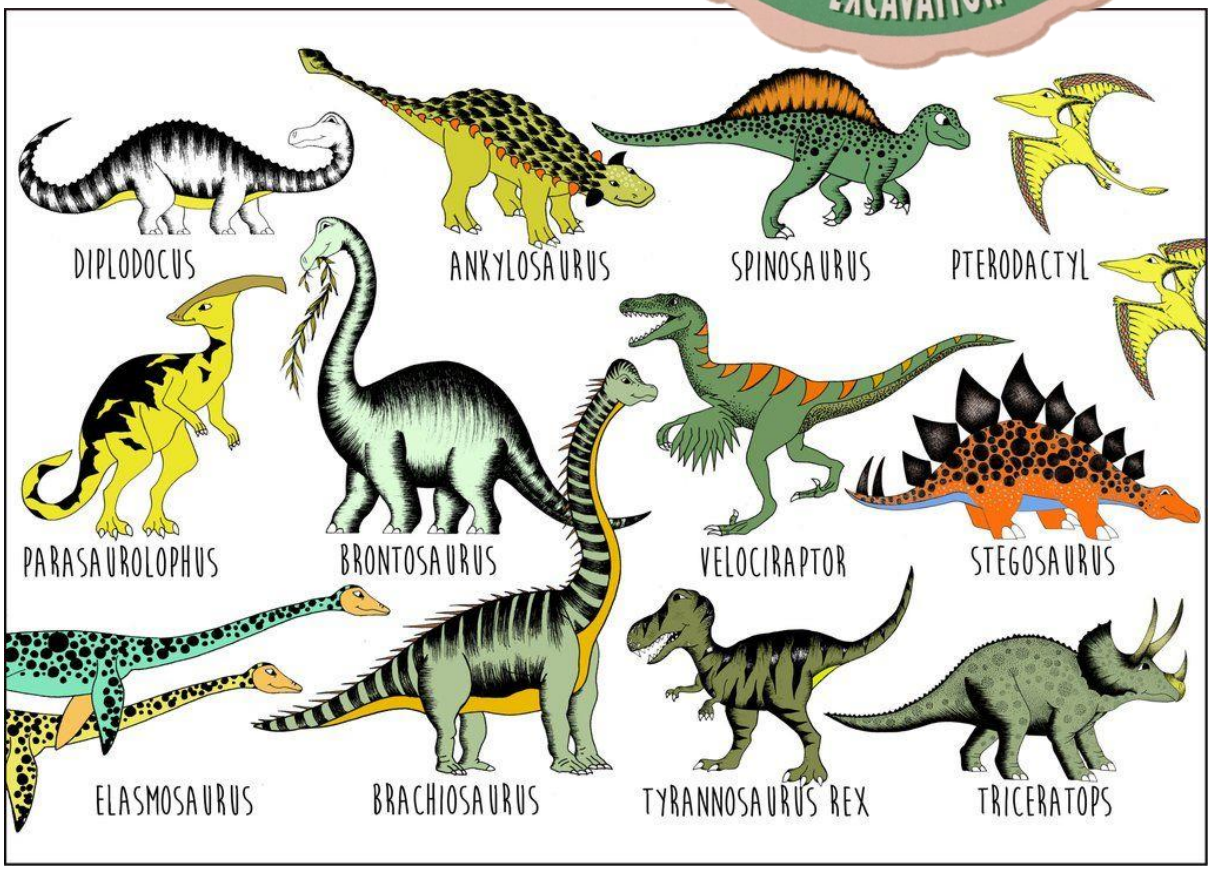
Dinosaur Activity Pack



NEVE-R BORED
BY ANA NEVE

How much do you know about dinosaurs?

Dinosaurs are a group of reptiles that dominated the land for over 140 million years (more than 160 million years in some parts of the world). They evolved diverse shapes and sizes, from the fearsome giant Spinosaurus to the chicken-sized Microraptor, and were able to survive in a variety of ecosystems.

One of the reasons for dinosaurs' success is that they had straight back legs, perpendicular to their bodies. This allowed them to use less energy to move than other reptiles that had a sprawling stance like today's lizards and crocodiles.

With their legs positioned under their bodies rather than sticking out to the side, it was easier for dinosaurs to move, think of how humans walk with their two legs.

