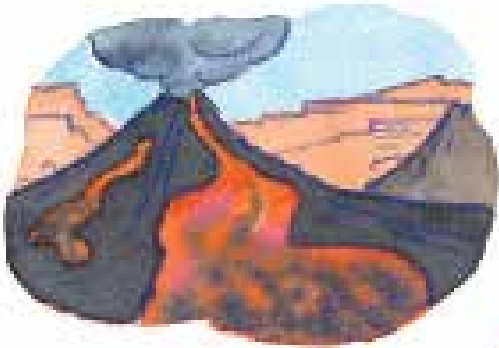


Rock Secrets

story and art by
Betsy James

A rock is never just a rock.

A rock is a mystery.

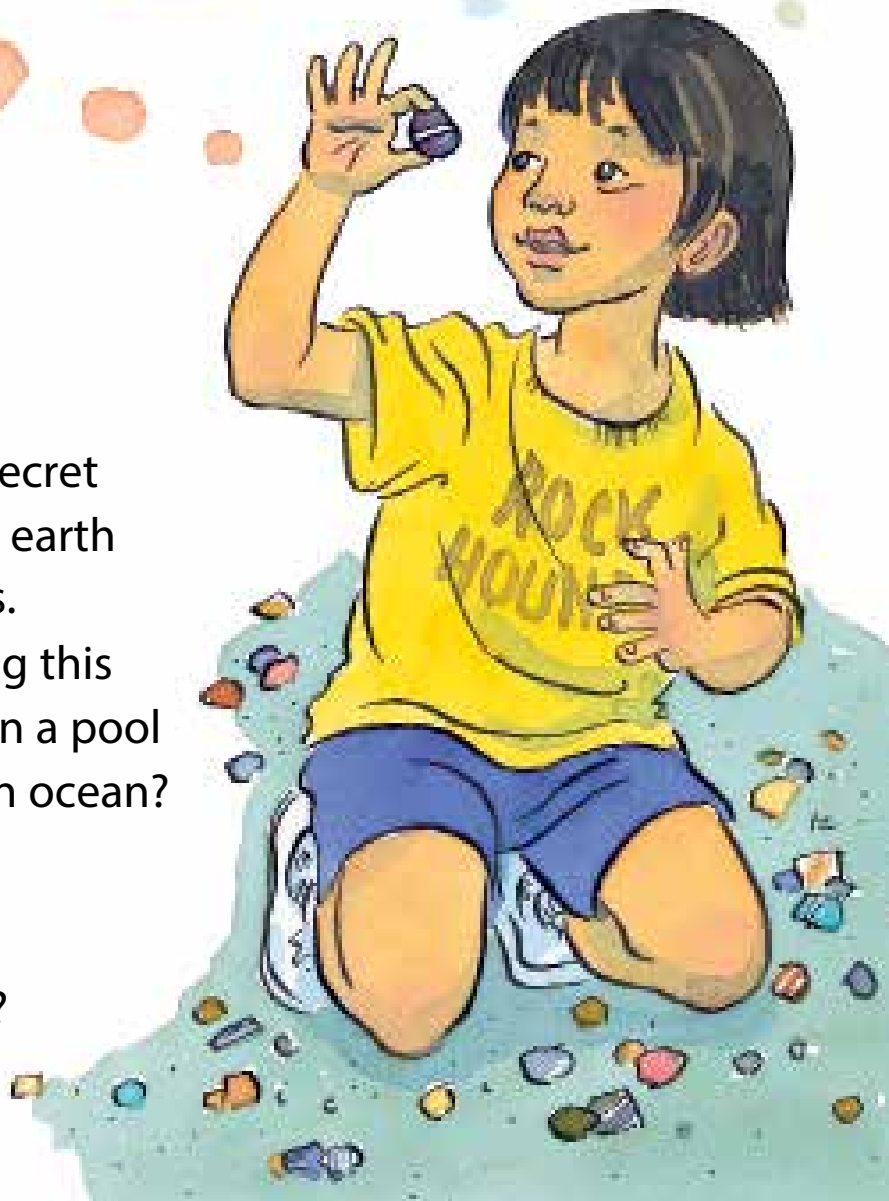


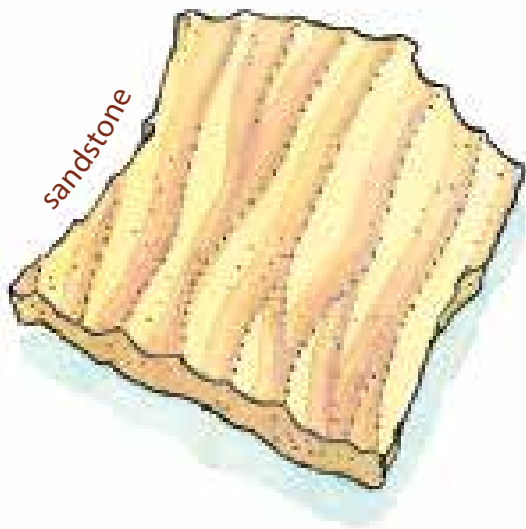
Pick up a rock. Any
rock. Does it look as
if it has a secret?

Because it does. A big
one. As big as a volcano.
Or an ocean. Or a ferocious
