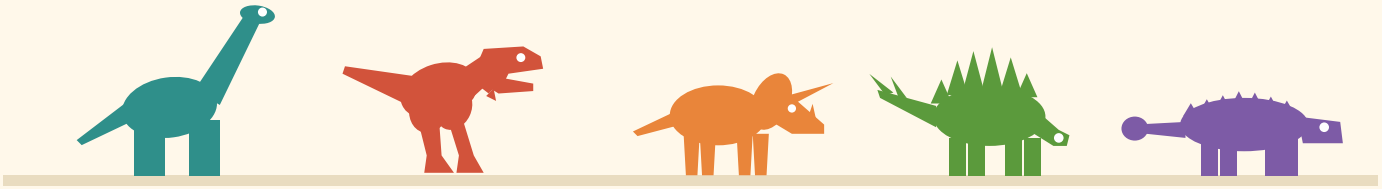
EXPLORING THE WORLD · SCIENCE

Dinosaurs

8 pages to measure, compare, match shadows, and dig for fossils · ages 3 to 7



12	6	1	1
meters to measure in steps	shadows to match	fossil dig	dinosaur to invent

Child's name: _____

For parents and teachers

Dinosaurs are a great way into **measuring, comparing, counting, and investigating**. Here children discover how big a T. rex was using their own bodies, practice visual skills with the shadows, and play paleontologist with modeling dough. The numbers are approximate, because scientists estimate sizes from the fossils they find.

How to use the pages

- **p. 2** **As big as a T. rex:** in a hallway, yard, or sidewalk, measure 12 meters (about 40 feet) and count the steps. Color one footprint per step.
- **p. 3** **Who's bigger?** Each footprint stands for 1 meter. Count, color, and write the number for each dinosaur.
- **p. 4** **Shadow match:** connect each animal to its shadow and find out which one isn't a dinosaur.
- **p. 5–6** **Fossil dig:** make dough fossils, hide them, and dig them up. Then record your finds on the paleontologist sheet.
- **p. 7–8** **Surprise egg:** invent your own dinosaur. Then the **certificate and answer key**.

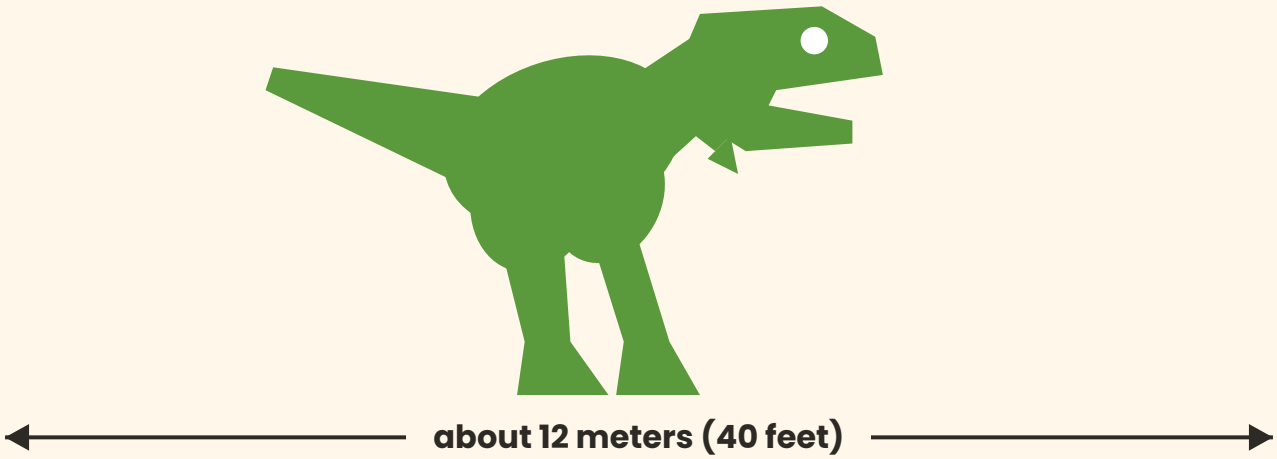
Materials

Crayons, child-safe scissors, chalk or shoes to mark the ground, modeling dough (store-bought or homemade, recipe on page 5), shells, leaves, or toy dinosaurs, a tub of sand or flour, and a paintbrush or old toothbrush.

