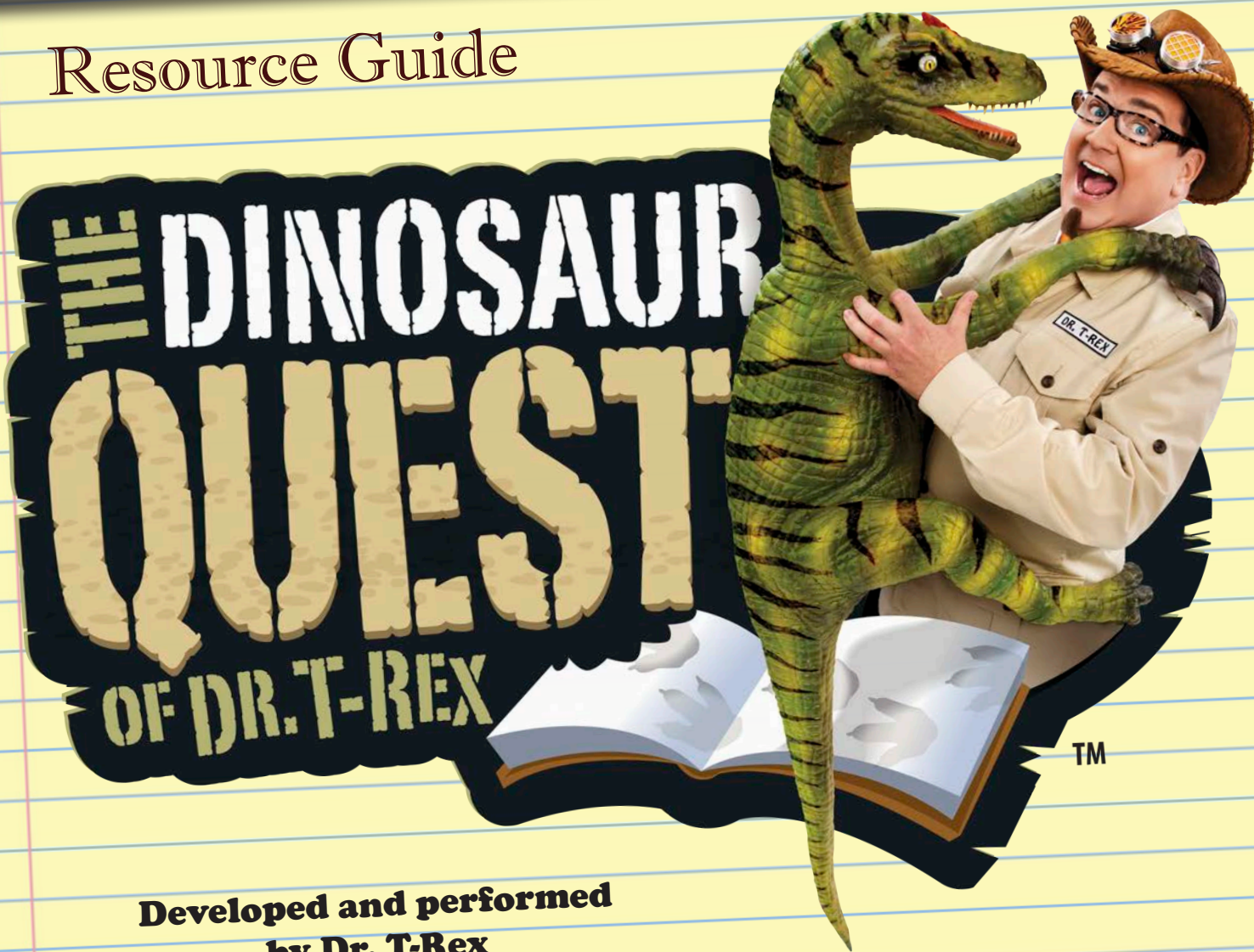


2018-2019

DISCOVERY

Resource Guide

THE DINOSAUR QUEST OF DR. T-REX



Developed and performed
by Dr. T-Rex

VTA
VICTORIA THEATRE ASSOCIATION

Friday, February 22, 2019
9:30 am & 11:30 am



Welcome to the 2018-2019 Discovery Series at Victoria Theatre Association. We are very excited to be your education partner in providing professional arts experiences to you and your students!

