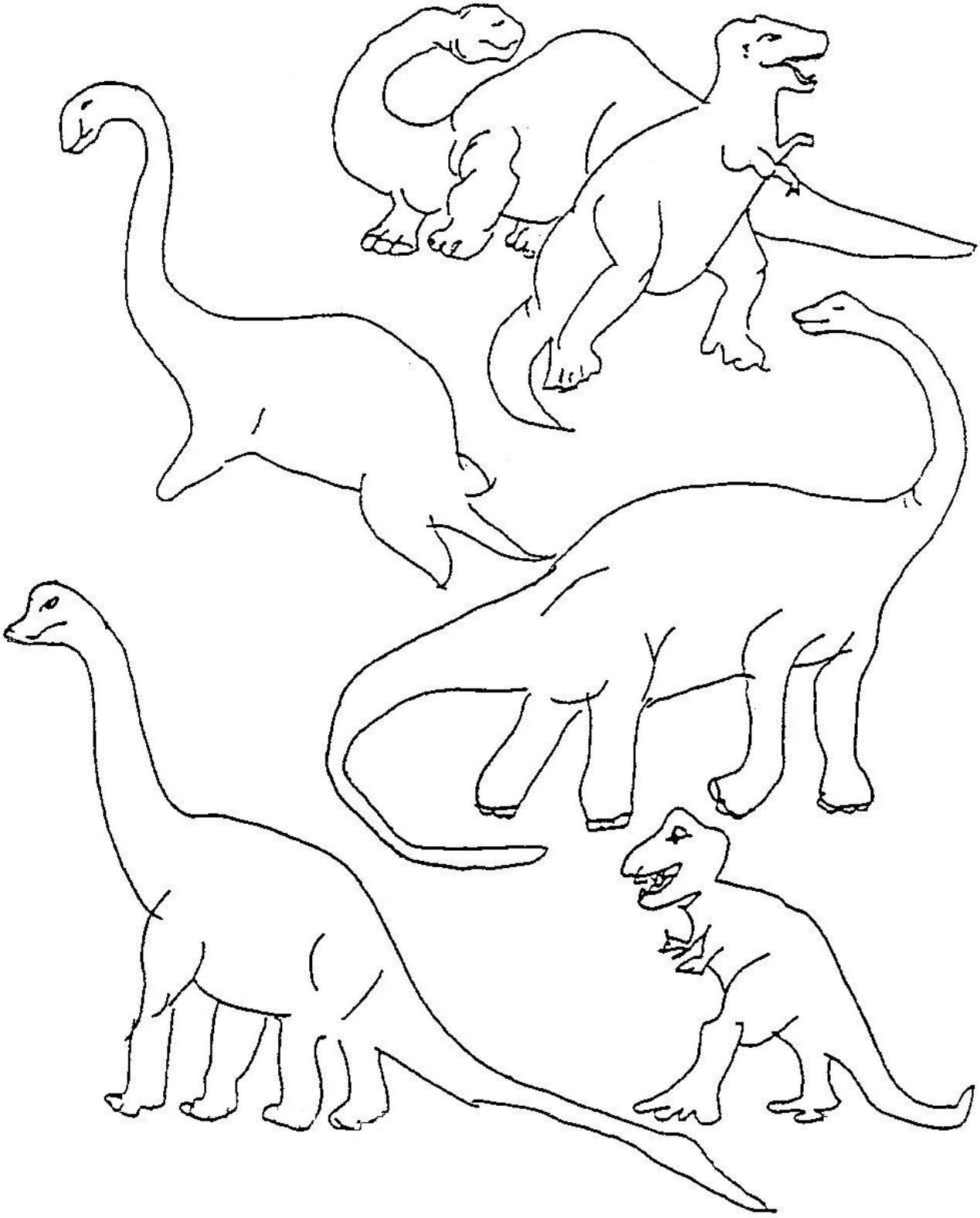
## Ornithischia

(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.