2 As big as a T. rex!

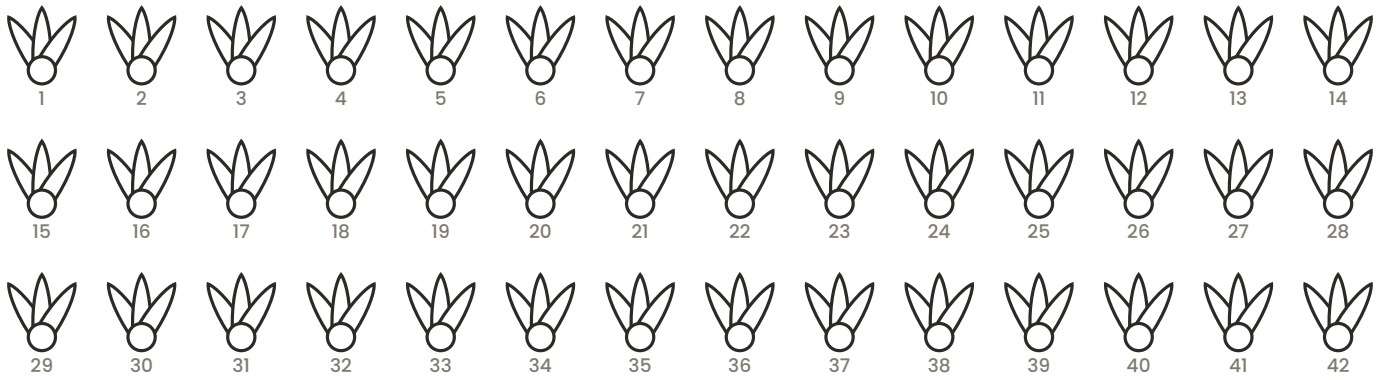
How many steps does it take to walk from its nose to the tip of its tail?

Name: _____ Date: _____



Let's measure

1. A grown-up marks the start on the ground with chalk or a shoe.
2. The grown-up measures 12 meters (40 feet) with a tape measure, or takes 16 big steps, and marks the end.
3. Your turn: walk from start to end counting your steps. Color one footprint for each step!



I took _____ steps. **The grown-up took _____ steps.**

Let's talk: who took more steps, you or the grown-up? Why? Did you know a T. rex was about as long as a school bus, and one tooth could be as big as a banana?

3 Who's bigger?

Each footprint stands for 1 meter. Color the footprints, count, and write the number.

Name: _____ Date: _____

meters



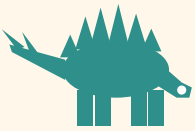
You, lying down





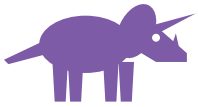
Ankylosaurus





Stegosaurus





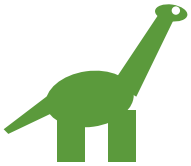
Triceratops





Tyrannosaurus rex





Brachiosaurus



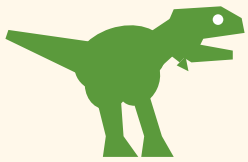
Challenge: Brachiosaurus was almost as long as two school buses! How many kids lying head to toe do you think would fit along it?

Approximate lengths, nose to tail tip. Scientists still debate the exact sizes.

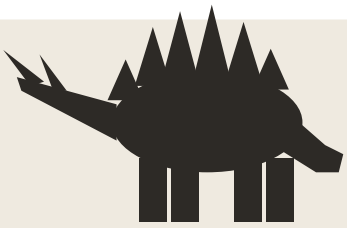
4 Shadow match

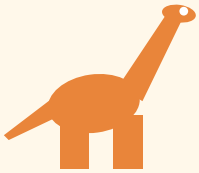
Connect each animal to its shadow. Then answer the question at the bottom!

Name: _____ Date: _____



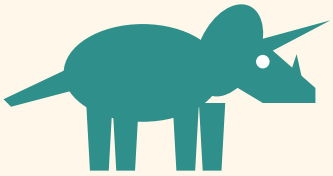
Tyrannosaurus rex





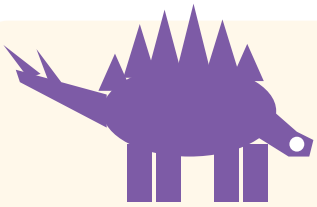
Brachiosaurus



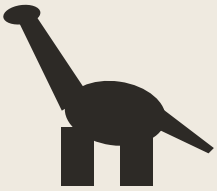


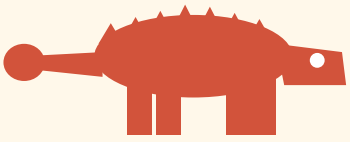
Triceratops



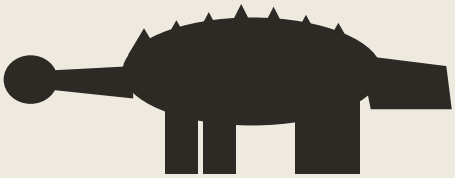


Stegosaurus



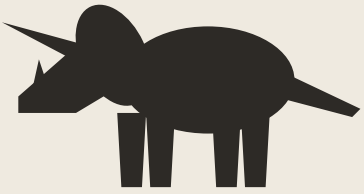


Ankylosaurus





Pteranodon



Detective question: one of them isn't a dinosaur! It's a flying reptile.

Who is it? Circle its name. Hint: it has wings.

Write it here: _____

5 Fossil dig

Make your own fossils from dough, hide them, then dig them up like a paleontologist!