No one really knows when the first dinosaur fossil was discovered, but we do know when the word “dinosaur” was first introduced. In 1842, a British anatomist named Richard Owen visited a colleague in London and was introduced to some unique-looking bone fragments. He determined these were no ordinary fossils and coined the term “dinosaur” to describe them. Ever since, scientists have been working to learn more about these prehistoric creatures that roamed the Earth millions of years ago.

The information and activities in this resource guide have been carefully crafted to help you and your students explore the many ways a live theatre experience can open up learning opportunities. Grade level icons will help you determine which activities are good for students, too. And don't forget to take advantage of the local resources listed inside to extend the play-going experience and make even more curricular connections for you and your students. Thank you again and welcome!

Gary Minyard
Vice President of
Education & Engagement



Curriculum Connection

This resource guide was created by Natalie Katona. All activities are available for distribution and use in the classroom or at home.



You will find these icons listed in the resource guide next to the activities that indicate curricular connections. Teachers and parents are encouraged to adapt all of the activities included in an appropriate way for your students' age and abilities. *THE DINOSAUR QUEST OF DR. T-REX* fulfills the following Ohio and National Education Standards and Benchmarks for kindergarten grade through eighth grade.

Ohio's New Learning Standards for English Language Arts

Kindergarten- RL.K.1, RL.K.3, RL.K.4

Grade 1- RL.1.1, RL.1.3, RL.1.4

Grade 2- RL.2.1, RL.2.3, RL.2.4

Grade 3- RL.3.1, RL.3.3, RL.3.4,

Grade 4- RL.4.1, RL.4.3, RL.4.4, RL.4.7

Grade 5- RL.5.2, RL.5.4

Grade 6- RL.6.1, RL.6.3, RL.6.7

Grade 7- RL.7.1, RL.7.3, RL.7.7

Grade 8- RL.8.1, RL.8.3, RL.8.7

Ohio's Learning Standards for Science

Kindergarten- Physical and Behavioral Traits of Living Things

Grade 1- Basic Needs of Living Things

Grade 2- Interactions within Habitats

Grade 3- Behavior, Growth and Changes, Earth's Resources

Grade 4- Earth's Surface, Earth's Living History

Grade 5- Interactions within Ecosystems

Grade 6- Rocks, Minerals and Soil

Grade 8- Species and Reproduction

Ohio's Learning Standards for Social Studies

Historical Thinking and Skills

Production and Consumption

National Core Arts Theatre Standards

Kindergarten- TH: Cr1.1.K., TH:Cr3.1.K

Grade 1- TH:Cr1.1.1., TH:Cr3.1.1

Grade 2- TH:Cr1.1.2., TH:Cr3.1.2

Grade 3- TH:Re7.1.3, TH:Re8.1.3., TH:Cn10.1.3

Grade 4- TH:Re7.1.4, TH:Re8.1.4, TH:Cn10.1.4

Grade 5- TH:Re7.1.5, TH:Re8.1.5, TH:Cn10.1.5

Grade 6- TH:Re7.1.6, TH:Re8.1.6, TH:Cn10.1.6

Grade 7- TH:Re7.1.7, TH:Re8.1.7, TH:Cn10.1.7

Grade 8- TH:Re7.1.8, TH:Re8.1.8, TH:Cn10.1.8

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About the Play

ENGLISH/
LANGUAGE
ARTS

All
GRADES

Dr. T-Rex is a well-versed Paleontologist who is also a ton of laughs! With a focus on the Cretaceous Period, His one-of-a-kind, hilarious show takes the audience on a tour through the Mesozoic Era—the Age of Dinosaurs. What happened 165 million years ago during the Cretaceous Period when dinosaurs roamed the planet and flowering plants came onto the scene? Using his six totally realistic and life-size dinosaur puppets and lots of audience participation, Dr. T-Rex shows students why “It stinks to be extinct.” From the moment he leaps on-stage, you are on THE DINOSAUR QUEST OF DR. T-REX!



