



## MAIASAURA: GOOD MOTHER LIZARD

### Activity Overview

#### BIG IDEA

*Maiasaura* is a duck-billed dinosaur whose name means “Good Mother Lizard.” Baby *Maiasaura* leg bones were too weak for a nestling to walk or run, so scientists hypothesize that adult *Maiasaura* cared for their young.

#### OBJECTIVE

Students will consider the basic needs of the *Maiasaura* and how it relied on its parents to survive the first year of its life.

#### BACKGROUND

In 1977, one of the world’s largest concentrations of dinosaur bones was discovered near Choteau in Teton County, Montana. The bonebed covers an area about one-half square mile and contains thousands of bones representing between 10,000 and 15,000 animals. The dominant dinosaur in this bonebed was a new hadrosaur species which was named *Maiasaura*.

In these areas, former Curator of Paleontology at MOR, Jack Horner and his team found the first clutches of dinosaur eggs from the Western Hemisphere and the first dinosaur embryos ever found in the world. They found clutches and embryos of both *Maiasaura* and *Troodon*, a small predator related to the *Velociraptor*. Babies were found within a *Maiasaura* nest and looked like they had been there for some time after they hatched. Undeveloped leg joints and trampled eggshells also indicated nestbound young not yet capable of leaving the nest. This fossil evidence led to the hypothesis that these dinosaurs cared for their young. Because of this evidence of parental behavior, the new dinosaur species was named *Maiasaura*, meaning “good mother reptile.”

*Maiasaura* grew very fast! At birth it was only 16 inches long and weighed about one and a half pounds, while an adult could be 30 feet long and weigh 4,000 pounds! After only one year, *Maiasaura* would be about 9 feet long!

The *Maiasaura* (“good mother reptile”) is the state fossil of Montana and has not yet been found anywhere outside the state. *Maiasaura* was a medium-size, plant-eating hadrosaur (duck-billdinosaur) which was about 26 feet long.



## MAIASAURA: GOOD MOTHER LIZARD

### Museum Instructions

#### MATERIALS

Student activity sheets, clipboards, pencils (Pens, crayons, and markers are not allowed in exhibit spaces), Book: *MAIA: A Dinosaur Grows Up*, by John R. Horner and James Gorman

#### ACTIVITY TIME

30 Minutes

#### LOCATION



#### INSTRUCTIONS

Visit the *Maiasaura* and nesting section of the *Dinosaurs Under the Big Sky Exhibit*.

Share with your students background information on *Maiasaura* and explore the exhibit, looking at the different nesting sites and all the *Maiasaura* fossils, including the embryo and nestlings. If time allows, read your students the storybook, *MAIA: A Dinosaur Grows Up*, by John R. Horner and James Gorman. (This book can be found in the Dinosaur Play Area next to the Viewing Lab.)

After learning about *Maiasaura*, looking at the displays, and reading the story, have your students complete the activity page.

When answering the questions in the activity, encourage students to use specific examples. Explain to students they may not know the exact answer to all of the questions, just like scientists don't always have the exact answers. Ask students what they think scientists do when they don't know the answer. Scientists make hypotheses; they use observations, evidence, and knowledge to come up with an explanation. Encourage students to be scientists and use their observations and knowledge to come up with hypotheses to answer the questions.



## **MAIASAURA: GOOD MOTHER LIZARD** Classroom Instructions

### **MATERIALS**

Book: *MAIA: A Dinosaur Grows Up*, by John R. Horner and James Gorman

### **ACTIVITY TIME**

30 Minutes

### **INSTRUCTIONS**

Share with your students background information on Maiasaura. Read your students the storybook, *MAIA: A Dinosaur Grows Up*, by John R. Horner and James Gorman.