Fossils are prints or remains of living things that were kept in rock for millions of years. That's how we know what dinosaurs were like!

1



Get the dough ready

Use store-bought dough or make the recipe below.

2



Make little balls

Roll balls about the size of a plum and flatten them with your hand.

3



Make a print

Press in a shell, a leaf, a toy dinosaur's foot, or a clean chicken bone, then lift it out carefully.

4



Let it dry

Homemade dough hardens in 1 to 2 days. Store-bought dough can go straight to the dig.

5



Hide the fossils

Bury the fossils in a tub of sand, dirt, or flour.

6



Dig slowly

Dig with a spoon and brush them off with a paintbrush or old toothbrush, just like scientists do.

Salt dough recipe

- 2 cups all-purpose flour
- 1 cup salt
- about ¾ cup warm water

Mix the flour and salt, add the water a little at a time, and knead until smooth. If it's sticky, add more flour. To harden it faster, a grown-up can bake it in a very low oven for about 1 hour, until dry.

Careful: not for eating! It's very salty and harmful to children and dogs.

6 Paleontologist sheet

Draw the fossil you found and answer the questions.

Name: _____ Date: _____

draw your fossil here

Fossil number: ◯

I named it:

_____

_____

Size: it measures

_____ fingers

Line your fingers up side by side and count!

What did you find?

shell · leaf · footprint · bone · tooth · something else

It came from a...

animal · plant · not sure

Was it easy or hard to find?

easy · so-so · hard

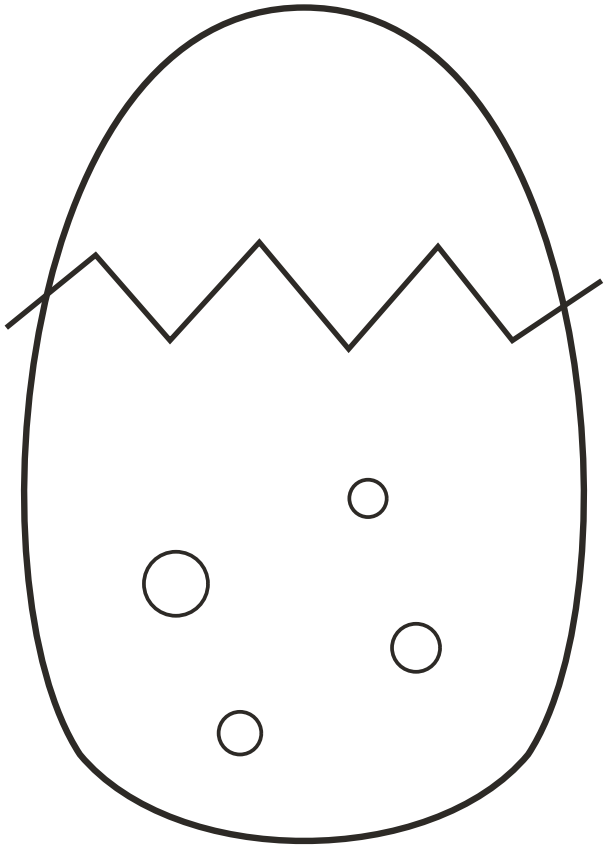
Dig with: spoon · paintbrush · toothbrush · magnifying glass

Did you know? Scientists who study fossils are called paleontologists. Dinosaur fossils have been found on every continent, even icy Antarctica!

7 Surprise egg

A dinosaur egg is hatching! Draw who's coming out.

Name: _____ Date: _____



My made-up dinosaur

Name: _____

It eats...

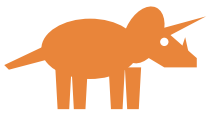
plants | meat | everything

It walks on...

2 legs | 4 legs | it flies!

It's as big as...

a cat | a car | a house | a building



CERTIFICATE

Junior Paleontologist

This certificate is awarded to

_____

who measured a T. rex with their own steps, matched the shadows, and **dug up fossils like a real scientist**!

_____ Date

_____ Grown-up's signature

✂ cut along the dotted line

Answer key (for grown-ups)

Page 2 · T. rex

Tyrannosaurus rex was about 12 meters (40 feet) long, about the length of a school bus, and lived about 66 to 68 million years ago in what is now North America. A young child usually takes 25 to 30 steps over that distance; an adult taking big steps, about 16.

Page 3 · who's bigger

You: about 1. Ankylosaurus: about 7. Stegosaurus: about 9. Triceratops: about 9. Tyrannosaurus rex: about 12. Brachiosaurus: about 22. A school bus is about 12 meters (40 feet) long.

Page 4 · shadows

Each animal has exactly one shadow with the same shape (some are flipped to face the other way). Pteranodon is not a dinosaur: it's a pterosaur, a flying reptile that lived at the same time.

Pages 5 and 6 · fossils

There's no right answer: what matters is observing, drawing, and telling about the find.