Spotlight on Paleontology



Paleontology is a study that combines geography (the study of rocks) and biology (the study of life). It is one of the main ways we have learned about species of the past, like dinosaurs! A Paleontologist studies fossils. Fossils are the preserved remains of plants or animals. They are preserved in hardened rock. There are two main types of fossils: body fossils and trace fossils. Body fossils are when an actual part of an animal or plant (such as a foot, skull, bone, petal, stem, ect.) is preserved. Trace fossils are a preservation of an activity the living thing did. Trace fossils are preserved footprints, tracks made by an animal, egg shells, or nests an animal built. Paleontology is hard work and takes lots of patience. Paleontologists travel the world combing different areas for sedimentary rock to dig up and chisel through. They use brushes to comb off rock pieces and have to work carefully in order to protect the fossils. Without Paleontologists and fossils, we wouldn't be able to hypothesize how dinosaurs lived so long ago!

Ohio Spotlight

SCIENCE

SOCIAL
STUDIES

ENGLISH/
LANGUAGE
ARTS

You can practice Paleontology right here in Ohio! Ohio has one of the best fossil records in the world and that is largely thanks to Caesar Creek State Park. Caesar Creek has a specific area in the Caesar Creek Dam where they allow people to go and hunt for fossils. In order for you to be part of the fossil hunt you must check in with the nature center and obtain a collecting permit. The fossils you will find are from the Ordovician period and the types are Trilobites (Ohio's State Fossil), Horn Coral, Gastropods, Brachiopods, and Bryozoans, with rarer occurrences of Cephalopods and Crinoids. Once you're done hunting your fossils there is a lot more to enjoy at the park. There is hiking trails, boating on the creek, swimming in the lake, a nature center filled with fossil facts, and more! If you would like to plan a day on the creek, please visit <http://www.caesarcreekstatepark.com/>.



Pre-Show Conversation Starters



THE DINOSAUR QUEST OF DR. T-REX will take students on a wild journey through the world of dinosaurs! Students will learn the ways dinosaurs behaved, ate, and how they became extinct. Students will have the opportunity to study from a dinosaur dig site to see what they can learn from fossils. To prepare your students, please use the following discussion questions:

1. Why would people want to study fossils?
2. What are some different dinosaurs you are familiar with?
3. How does a fossil get pressed into the earth and saved for someone to find years later?
4. How do you think the dinosaurs went extinct?

Dinosaur Timeline



Earth has gone through several ages of time. The dinosaurs were on Earth for the Mesozoic Era. We are living in the Cenozoic Era.

251 Million Years Ago- **Triassic Period**

- Molluscs are the main invertebrates and Ammonites are in large numbers
- Dinosaurs begin their evolution, they are very small with large, wide mouths and sharp teeth



Late Triassic Period- The first dinosaur fossils, Herrerasaurus and Eoraptor, appear.

200 Million Years Ago- **Jurassic Period**

- The first flying reptiles, pterosaurs appear



150 Million Years Ago- **Late Jurassic Period**

- Mammals are on the earth with dinosaurs
- Other dinosaurs on the Earth- Brontosaurus, Coelophysis, Archaeopteryx, Diplodocus



125 Million Years Ago- **Late Cretaceous Period**

- Birds begin evolving from the dinosaurs
- Some dinosaurs on the Earth- Tyrannosaurus Rex, Triceratops



65 Million Years Ago- **Mass Extinction**




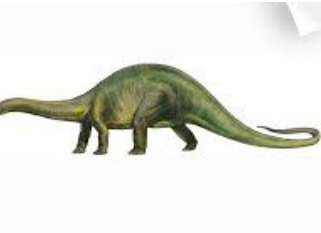

- A meteorite hits Earth causing the dinosaurs to go extinct







Dinosaur Types and Important Vocabulary



Dinosaurs

	<p>Mollusc A round, shelled marine animal from the Triassic Period</p>
	<p>Eoraptor One of the first dinosaurs species. It was an omnivore or carnivore that walked on two long legs</p>
	<p>Pterosaurs Small, flying dinosaurs that lived in the Jurassic Period.</p>
	<p>Brontosaurus A long necked dinosaur living in the late Jurassic Period.</p>
	<p>Triceratops A dinosaur with three horns living in the Late Cretaceous Period.</p>