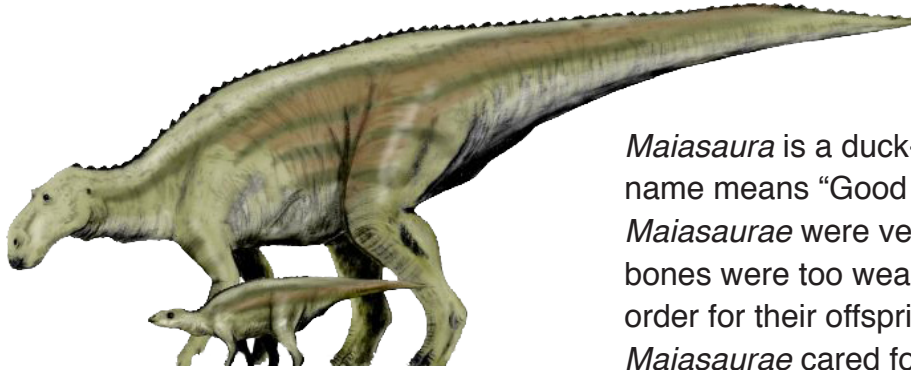
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NAME \_\_\_\_\_

## ***Maiasaura*:** Good Mother Lizard



*Maiasaura* is a duck-billed dinosaur whose name means “Good Mother Lizard.” Baby *Maiasaurae* were very small and their leg bones were too weak to walk or run. In order for their offspring to survive, the adult *Maiasaurae* cared for their young.

All living things need food, water, shelter, and space. If baby *Maiasaura* couldn't walk, what would it depend on its mother for? Write or draw a picture of two things the baby *Maiasaura* would need from its mother.

Think of human babies. How do they depend on their parents? Write or draw a picture of two things a baby human needs from its mother.



## ***Maiasaura*: Good Mother Lizard (Cont.)**

What dangers might a baby *Maiasaura* need protection from? Write about or draw a danger baby *Maiasaura* might face.

A large, empty rectangular box with a black border, intended for a drawing or written response.

To help protect their young, *Maiasaura* travelled in large herds with the young animals in the center of the herd. Draw a picture of herd of *Maiasaura* travelling with their young.

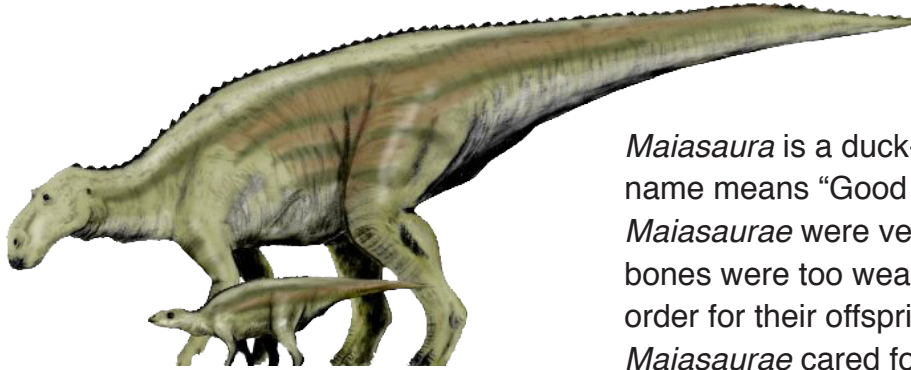
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NAME \_\_\_\_\_

ANSWER KEY \_\_\_\_\_

## ***Maiasaura*: Good Mother Lizard**



*Maiasaura* is a duck-billed dinosaur whose name means “Good Mother Lizard.” Baby *Maiasaurae* were very small and their leg bones were too weak to walk or run. In order for their offspring to survive, the adult *Maiasaurae* cared for their young.

All living things need food, water, shelter, and space. If baby *Maiasaura* couldn't walk, what would it depend on its mother for? Write or draw a picture of two things the baby *Maiasaura* would need from its mother.

**Drawings could include food, water, or a nest**

Think of human babies. How do they depend on their parents? Write or draw a picture of two things a baby human needs from its mother.

**Drawings could include food, water, or a home**



## ANSWER KEY

### ***Maiasaura*: Good Mother Lizard (Cont.)**

What dangers might a baby *Maiasaura* need protection from? Write about or draw a danger baby *Maiasaura* might face.

**Answers could include predators or weather**

To help protect their young, *Maiasaura* travelled in large herds with the young animals in the center of the herd. Draw a picture of herd of *Maiasaura* travelling with their young.

**Drawings will vary, but should include adult and juvenile *Maiasaura***