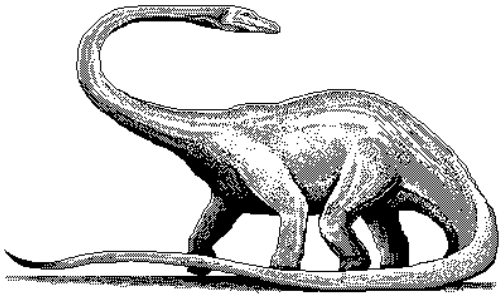
**What did you learn?**

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**:

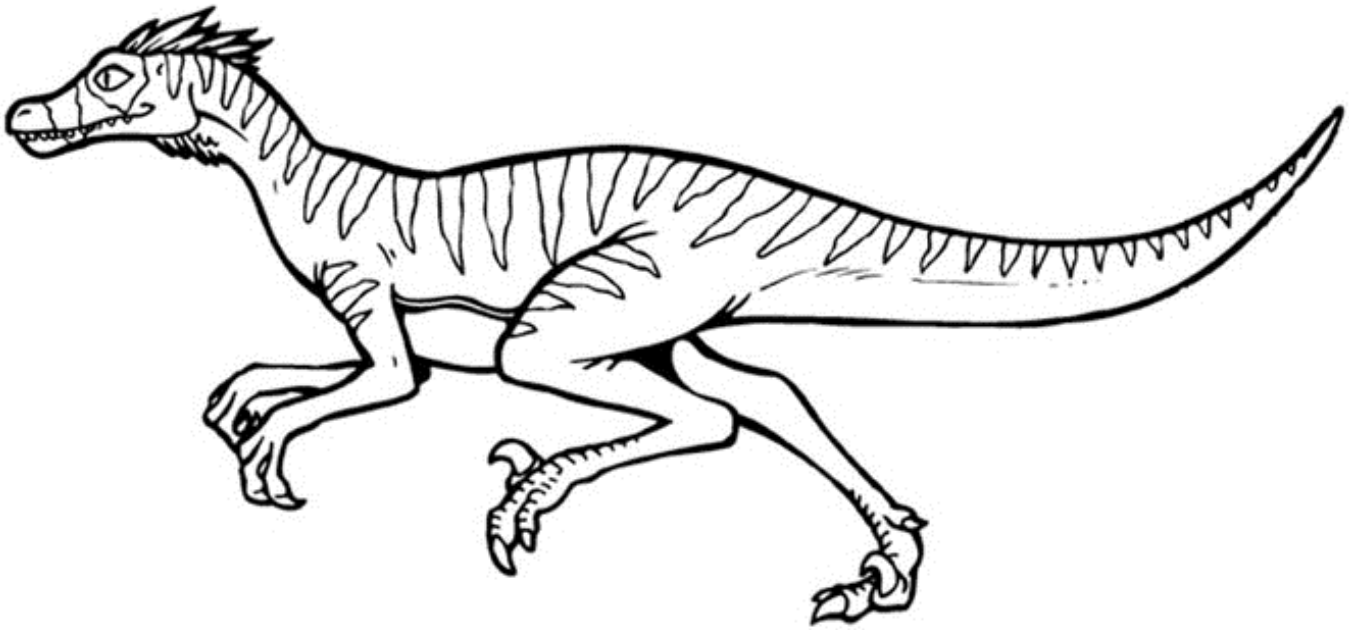
Crayons Dinosaur pictures (see following pages)

