

DINOSAUR FOOTPRINTS

Purpose

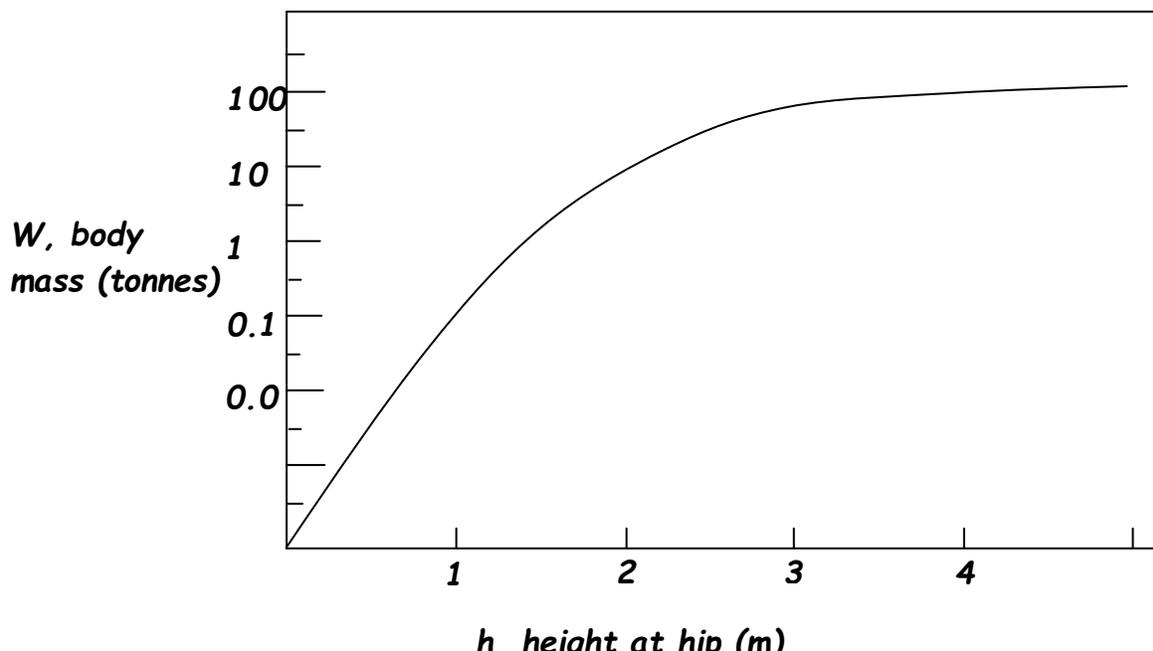
The first part of this activity is an exercise in recording data and the second part is to see what information can be deduced from footprints.

Instructions

1. Imagine that you have come across the footprints in a remote area to which you are never likely to return. Make as many measurements as you think appropriate and suggest what other ways of recording the tracks you might consider. (Imagine that the tracks are real impressions.)
2. Try to deduce from the prints whether the dinosaur walked like a crocodile, a dog, or a kangaroo. Give your reasons.
3. One method of getting some idea of the size of the dinosaur is to assume that the height at hip is 4 times the foot length. Calculate the hip height of the animal using this method.
4. The graph below shows the estimated weight against hip height for dinosaurs. Use it to calculate the weight of the dinosaur that made your footprints.

Graph

Modified from T. Thulborn 1990 *Dinosaur Tracks* Chapman and Hall London



Teacher's Section

Requirements

A trail of prints

Tape measures

Reference

Dinosaur Tracks by Tony Thulborn

The book includes lots of examples of tracks.

Making the prints (1 hour)

Decide what type of prints you want: a dinosaur with all prints the same size or one with larger back than front feet.

Cut the shapes of dinosaur prints out of hardboard. Two holes are drilled in each. The "prints" are then laid out in a line on grass and 15cm nails put through the holes to hold them in place.

Alternatively make a stencil by cutting the shape of the print from the centre of a piece of hardboard 60cm by 60cm. Black spray paint used to mark the prints onto concrete.

Results

Some of the things they should have recorded: track direction, track length, number of right side, left side tracks, track width, stride (distance from tip of left toe to tip of next left toe), orientation of feet to track, length and width of feet, number and length of toes.

Time

30 minutes