dinosaur. Every rock has a secret
story to tell about what the earth
was like in prehistoric times.

Could where you're sitting this
very second once have been a pool
of lava? Or the bottom of an ocean?
Or a tropical forest?

Maybe. How can you tell?
You pick up a rock.



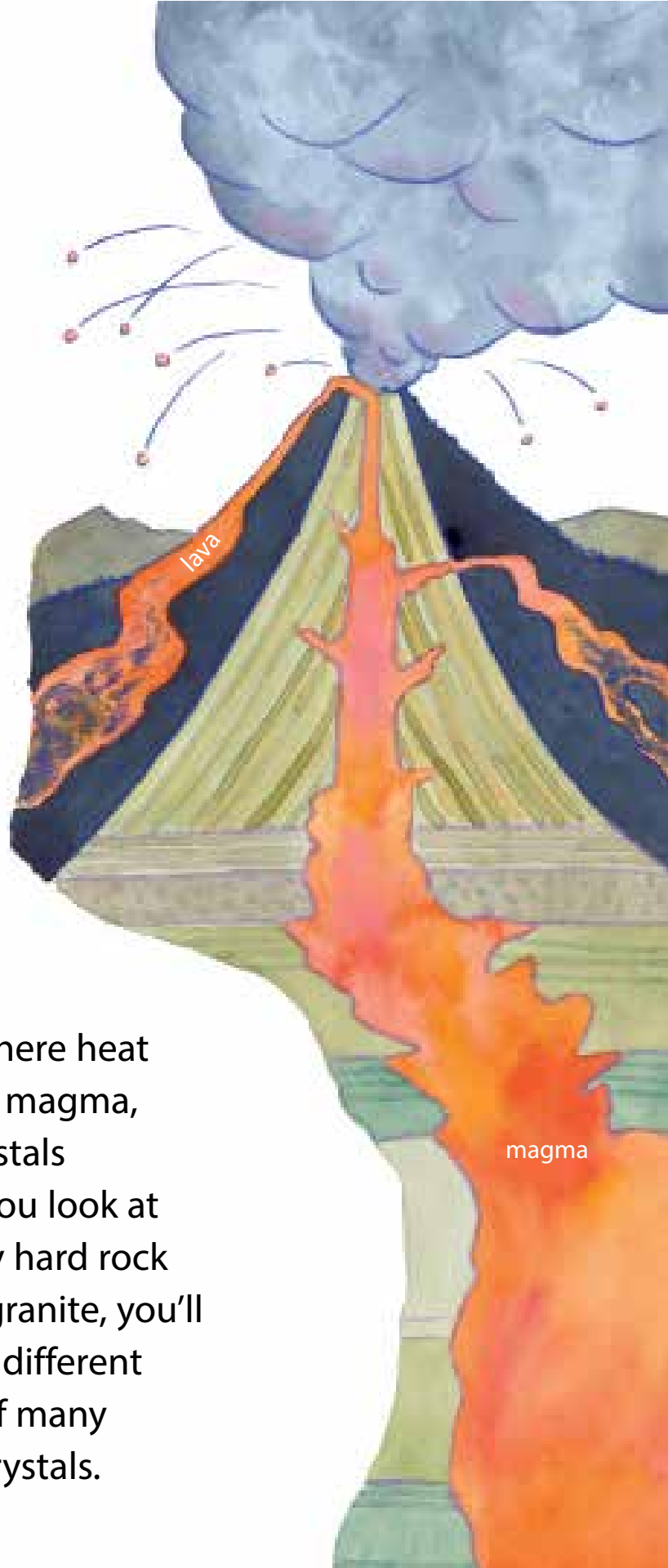
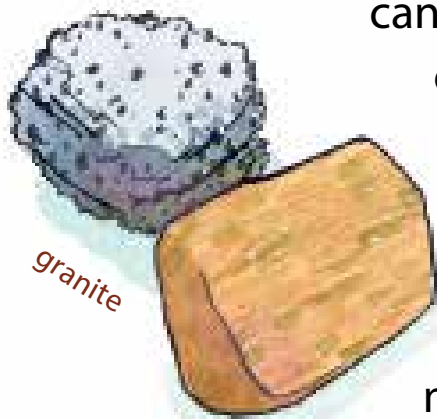


