

ACADEMY VIRTUAL FESTIVAL PALEOPALOOZA

A Nine-Day Festival of Fossils

October 17–25

Dinosaur Relay

One of the distinct physical characteristics that separates dinosaurs from other reptiles is their upright posture. Unlike lizards or alligators, whose legs are out to the sides of their bodies, dinosaurs' legs are under their bodies. This posture, which is also seen in birds and modern mammals, is more efficient for moving on land. In this activity, we will compare the different ways that dinosaurs moved and contrast these movements with how an alligator moves.

Know before you begin

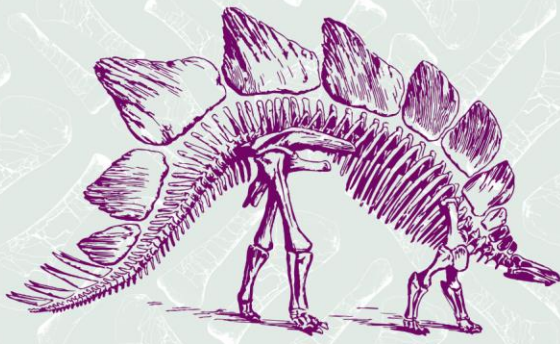
- *This activity can be done inside or outside*
- *All supplies are easy to find, substitute or modify*
- *Adult supervision is recommended*
- *Please choose a safe space to play*

Materials

- *A stopwatch, smart device with a timer or a partner who can count for you.*

Instructions

- *Walk like a velociraptor:*
 - *Velociraptors were similar to humans in the fact that they also walked on two legs. However, they used a long tail to balance themselves. Since we do not have tails, we will have to pretend.*
 - *Start by standing normally, feet shoulder width apart.*
 - *Lean forward, getting your torso as close to parallel with the ground as you can.*
 - *Tuck your arms in toward your body and lift your head up so you are facing forward.*
 - *Raise your heels so you are standing on the balls of your feet.*
 - *Keeping your heels up, walk around to get comfortable with this posture.*
 - *Once comfortable, try timing how long it takes to walk a set distance and compare the time to your normal walking posture.*
- *Walk like a Stegosaurus:*
 - *Stegosaurus walked on four legs, so this will be a bit more challenging.*
 - *Start by standing normally, feet shoulder width apart.*



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- *Lean forward until you can place your hands on the ground in front of you, shoulder width apart.*
- *Bend your knees while raising your heels up off the ground.*
- *Try moving in a couple of different ways.*
 - *First, move one arm or leg forward at a time. This is how modern elephants move.*
 - *Next, move one side (arm and leg together) forward at a time.*
 - *Lastly, move the opposite arm and leg forward at the same time.*
 - *Which was the most comfortable and why?*
- *Once comfortable, try timing how long it takes to walk a set distance and compare the time to your normal walking posture.*
- *Walk like an alligator:*
 - *Alligators, crocodiles and lizards also walk on all four limbs. However, unlike dinosaurs or humans, their legs are out to the sides and not under their bodies. This will be the most challenging posture to emulate.*
 - *Start by standing normally, feet shoulder width apart.*
 - *Slide your left or right foot out to the side until your feet are equal distance away from your body, making as close to a right angle (90 degrees) with your hips as you can.*
 - *Lean forward and place your hands on the ground, the same distance you're your body as your feet. (If this is too uncomfortable, bring your feet in a little bit.)*
 - *Bend your elbows and knees to as close to 90 degrees as you can.*
 - *Move the opposite arm and leg forward together to walk.*
 - *Once comfortable, try timing how long it takes to walk a set distance and compare the time to your normal walking posture.*
- *Which of these postures was the most comfortable for you? Which was the easiest?*
- *Based on that, why do mammals and birds walk like dinosaurs instead of like alligators?*