Main characteristics dinosaurs share:

- They had an upright stance, with legs perpendicular to their body. This is the main feature that sets dinosaurs apart from other reptiles.
- Like other reptiles, they laid eggs.
- Most dinosaurs lived on land and on all 7 continents.
- Dinosaurs also had two holes behind the eye socket. Large, strong jaw muscles went through the holes to attach directly to the top of the skull. As a result, the jaws were able to open wide and clamp down with more force.

The word dinosaur comes from the Greek words *deinos and deinos, which together mean fearfully great lizard.* Sir Richard Owen from England came up with the term Dinosaur in 1842.

Sir Richard Owen was a biologist, which means he studied all living things, not just dinosaurs. If you want to study dinosaurs today you would need to become a palaeontologist. Palaeontologists are like detectives, and they use fossils to investigate how dinosaurs behaved and looked like. Fossils are the clues that animals from the past left behind, it is usually teeth, bones, shells, or even footprints.

Colour the palaeontologist

Today's science makes it easier for palaeontologists to learn new facts about dinosaurs, but in 1902 it wasn't that easy. Barnum Brown was one of the greatest dinosaur hunters of his time. He discovered the first Tyrannosaurus Rex ever found. He found a nearly perfect and complete skeleton in Montana, USA. The T-Rex had a very large head and tiny arms, but that didn't stop him from being a predator and eating smaller animals with its sharp teeth.

Make your own dinosaur!

What You'll Need

- Washable fingerpaints (green, white, yellow, black)
- Construction paper
- Sponge paintbrush
- Small paintbrush

How To Make It

1. Begin by painting the great outdoors where your dinosaur his adventures.

2. Use sponge paintbrush to apply paint to palm of hand.

3. Press hand onto construction paper. Make sure to place hand upside down.

4. Use small paintbrush to create the dinosaur's neck and head. Add his facial features with white paint.

Dinosaur Bowling

This is one of those really fun dinosaur games. You'll need 10 cans or plastic bottles and pretend they are the dinosaur bones. Then set them as bowling pins in a safe outside area (driveway, hallway, park, etc.), take turns rolling the "Dinosaur Egg" (ball), and see who can knock down the most dinosaur bones. To make it harder, fill the bottles with water so that they are heavier to knock down. After each person's turn they will need to reset the 'dino bones' for the next dino bowler.