**What you will do:**

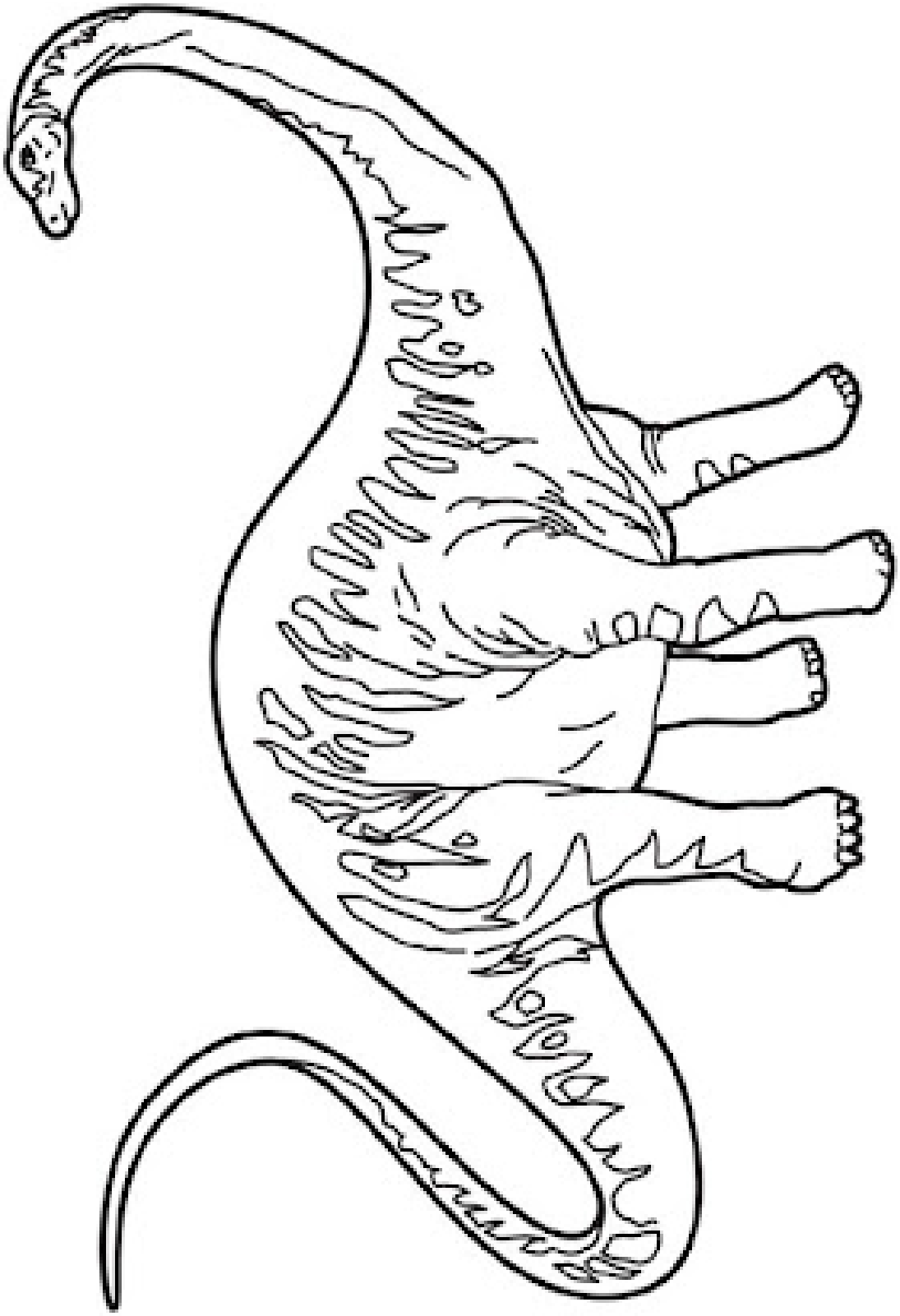
1. Read about the special dinosaurs and color the pictures.

