

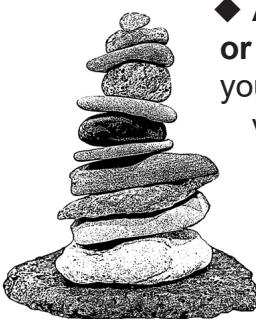
Kids Explore!

Build a Rock Tower Town

Stacking rocks is tons of fun. Next time you're at the riverside or beach, give it a try!

What You Need:

- ◆ **Rocks!** Collect some rocks that are hand-sized or bigger. Choose a variety with lots of different edges and interesting shapes.
- ◆ **A good stacking spot.** This can be your lawn or a sandbox (if you bring your rocks home with you) or right where you are when you find the rocks. Big flat rocks by the riverside or beach sand are nice places for building tall towers.
- ◆ **Patience...and a sense of humor!** Sometimes it takes a long time to get a stack to stay stacked...and quite often, your towers will tumble!



◆ **A smartphone or camera.** Take your pictures or videos quickly!

Even if your tower only lasts a moment, you can

capture it for all of eternity on film. And the tumbling part makes for good drama as well!

How to Do It:

- 1) Decide whether you're going to make a stack of similar rocks, for example, pancake-shaped rocks, or a stack that looks like it defies gravity. If you're going for the impossible look, try using a vertical bottom and a horizontal top.
- 2) As you stack, try to find each rock's special balancing point relative to the one below it. It takes a steady hand to make this happen, so don't give up quickly. Take advantage of little flaws and cracks in your rocks to help find this balancing point.
- 3) Send a picture of your rock towers to us at info@nearbynature.org and we'll post it on our website!
- 4) For a local look at some cool rock towers, see the Willamette River below the Frohnmayer Footbridge. If you go tubing in the river, you can build towers here yourself!

Fun Picture Books About Rocks

Everybody Needs a Rock, by Byrd Baylor, 1974: Anyone who has ever collected a rock will love this simple picture book about what makes each rock special.

On my beach there are many pebbles, by Leo Lioni, 1961: A lovely black and white picture book that features all sorts of special rocks, from peoplepebbles to letterpebbles!

Tell Me Why

Lots of the round rocks I find when I go to the river have little holes in them?



No...they are not from the moon! But they do have a story to tell. These rocks are round because their edges have been smoothed by rolling in the river, but they originally came from volcanoes! They started out as **magma**, molten (melted or liquid) rock inside a volcano. When magma erupts, it is called **lava**. Lava cools outside of volcanoes, and gets hard. As it cools, sometimes little gas bubbles get trapped inside...and those little bubbles become the holes in the rocks you are finding! Some rocks, called **pumice**, have so many tiny holes that they actually float! Many of the rocks that you are probably finding around this area are called **scoria**, and they don't float, but they're still pretty interesting!

So where are the volcanoes that produced these rocks? The Coburg Hills are old volcanoes, and the Cascade Mountains are also volcanic, and not quite so old. South Sister was active as recently as 2,000 years ago, which is practically yesterday in geological time!

For more information about Oregon geology, check out the book *Roadside Geology of Oregon* by Marli Miller.