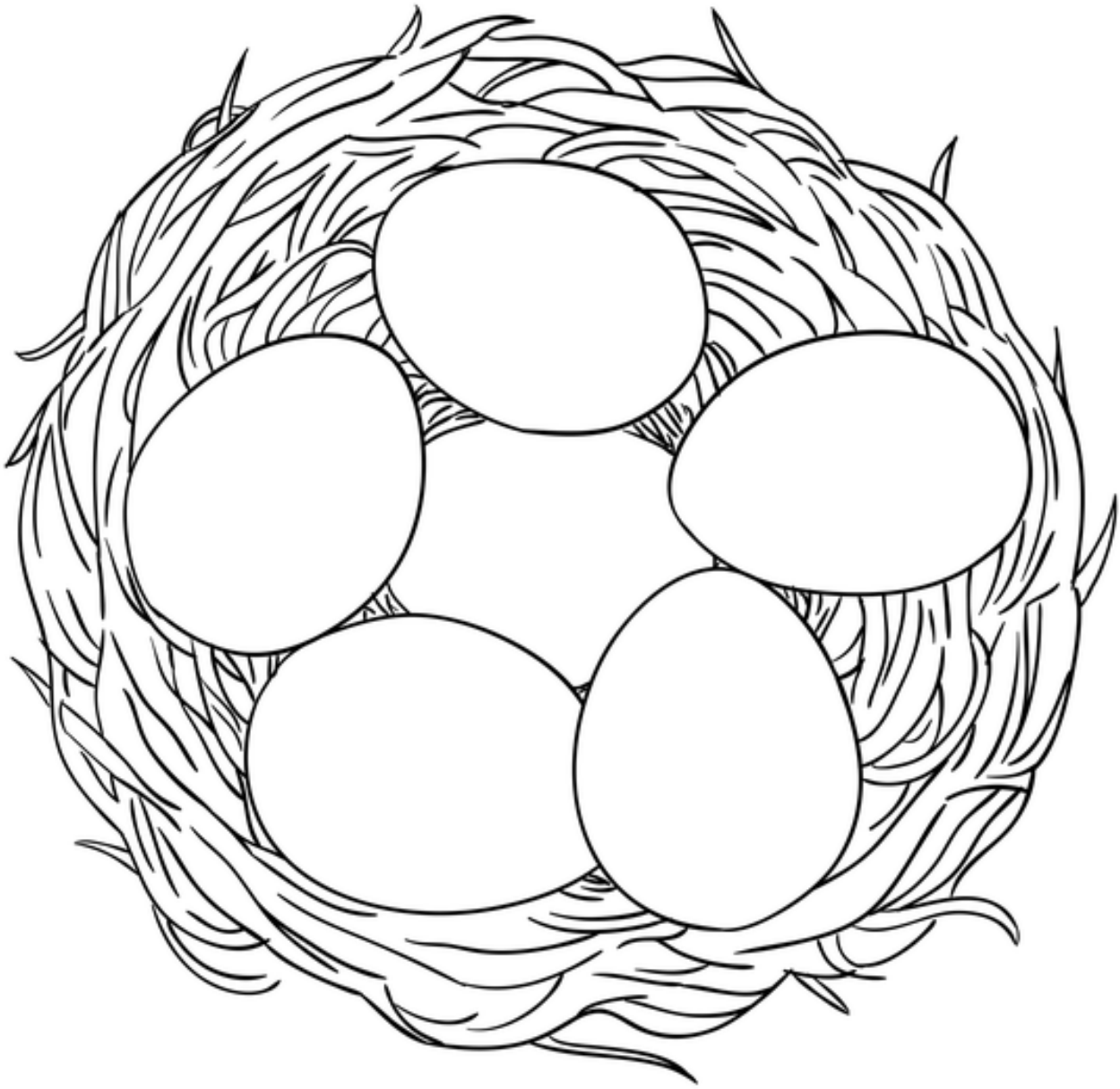
The Dinosaur Dance

Listen to the Dinosaurs Song here https://www.youtube.com/watch?v=W0FOZ0-VpcU. Create a dance by miming the lyrics to the song and moving how you think a dinosaur would move!

How did dinosaurs move?

All dinosaurs moved differently. As you saw in the song above, different kinds of dinosaurs had different specialties. Look at this video https://www.nhm.ac.uk/discover/stegosaurus-brought-to-life.html and try to recreate the movement? Can you become a dinosaur?

Dinosaurs had eggs of different colours and sometimes even patterns. Palaeontologists found this out studying egg fossils with a laser that showed if they had pigments (colour). They think this was so eggs could camouflage with the nest and predators couldn't find them. Design the shells for your very own dinosaur.



Now that you've designed your eggs, what would the newborn dinosaurs look like? Draw your dinosaur, give it a name and describe it below! How tall is it? Does it fly? What does it eat? Were do you think it lives? What colour is it? What kind of sound does it make?

Name of Dinosaur:

_____

Description:

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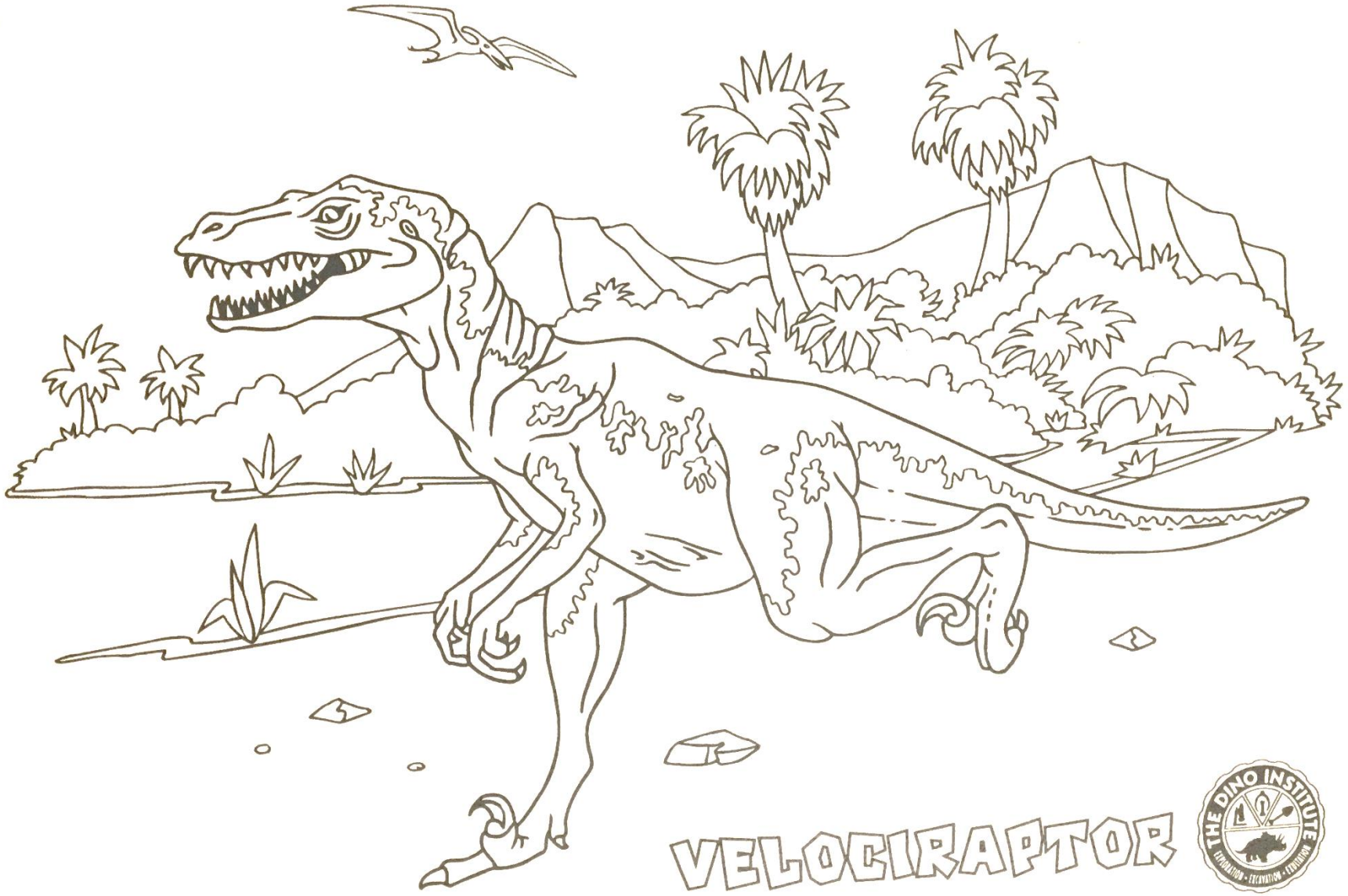
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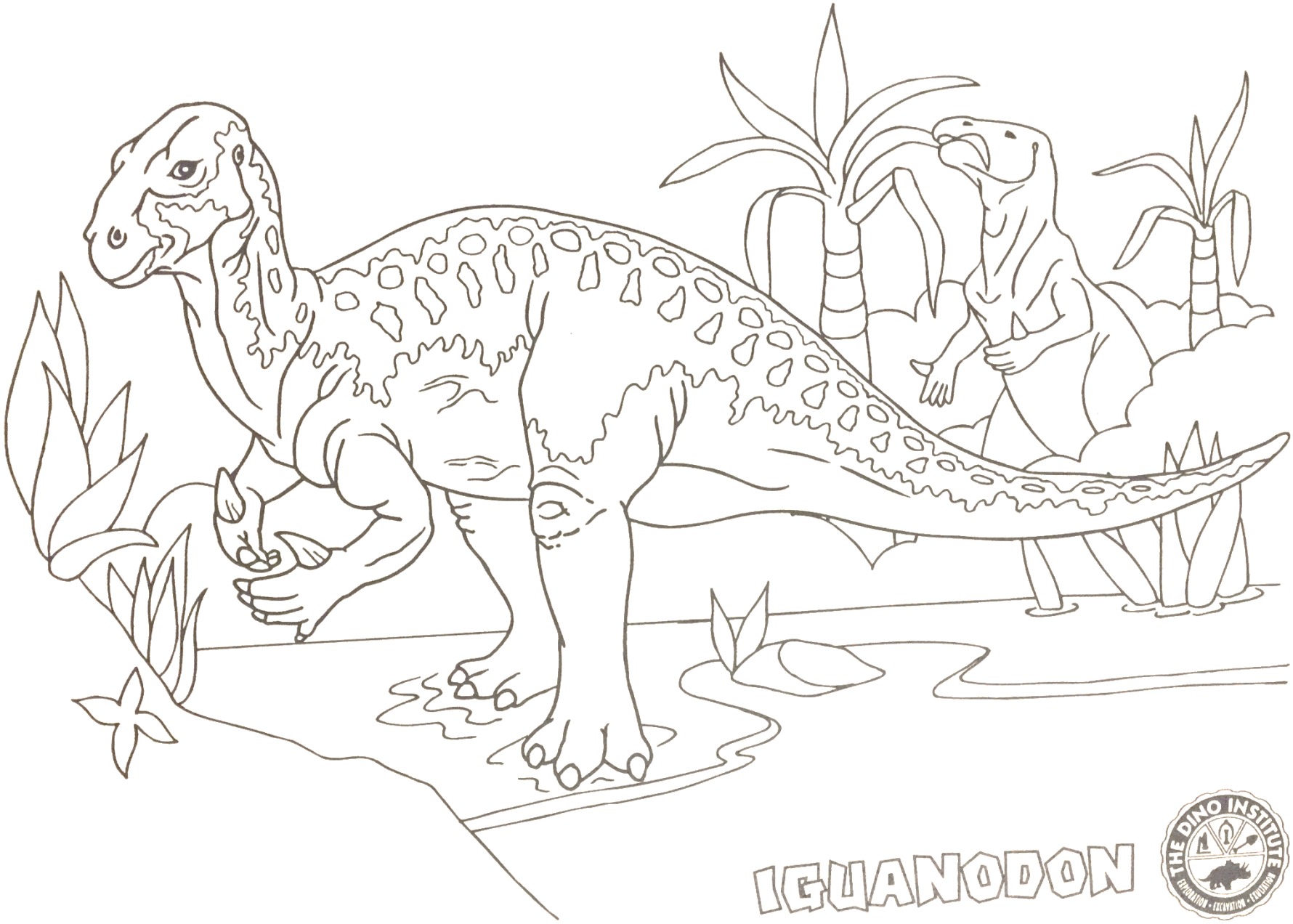
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Why did dinosaurs become extinct?