Other

	<p>Meteorite A large space rock that hits Earth.</p>
	<p>Carnivore A meat eating animal</p>
	<p>Herbivore A plant eating animal</p>
	<p>Omnivore An animal that eats both plants and meat</p>

Fossil Study



NAME: _____ Date: _____

Directions: Match the fossil or skeleton to the animal you think it came from!



veggies

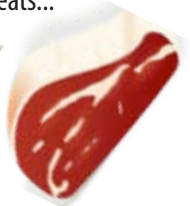


meat



Circle what the types of living things eat:

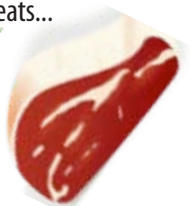
A CARNIVORE eats...



An OMNIVORE eats...



A HERBIVORE eats...








Fossil Study



NAME: _____ **Date:** _____

Directions: Study the image of the fossil in the first column. In the second column make a hypothesis on which past living thing you think this fossil came from with an explanation of why you chose that living thing. In the final column, make predictions on what life was like for that animal. Try to use as much vocabulary from this resource guide as possible!

Fossil:	What Living thing was this? Why?	What was life like for this living thing?
		
		
		
		
		

Make your own Dinosaur

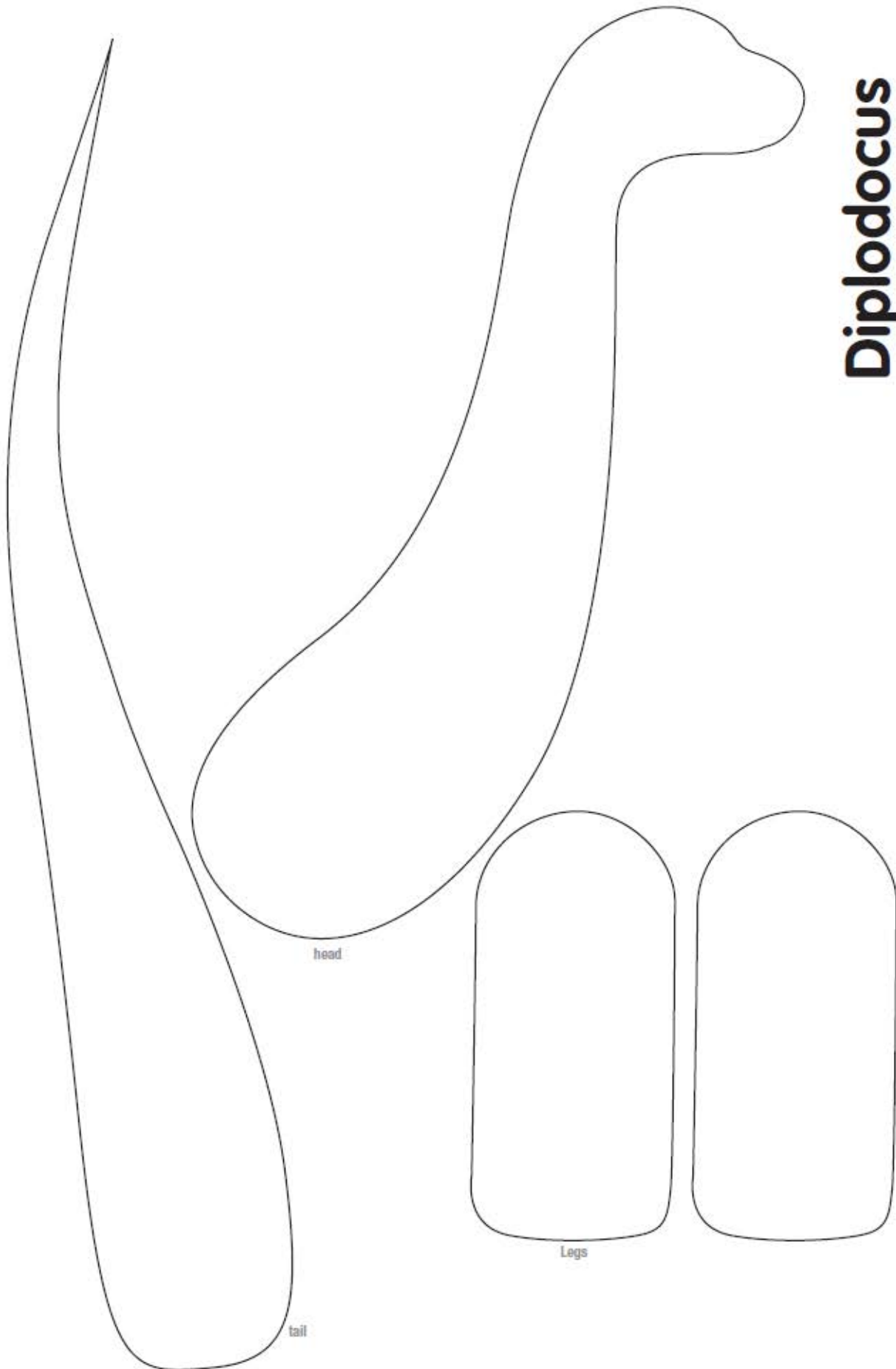


NAME: _____ **Date:** _____

Directions: Fill out the chart and use the prompts to create your own dinosaur. Then, use the dinosaur templates or a combination of the templates to make and design your own dinosaur.

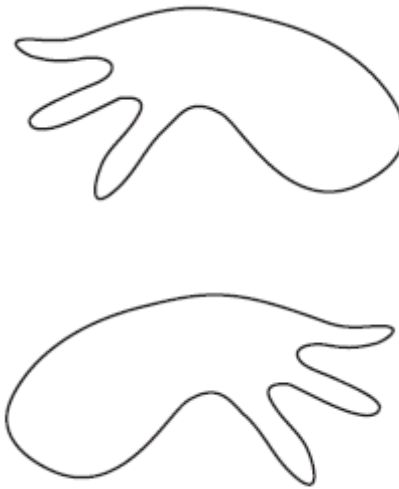
My dinosaur looks like...	My dinosaur eats...
My dinosaur lives...	When my dinosaur is with other dinosaurs it...

