

# GRADE 4 SCIENCE

## Earth's Changing Surface

### ROCK IT OUT!

In this unit, your child will investigate features and processes of the Earth's surface. They will explore and compare rapid Earth processes like volcanic eruptions to slower ones like weathering and erosion. They'll apply their knowledge and design solutions to mitigate the impacts of these processes on humans.

We will learn about volcanoes and where they exist in the world. Have you ever seen an active volcano in real life? Show [these amazing pictures](#) of active volcanoes to your child and talk about what it would be like to be close to one when it erupts.

Did you know that there are different kinds of volcanoes? The thickness of the lava can explain the shape and eruption pattern of the volcanoes. Different lavas create different shapes and trap gases differently.

You can support this week's learning by watching this high definition video of lava flowing in Hawaii with your child. See if you can figure out the shape of the volcano that's producing the lava. (hint: the lava is pretty thin so it doesn't trap the gas very well.) Good luck!



### CRACKING UP

We will learn about weathering, the process when solid rocks break into smaller pieces. This can happen when plant roots grow into cracks or when freezing water expands in small cracks, exerting tremendous force on the rock to break it into pieces.

You can support this week's learning by taking a walk with your child around where you live. Together you can point out and discuss examples of weathering like cracks in the sidewalk, potholes in the street, or bricks that have started to chip away.





The Grand Canyon is one example of how weathering & erosion change Earth's surface.

## SLIDING AWAY

---

We'll explore landslides and how a steep slope plus rain can cause broken rocks to tumble and cause real damage. Your child will brainstorm solutions for preventing landslides, keeping people safe, and protecting property.

You can support this week's learning by picking a problem that your family is encountering and brainstorming solutions with your child. Examples of problems could be, "How do we do X? How can we prevent Y from happening?" Take a few minutes to write down some ideas together. Remember, when you're brainstorming, there are no bad ideas! After you've generated some ideas, discuss them and decide which idea you think has the most promise.



## READERS' CORNER

---

Here are some book suggestions to learn more about Earth's changing surface that are available on [Scholastic Literacy Pro](#):

*Volcanoes* by Scholastic

*Volcanes ¡A correr!* by Laaren Brown

*Erosion* by Scholastic

*El ciclo de las rocas* by Kirsten Larsen

*Landslides* by Scholastic



Prepare • Empower • Inspire