One of the most well-known theories for the death of the dinosaurs is the Alvarez hypothesis, named after the father-and-son duo Luis and Walter Alvarez. In 1980, these two scientists proposed that a meteor the size of a mountain slammed into Earth 66 million years ago, filling the atmosphere with gas, and dust that drastically changed the climate. The theory gained even more steam when scientists were able to link the extinction event to a huge impact crater along the coast of Mexico's Yucatán Peninsula.

There is another theory is that there was a volcano explosion in India, with layers of lava and enough carbon dioxide and other gases to dramatically changed the climate.

Some scientists believe it could be both reasons combined.

Make your own volcano

This volcano is a lot friendlier than the one that possibly killed the dinosaurs and it's also a lot sweeter.
Ingredients:

- 6 ounces (170g) high quality semi-sweet chocolate
- 1/2 cup (115g; 1 stick) unsalted butter
- 1/4 cup (31g) all-purpose flour (spoon & levelled)
- 1/2 cup (60g) confectioners' sugar
- 1/8 teaspoon salt
- 2 large eggs
- 2 large egg yolks
- optional for topping: ice cream, raspberries, and/or chocolate syrup

Instructions:

1. Spray four 6-ounce ramekin with non-stick cooking spray and dust with cocoa powder. This ensures the cakes will seamlessly come out of the ramekins when inverted onto a plate in step 7. *Or spray half of a 12-count muffin pan and dust with cocoa powder. If baking in a muffin pan, the recipe will yield 6 cakes.

2. Preheat oven to 425°F (218°C).

3. Coarsely chop the chocolate. Place butter into a medium heat-proof bowl, then add chopped chocolate on top. Microwave on high in 10 second increments, stirring after each until completely smooth. Set aside.

