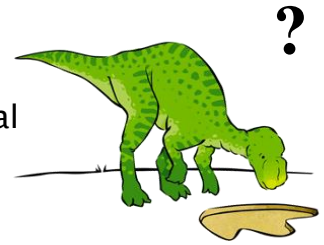


Story Tracks – Investigating dinosaur footprints

What is **ichnology**?

Living organisms leave behind traces like footprints, tracks, trails, borings, and burrows. Researchers study plant and animal traces to see how the organism lived and what it looked like.



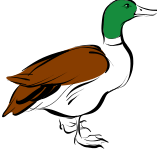
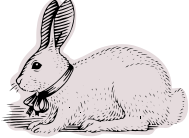
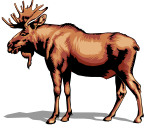
Paleo-ichnology is the study of trace fossils (very old traces).

Neo-ichnology is the study of modern traces. Researchers watch how modern organisms make traces to figure out what ancient animals looked like or did.

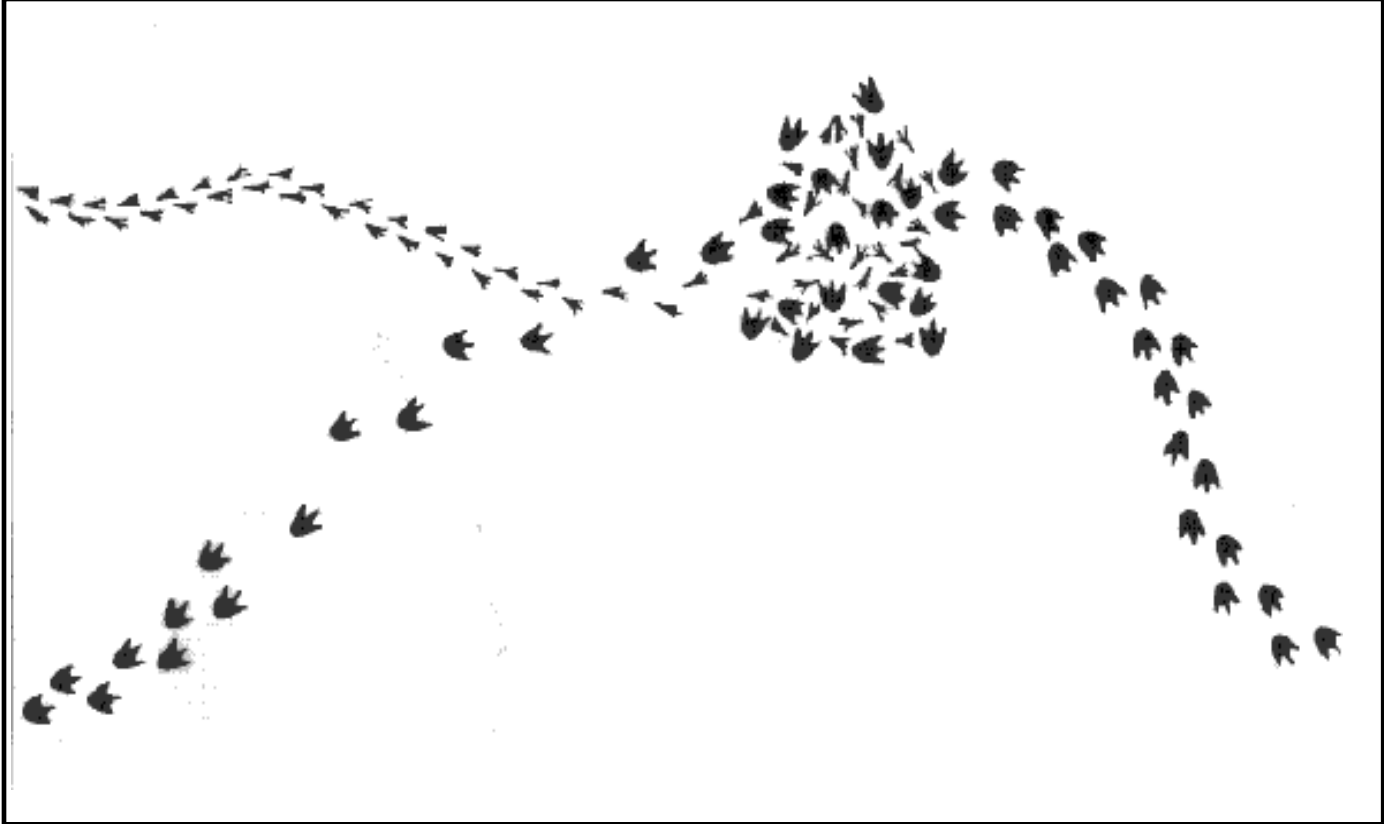
Draw a trackway that this animal might make:

A simple illustration of a woman walking towards the right. She is wearing a dark grey long-sleeved shirt and brown trousers.	A pink worm with a smiling face, shown in a wiggling motion. Dashed lines around the worm indicate its movement path.
A detailed illustration of a tiger sitting down, facing left. It has orange fur with black stripes.	A white seagull with grey wings and a yellow beak, standing on two yellow feet.

Draw a line to connect the animal to their tracks:



Use the dinosaur trackways to figure out what might have happened:



- ↪ How many dinosaurs were there?
- ↪ Draw arrows to show which way they were going.
- ↪ How many toes did each dinosaur have?
- ↪ How big were they?
- ↪ Circle where a dinosaur was walking.
- ↪ Draw a star where a dinosaur started running.
- ↪ Were the dinosaurs here at the same time?
- ↪ Can you tell if they had 2 legs or 4 legs?

Create a Story:

What happened in the picture?

Make your own trackway picture and a story to go with it.

Story Tracks – Teacher Extension and background

Ichthyology: is the branch of paleontology that deals with plant and animal traces or trace fossils. These traces are useful because they often hint at the behavior of the organism. The division of ichthyology dealing with trace fossils is called paleoichthyology, while neoichthyology is the study of modern traces. Parallels can often be drawn between modern traces and trace fossils, helping scientists to decode the possible behavior and anatomy of the trace-leaving organisms if no body fossils can be found. Just like fossils of hard parts (bones, teeth, scales, etc.), trace fossils are given scientific names. Types of trace fossils include burrows, tracks, trails and borings.

A track is an impression made as an animal moves across a sediment surface, such as a muddy tidal flat. A trackway is a series of tracks that can be used to understand how an animal moved and possibly for what purpose.

The goal of this activity is for students to investigate trackways and apply what they know from modern examples to a set of dinosaur trackways that tells a story.

Activity extension

The trackway image in the activity can be used, alternatively, you and your students can create a classroom-sized version. Using a large paper roll, tape the paper to the floor. Cut out different sized dinosaur footprint shapes from sponges and use different coloured paint for each dinosaur to make trackways on the paper. You can recreate the image in the activity or make your own.

Answers

- ↻ How many dinosaurs were there? *In the given image, there were two dinosaurs present.*
- ↻ Draw arrows to show which way they were going. *The toes show the direction in which the dinosaurs were moving.*
- ↻ How many toes did each dinosaur have? *Three.*
- ↻ How big were they? *Based on the size of the tracks, one was a larger dinosaur and one was much smaller.*
- ↻ Circle where a dinosaur was walking. *This is where the tracks are closer together.*

✎ Draw a star where a dinosaur started running. *This is where the tracks are farther apart.*

✎ Were the dinosaurs here at the same time? *Yes, we can tell this by the fact that the trackways are intertwined.*

✎ Can you tell if they had 2 legs or 4 legs? *The dinosaurs had two legs. With four legs, tracks can overlap from the front and back feet and often show uneven spacing.*

What happened in the picture?

A large and a small dinosaur are walking towards one another. The large dinosaur was hungry and spotted the smaller dinosaur, so it started running toward the smaller dinosaur. The smaller dinosaur then started running away, but it was too late. The large and smaller dinosaur fought, with the smaller dinosaur trying to get away. In the end, the larger dinosaur ate the smaller dinosaur and then walked away.