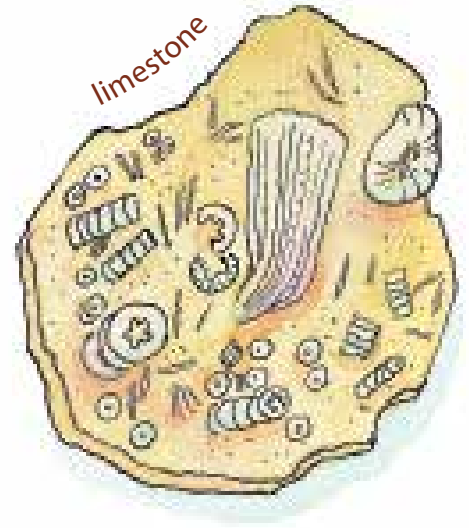
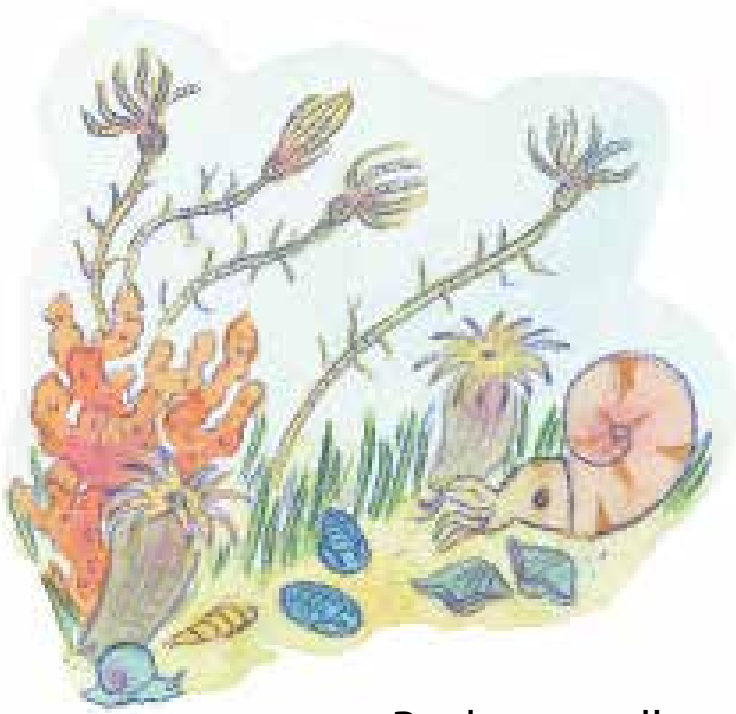
Is your rock sandy or gritty?
It's probably sandstone. To
make sandstone, millions of
years of wind and rain wore
down mountains until nothing
was left but grains of sand.
That sand made deserts and
beaches; in time it stuck together
and became rock. Sandstone
sometimes shows ripples left by
long-ago winds or waves.



Did you pick up a piece of shiny black obsidian? It came out of a volcano! When a volcano erupts, some lava may cool so fast that it hardens into this smooth, glassy rock.

Does your rock have sparkly crystals? Then it once spent time far underground, where heat from deeply buried lava, called magma, can help crystals grow. If you look at the very hard rock called granite, you'll see the different colors of many mineral crystals.