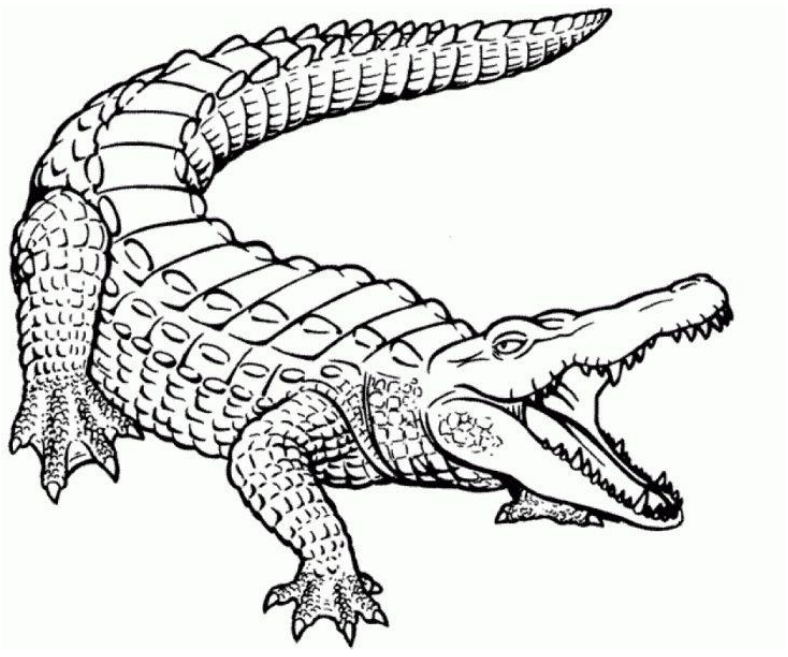
4. Whisk the flour, confectioners' sugar, and salt together in a small bowl. Whisk the eggs and egg yolks together until combined in another small bowl. Pour the flour mixture and eggs into the bowl of chocolate. Slowly stir everything together using a rubber spatula or wooden spoon. If there are any lumps, gently use your whisk to rid them. The batter will be slightly thick.

5. Spoon chocolate batter evenly into each prepared ramekin or muffin cup.

6. Place ramekins onto a baking sheet and bake for 12-14 minutes until the sides appear solid and firm– the tops will still look soft. *If baking in a **muffin pan**, the cakes only take about 8-10 minutes.
7. Allow to cool for 1 minute, then cover each with an inverted plate and turn over. Use an oven mitt because those ramekins are hot! The cakes should release easily from the ramekin. *If you used a **muffin pan**, use a spoon to release the cakes from the pan and place each upside down on plates.
8. Add toppings. Serve immediately.

Are there dinosaurs on Earth today?

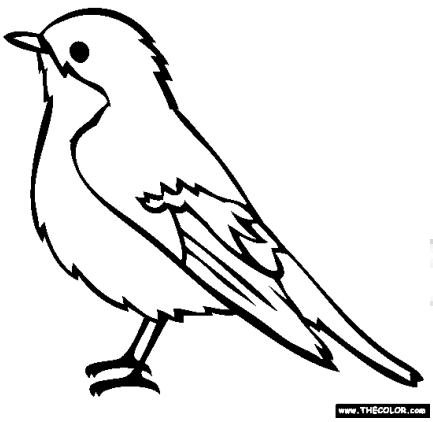
Archosaurs were the ancestor dinosaurs of crocodiles, but they were only distantly related to modern snakes, lizards, and turtles. This means that the reptile that most closely relates to dinosaurs is the crocodile.



But there is another group of animals that is considered the only living dinosaur: birds!

Modern birds' very distant great-grandparents are a group of two-legged dinosaurs known as theropods, whose members include the towering *Tyrannosaurus rex* and the smaller velociraptors. But this evolution did not happen overnight, little bird-like characteristics evolved one by one. First feathers, then a wishbone, and eventually wings and a beak, all while becoming smaller over time. Having these characteristics made bird-like dinosaurs faster and more agile, which is why palaeontologists think they managed to survive and evolve into birds we know today. Today there are at least 11,000 bird species.

Did you ever think birds were dinosaurs?



Modern day dinosaurs