



### What are trace fossils?

A trace fossil is an indirect sign of life such as footprints, burrows, trails or coprolites (fossil poo). Trace fossils reveal information about the behaviour and lifestyle of organisms.

### Aim

To model and interpret trace fossils.

### Equipment

- Freshly raked sand pit or long jump pit
- Watering can or hose
- Students wearing shoes

### Method

- Water the sand so that it clings together. Ensure that the surface is freshly raked so that prints will be visible.
- Have two students cross the sand pit in parallel tracks. One should walk slowly and the other should run quickly.
- Record observations.
- Have another student walk across the existing tracks.
- Record observations again.



A coprolite is a trace fossil that can reveal details about what an animal ate and how completely the food was digested

### Observations

1. What differences do you notice in the stride length for walking versus running? \_\_\_\_\_

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2. How do the footprints differ for walking versus running? \_\_\_\_\_

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3. When footprints cross each other, what clues tell you which footprint was laid down first? \_\_\_\_\_

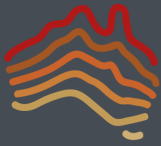
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### Discussion

1. How did the trackway model allow you to infer the pace (walking or running) of the students?

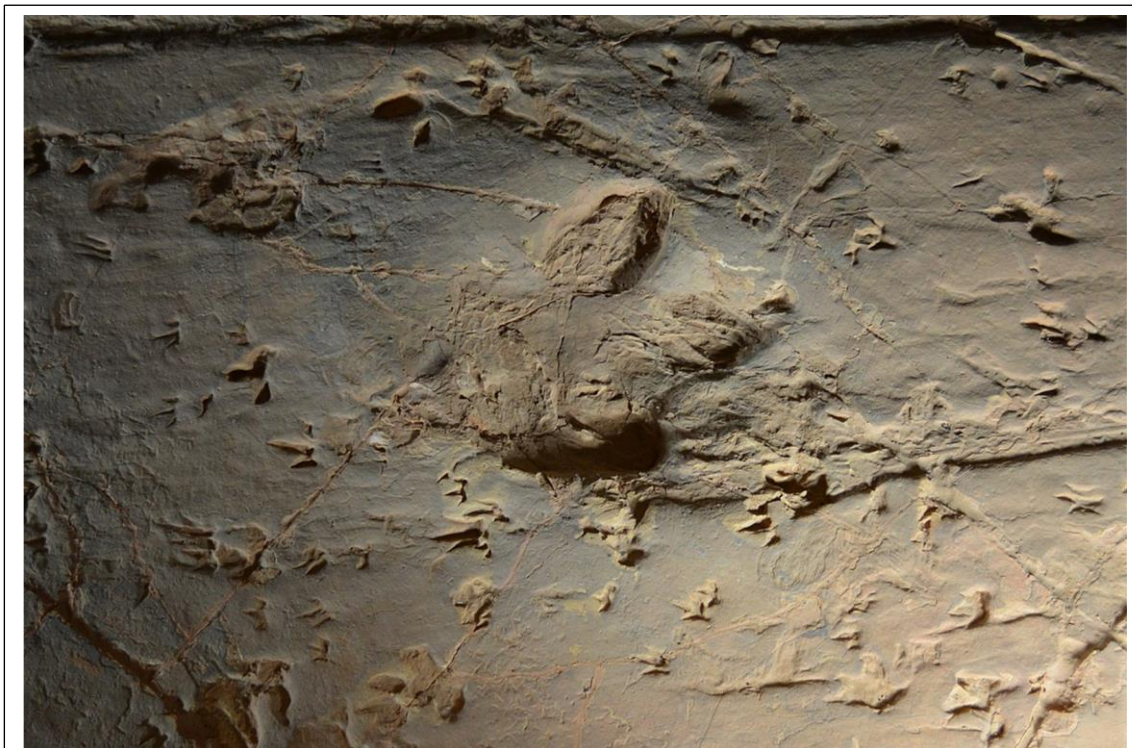
Explain how you interpreted the model. \_\_\_\_\_



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2. What other details of behaviour might be preserved in fossil trackways? \_\_\_\_\_



Dinosaur footprints in Lark Quarry, Queensland. Many little dinosaurs left their footprints, along with a large carnivorous dinosaur. (P Murphy 2018, Wikimedia Creative Commons)

### Explore

Discover [what we can learn from fossils](#) and learn more about [fossilisation](#) in the AusEarthEd blog.

Watch [the AusEarthEd video](#) about fossilisation and try some of the experiments at home.

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