Rocks can tell stories of lives before our own. Long-ago oceans were full of animals, little and big; when they died, their shells and skeletons sank to the seafloor and formed limestone. In limestone you might see fossil sponges or corals, or even the shell of an animal that is now extinct. Then you'll know that your neighborhood was once covered by a great sea!



Or you might find a piece of petrified wood, made from a tree that died in an ancient forest. When mud covered the fallen tree, minerals that were dissolved in the water slowly seeped into the rotting wood and made an exact copy of it in hard rock.



dinosaur bone



If you're really lucky,
you might pick up a
piece of dinosaur
bone. How can a

scientist tell if the rock

she picks up is a dinosaur fossil? She
might touch her tongue to it. If it's
bone, tiny holes where blood vessels
once ran will usually make her
tongue stick a little.

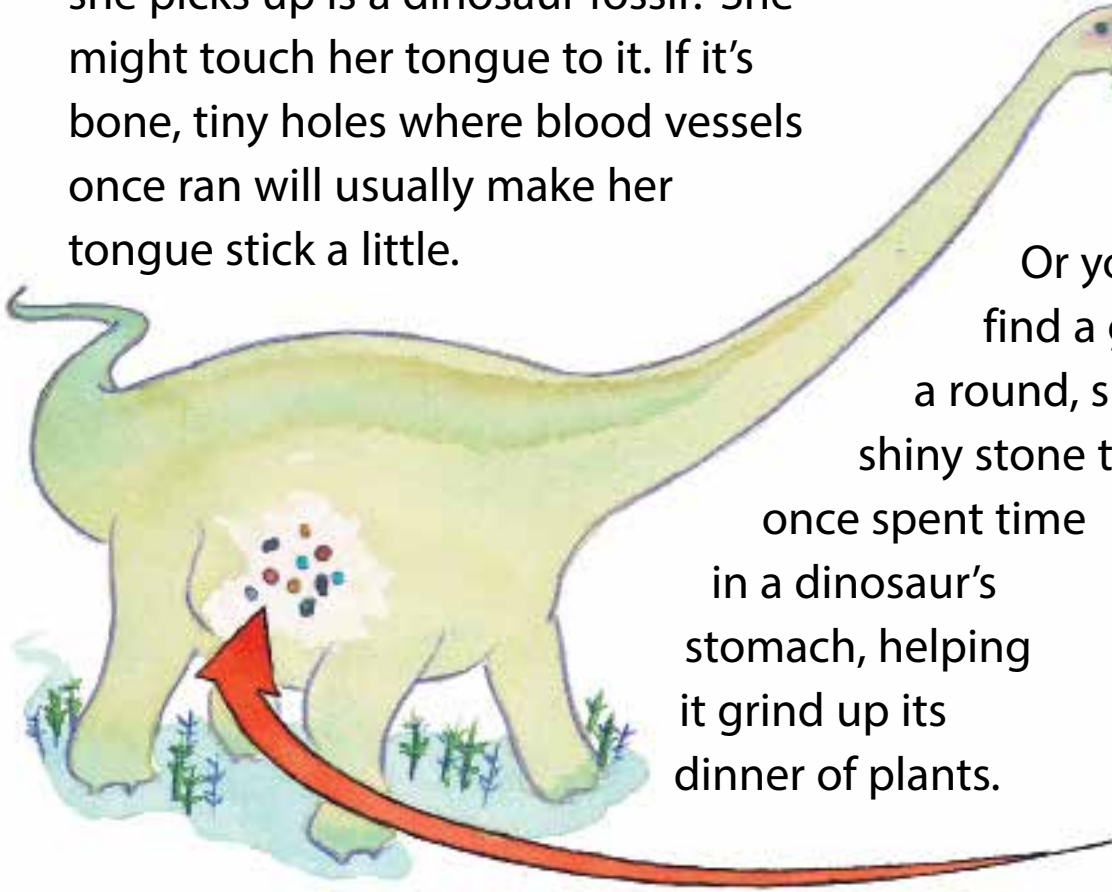


Or you might
find a gastrolith,
a round, smooth,
shiny stone that

once spent time
in a dinosaur's
stomach, helping
it grind up its
dinner of plants.



gastroliths



Does every rock have a secret story?

Yes, every single rock—even a tiny pebble
from your playground. It won't tell you its
story in words. You have to figure it out
by looking, feeling, asking, and
wondering. But first—

Pick up a rock!