Diplodocus





Legs



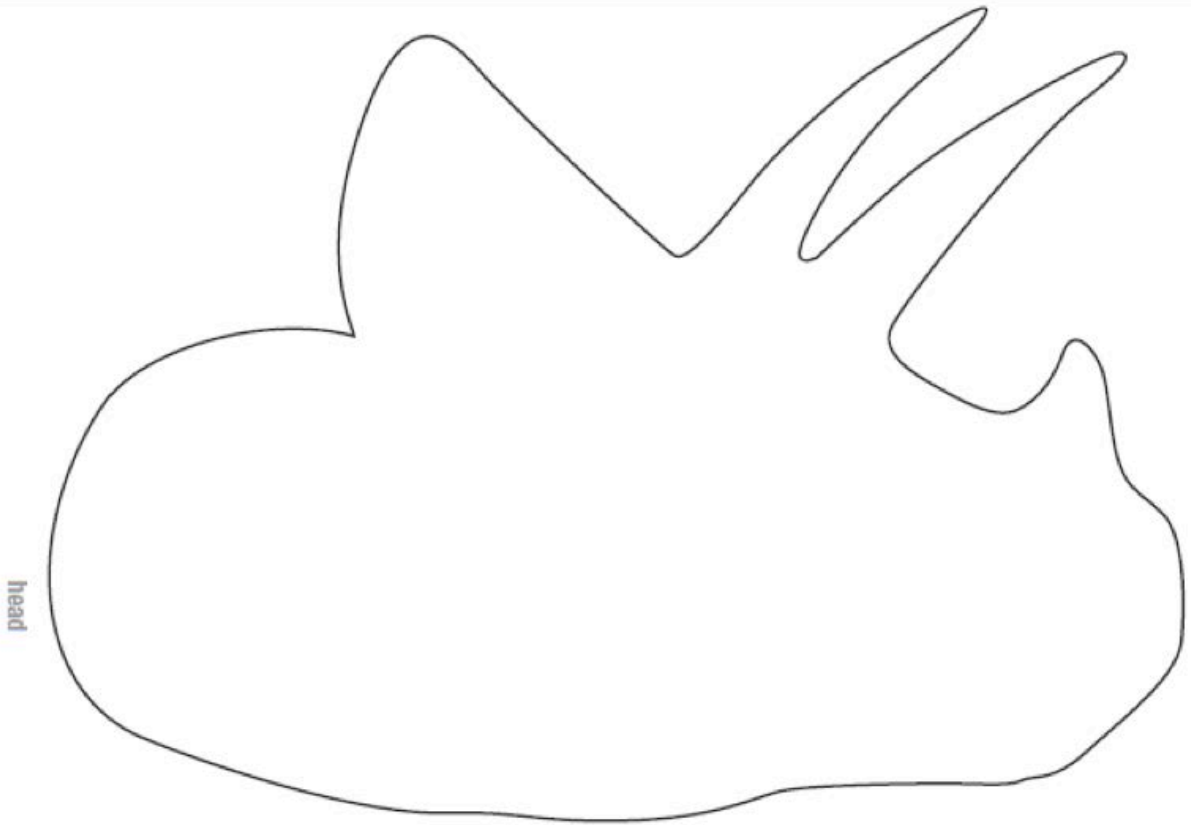
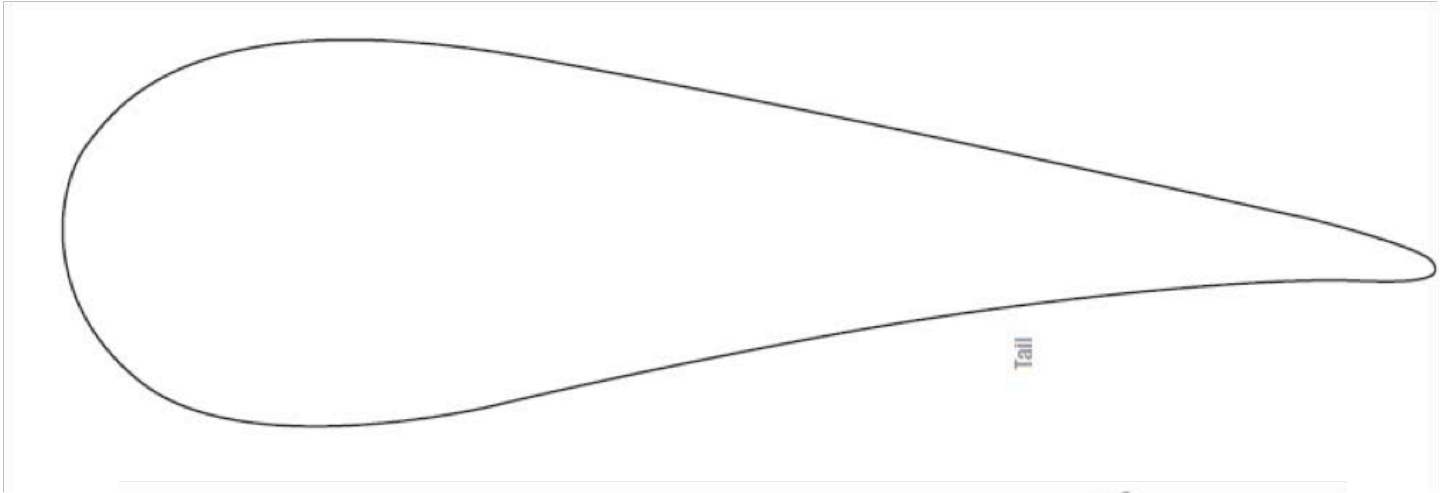
Top claws



Legs

Pterodactyl

Triceratops



Create your own fossils at home!