**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.

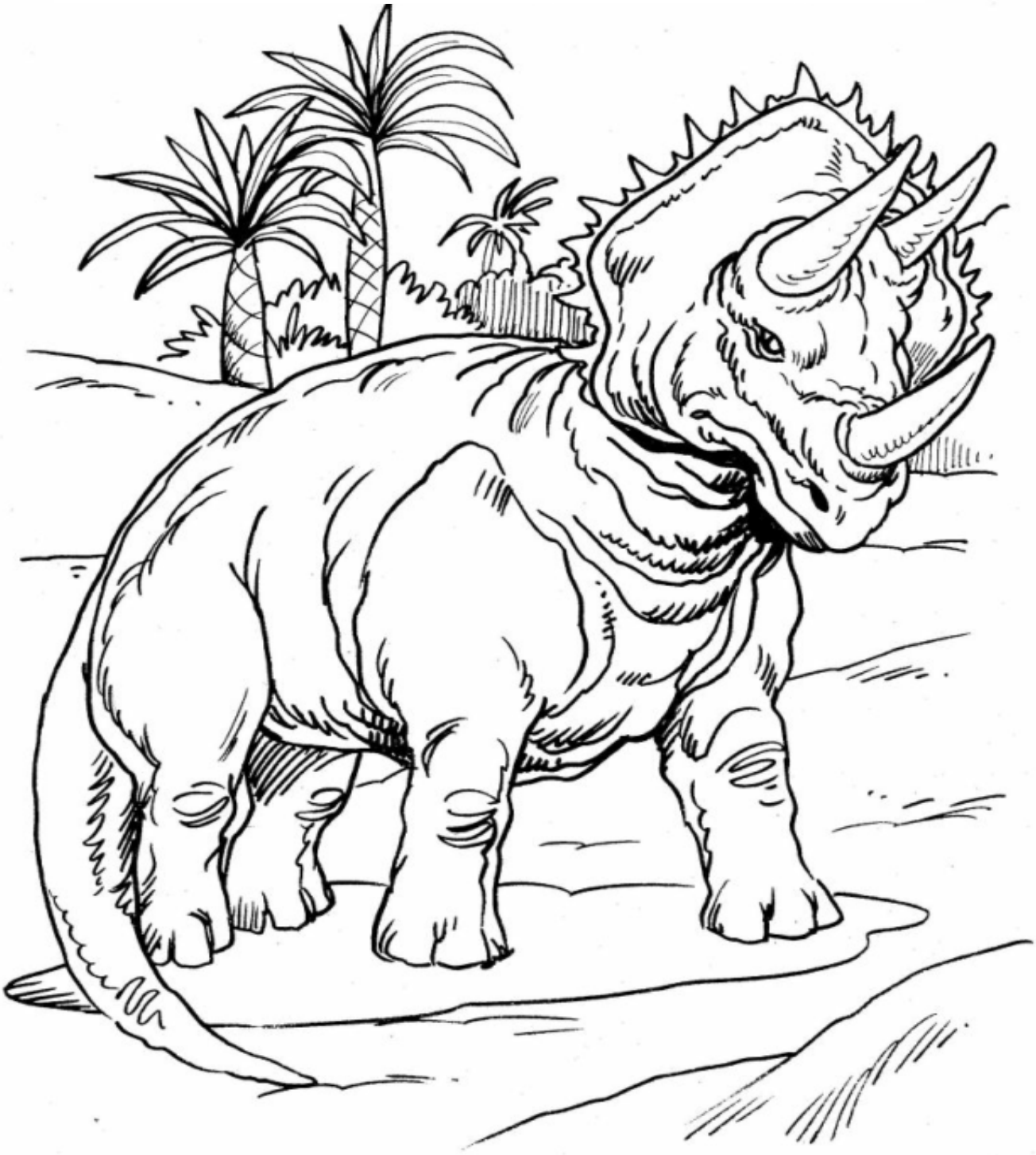


**Velociraptor**: (swift, speedy thief) The Velociraptor was a fierce, fast, meat-eater. It had sharp teeth and claws on all fingers and toes. It was about 6 feet long and 3 feet tall, very intelligent and may have hunted in packs.



