

Line them up: prehistoric animals by length

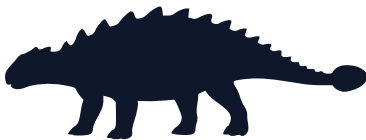
Ages 7–11 · Measurement: comparing and ordering lengths, metres, how many times longer

Name _____ Class _____ Date _____

These six animals lived long ago. On this page they are all drawn the same size, so the pictures will not give you the answer. Use what you know, and guess!

1. Guess the order

Write 1 in the box of the animal you think was the shortest from nose to tail, and 6 for the longest.

A

Ankylosaurus magniventris

My guess

B

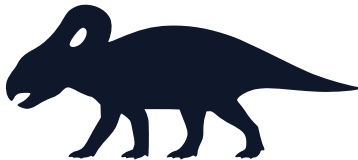
Archaeopteryx

My guess

C

Apatosaurus louisae

My guess

D

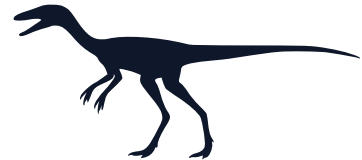
Protoceratops andrewsi

My guess

E

Mosasaurus hoffmannii

My guess

F

Compsognathus longipes

My guess

2. Talk about it

Which animal was the hardest to guess? Why can a picture make something look bigger or smaller than it really is?

3. Check with the real lengths

Here are the lengths from nose to tail. Scientists work them out from fossils.

Animal	Length
A Ankylosaurus magniventris	8 m (26 ft)
B Archaeopteryx	50 cm (1 ft 8 in)
C Apatosaurus louisae	22 m (72 ft)
D Protoceratops andrewsi	2 m (6 ft 7 in)
E Mosasaurus hoffmannii	12 m (39 ft)
F Compsognathus longipes	1.25 m (4 ft 1 in)

Write the letters in the real order, from the shortest to the longest:

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How many of your guesses were in the right place? _____

4. How many times longer?

a) How many Protoceratops andrewsi, nose to tail, would make one Apatosaurus louisae?

Answer: _____

b) About how many Compsognathus longipes would make one Ankylosaurus magniventris?

Answer: _____

5. Measure it out

Go outside with a tape measure or a trundle wheel. Mark out the length of Protoceratops andrewsi (2 m) and of Mosasaurus hoffmannii (12 m). Stand at each end and wave to each other.

6. Head to toe

Measure how tall you are. About how many children your height, lying head to toe, would make one Apatosaurus louisae (22 m)?

My height: _____

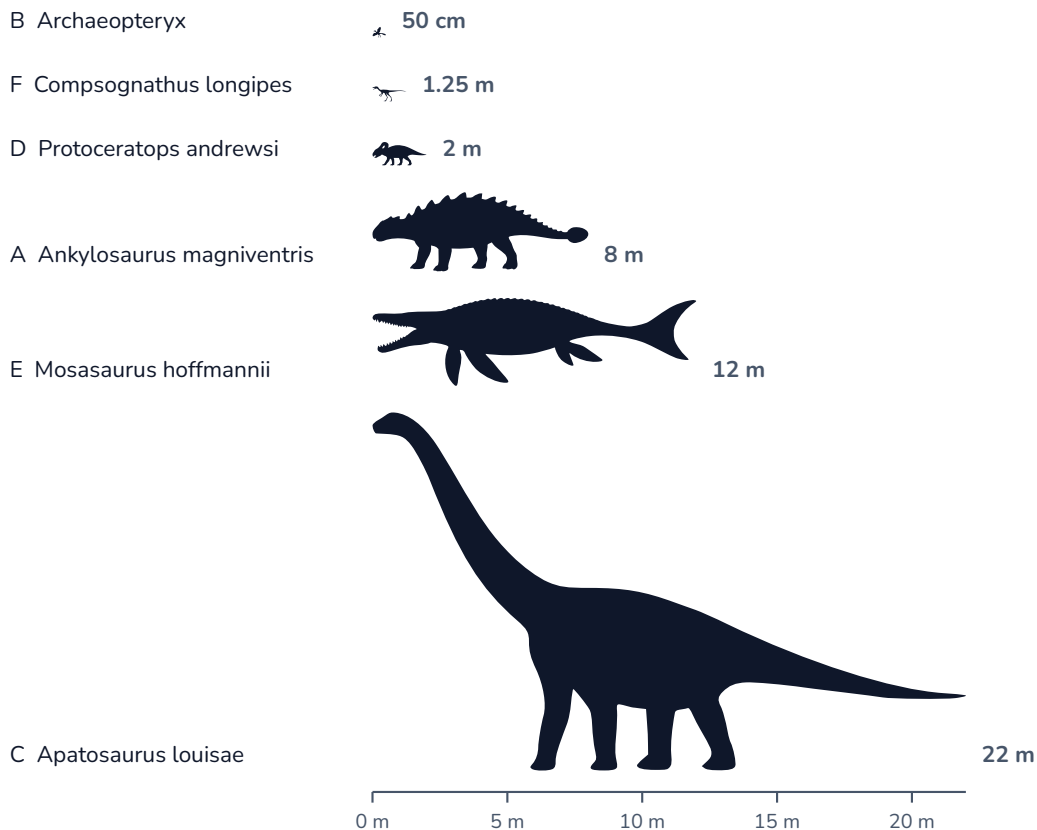
Children: _____

What students practise

Comparing and ordering lengths; reading lengths in metres (and feet); multiplicative comparison ("how many times longer"); measuring long distances outdoors. Print page 1 first and hand out page 2 after the guesses.

Answers

Real order, shortest to longest: B, F, D, A, E, C.



All six are drawn to the same scale here, so the picture shows the real difference.

4a) $22 \text{ m} \div 2 \text{ m} = 11$.

4b) $8 \text{ m} \div 1.25 \text{ m} = 6.4$, so about 6.

6) Example: a child 1.3 m tall: $22 \text{ m} \div 1.3 \text{ m} \approx 17$ children.

Good to know

Mosasaurus hoffmannii was a sea-living reptile, not a dinosaur. Sizes are typical values from the Magnitude catalogue, rounded (how we measure: magnitude.fit/methodology). Extinct animals are known from fossils, so their sizes are estimates. The silhouettes were generated with AI and traced to outlines; the numbers come from the catalogue, never from the pictures.