Materials

1. PLASTER OF PARIS
2. LITTLE PLASTIC CREATURES OR OBJECTS – Use small toys, leaves, sticks, shells, or other small objects. See if you can recreate any of the fossils in this guide!
3. WATER and a container for pouring, e.g., a large container with a small pour spout or a large water bottle (or several bottles) with a spout that allows you to pour in small, controlled amounts.
4. MODELING OR POTTERY CLAY
5. SMALL PAPER CUPS- 2 cups per student
6. POPSICLE STICKS or stirring sticks. One for each child.
7. PERMANENT MARKER – for labeling purposes

Steps:

1. Take an empty cup and a small amount of clay. Flatten the clay into the bottom of the cup to create the first layer.
2. Take the small object and press the design of the object into the clay. Details need to be face down and students should not bury the object in the clay. The object is removed from the cup.
3. Add dry plaster using $\frac{1}{2}$ of one of your small paper cups.
4. Slowly add water one teaspoon at a time until the plaster has a sticky, pancake batter like texture.
5. Stir the plaster carefully and let it sit in a dry place overnight.
6. The next day peel off your paper cup and reveal your homemade fossil!

Resources for Students and Adults

Books for Students about Dinosaurs and Fossils:

Curious about Fossils, Written by Kate Waters. Grosset & Dunlap : 2016.

Fly Guy Presents: Dinosaurs, Written by Tedd Arnold. Scholastic Reference : 2014

What was the Age of Dinosaurs?, Written by Megan Stine. Illustrated by Gregory Copeland. Penguin Workshop : 2017.

Publications for Teachers and Parents:

The Rise and Fall of the Dinosaurs: A New History of a Lost World, Written by Steve Brusatte. William Morrow : 2018.

Prehistoric Life: The Definitive Visual History of Life on Earth, Written by DK. DK : 2012.

Dinosaurs: How they Lived and Evolved, Written by Darren Naish, Paul Barrett. Smithsonian Books : 2016.

Websites for Teachers and Students:

<https://paleobiology.si.edu/index.html>: A website from the Smithsonian National Museum of Natural History on the Paleo Biology department.

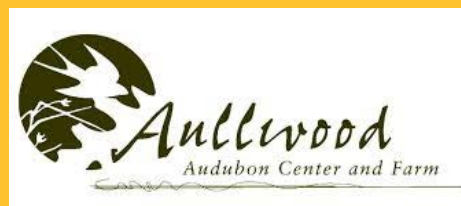
<https://www.nationalgeographic.com/search/?q=dinosaurs-> National Geographic has many videos and articles to use as a resource to learn about dinosaurs and fossils.

[https://www.amnh.org/explore/curriculum-collections/dinosaurs-activities-and-lesson-plans/-](https://www.amnh.org/explore/curriculum-collections/dinosaurs-activities-and-lesson-plans/) The American Museum of Natural History has many lesson plans and activities on dinosaurs for teachers to use in the classroom.

<http://www.discoveryeducation.com/teachers/free-lesson-plans/discovering-dinosaurs.cfm>- Discovery Education is a site that offers videos, lesson plans, articles, and presentations on dinosaurs.

Victoria Fuse's Local Resource Discovery

Aullwood Audubon Center is a 200-acre sanctuary with six miles of trails winding through prairie, forests, marsh, ponds, and meadows. Aullwood sits on the Stillwater River which is home to many fossils. Patrons can hike down to the riverbed and search among the rocks for Trilobites, Horn Coral, Gastropods, Brachiopods, and Bryozoans. They can also visit the Aullwood Learning Center to learn about the bedrock in Ohio and how it was formed by ancient glaciers. There are also exhibits on how fossils are formed, the different types of fossils, and the three different types of rock. To schedule a visit to Aullwood Audubon Center visit: <http://aullwood.audubon.org/>.



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Background on Broadway
Bagels & Broadway



Great Shows for Kids is a production company that promises to bring a lot of energy to any topic. They work with a range of topics that also cover many of the Common Core Standards. The topics their shows present on include dinosaurs, bullying, mathematics, and many others! They use goofy characters, colorful set design, and puppetry to bring their shows to life. To learn more information about Great Shows for Kids, please visit <http://www.greatshowsforkids.com/>.

DON'T FORGET

All schools that receive scholarships for a show and/or transportation are asked and encouraged to create thank-you letters or cards for our sponsors. Please address your students' thank-you notes to:

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