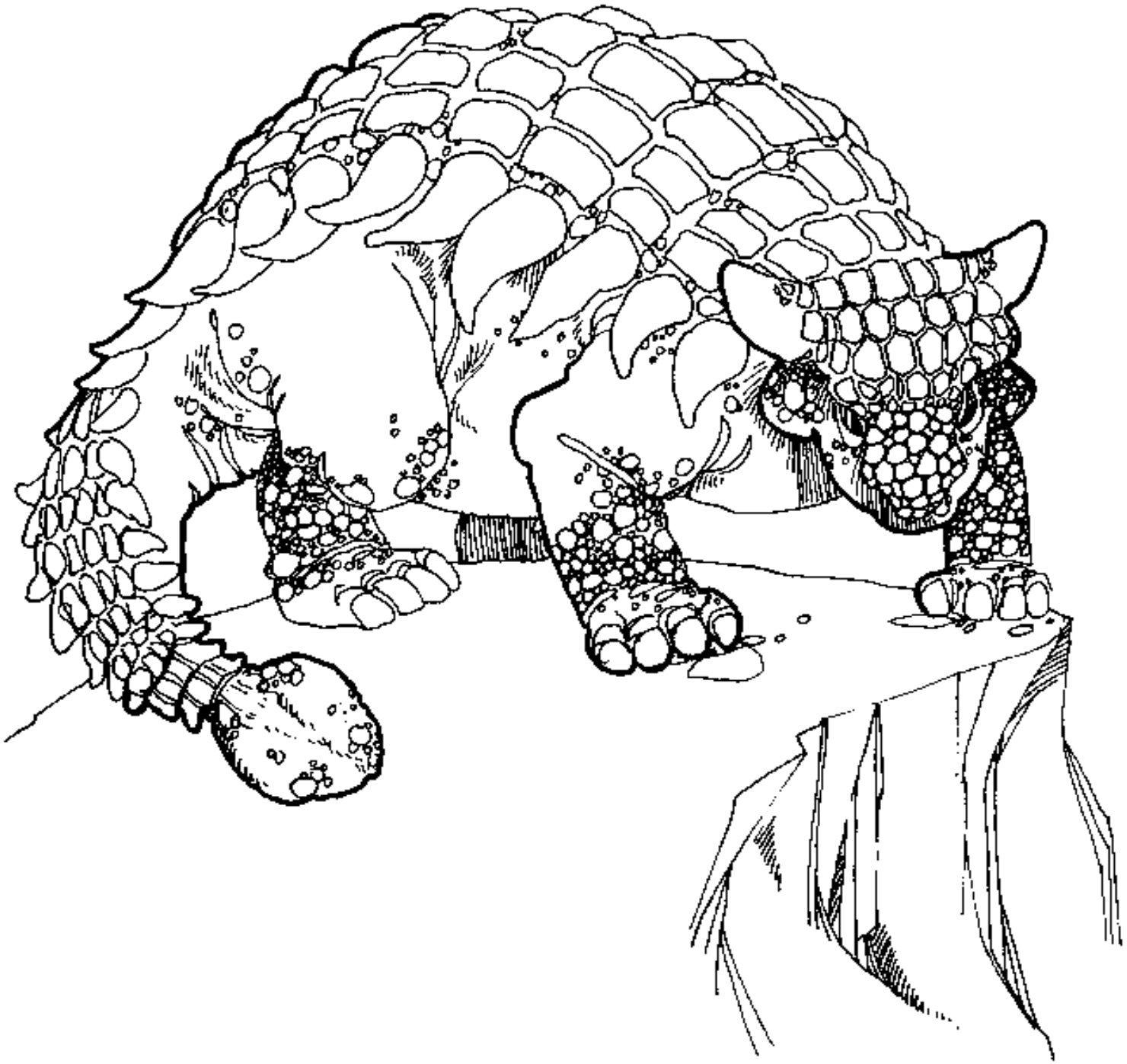
**<u>Tyrannosaurus</u>**: (King of the tyrant lizards) This was the largest of all the meat eating dinosaurs. It was about 50 feet long and about 20 feet tall.

**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

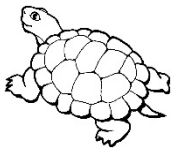
There are no dinosaurs on the Earth today. This is because they are *extinct*. Extinct means that kind of plant or animal is no longer living anywhere on Earth. There are many ideas or theories as to why dinosaurs became extinct. Maybe someday we will know what really happened to the dinosaurs.

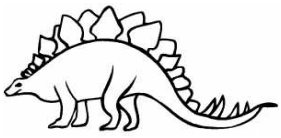
**Materials needed for this activity**: Activity sheet Pencil Crayons

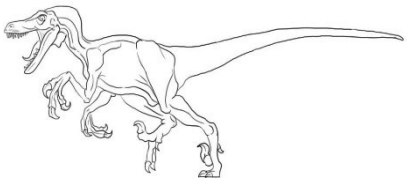
**What you will do:**

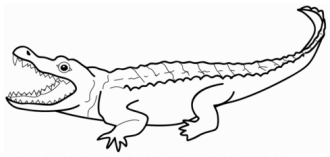
1. Look at the activity sheet. Put an X in the Extinct column if that animal is no longer living.
2. Put an X in the Living column if you could see that animal today.
3. Color the pictures when you are done.

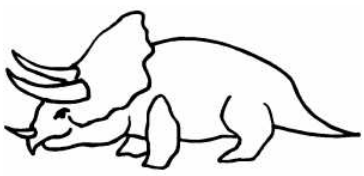
| **Reptiles** | **Extinct** | **Living** |
| --- | --- | --- |
| Turtle | | |
| Stegosaurus | | |
| Velociraptor | | |
| Crocodile | | |
| Snake | | |
| Pteranodon | | |
| Lizard | | |
| Triceratops | | |











**What did you learn?**

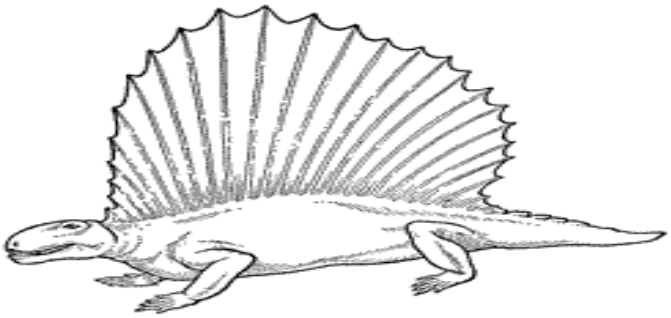
What was one animal you marked in the Extinct column? _____

_____

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 | | Suffixes | |
|---|---|---|---|
| Allo | difference | Dactyl | finger, toe |
| Ankylos | hook, joint | Odon | tooth |
| Cerato | horn | Physis | origin, natural form of a thing |
| Coel | cavity | Raptor | thief |
| Compo | pretty | Rex | king |
| Compso | elegant | Saurus | lizard |
| 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 | | |

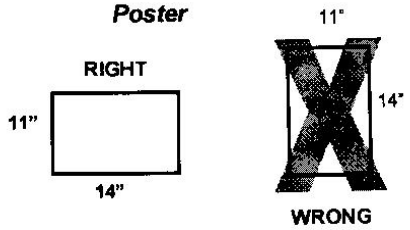
**What did you learn?**

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

# What to Exhibit
# *Dinosaurs*

**Complete one of the following for your 4-H Fair exhibit.**

1. Make a Dinosaur poster. Your poster must be exactly 11 x 14 inches, displayed horizontally (wider than it is tall) and attached to a stiff backing (like cardboard). You may use foam board. Foam board is already stiff and does not require additional backing. Your poster must be covered with clear plastic. This can be a poster sleeve. If you have made a three dimensional item, you may use clear vinyl. You poster must have a title.




**NOTE**: No oversize posters will be accepted for exhibition.
No un-mounted items will be accepted for exhibition.

Find pictures or drawings of any two dinosaurs. They do not need to be dinosaurs from this manual. Answer the following 4 questions about your dinosaurs. You may need to check the library for some of these facts.

| | |
|---|---|
| Name of dinosaur? | Size of dinosaur? |
| Weight of dinosaur? | Type of dinosaur? |

2. Make a Dino-Diorama in a standard size shoebox. Finish the inside to look like the Earth when the 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 must cover the front of the diorama with clear plastic. *Use your imagination!*

**<u>All projects (poster or diorama) must include</u>: *(both are found on page 23)***

- **Record Sheet (attached to the back of the poster)**
- **Exhibit Tag (attached in the lower right front corner of the poster)**

**NOTE: If you are unable to pick your project up on project Release Day, the Monday following the close of the fair, please make arrangements to have it picked up. All projects must be removed from the exhibit building on that day. There is no available storage space for unclaimed projects.**

**Exhibit Tag:**

# Mini 4-H

Name _____

City _____Grade_____

School_____

# Dinosaurs

**Record Sheet**

**----------Cut here----------**

**Name _____Grade _____**

**What dinosaur did you choose for your exhibit? _____**

**Why? _____**

_____

**What do you think happened to the dinosaurs? _____**

_____

**What is your favorite dinosaur? Why? _____**

_____