

Remote Learning: TPS Science Grade 4, May 18 - May 29

Our Planet & Its Weather: Family Resource Sheet

This week's science work is focused on weathering and erosion. Weathering and erosion work together to change the land on Earth. **Weathering** is when moving water or blowing wind breaks apart or changes large rocks and land. **Weathering breaks things up into smaller pieces.** **Erosion** is when strong winds and moving water carry or move small pieces of rocks and soil somewhere else. **Erosion moves the soil, sand, and tiny rocks that weathering leaves behind.** Here are some activities to help you learn about these two processes!

- ❑ [CLICK HERE](#) or go to page **S2** for an article about erosion. Circle or underline important information as you read. When you are finished, on page **S4** write a sentence describing each: erosion by water, wind, and ice. After that, write the definition of weathering.
- ❑ Water moves from high places to lower places and takes tiny rocks and soil with it. This is an example of **erosion**. You can try this at home with a little help from an adult. This could get a little messy so make sure you are outside or that you protect your table!
 - ❑ Get two pieces of plain paper. Make a fist. Crumple it around your fist. Take the papers off and then crumple the paper a little more.
 - ❑ Now uncrumple the paper. You made a mountain! Can you see it? If not, reshape it.
 - ❑ Use a marker and color in the highest folds or peaks of the mountain. Pretend the ink is rocks and soil.
 - ❑ Now for the messy part. Use a spray bottle to squirt the mountaintop with 5 sprays. If you don't have a spray bottle, you can use your hand to flick water on top 8 or 10 times. Tell someone what the rain represents!
 - ❑ Now wait. As the water moves down the mountain, it will take ink with it. What natural process is this? Write two sentences about what happened.
- ❑ Let's try **weathering**. You will need three cookies (any kind will work—even a piece of dry toast—but hard a chocolate chip is best), a plate, a q-tip, a toothpick (or pencil), and a cup of water. Go to page **S5** or [CLICK HERE](#) to find out which weathers the cookie the best! Which of the three was the best at weathering? How did you know?
- ❑ Now use candy to observe the difference between weathering and erosion. All you need is a single skittle or M&M, a cup of water, and a plate.
 - ❑ Use a dropper or your finger to drip 10 drops onto your candy. Draw what happens to the candy. Repeat this 3 more times for a total of 40 drops.
 - ❑ Go to page **S6** or [CLICK HERE](#) to record what you see and answer some questions.
- ❑ Weathering and erosion work together to reshape landforms. [CLICK HERE](#) or go to **S7** to read an article about valleys. Underline new or circle important information.
 - ❑ On a separate piece of paper answer these questions:
 1. What is a valley and how are valleys made? How long does it take?
 2. How do glaciers make valleys?
 3. How do weathering and erosion work together to make valleys?
- ❑ [CLICK HERE](#) for an article about erosion.
- ❑ If you can, [CLICK HERE](#) to visit Mystery Science or type in <https://mysteryscience.com/school-closure-planning> and click on “How could you survive a landslide?” for an optional video and activity.
- ❑ If you want to, you can also visit [BrainPOP](https://brainpop.com/) at <https://brainpop.com/> click on “Erosion” under “Earth's Systems” and “Weathering” under “Weather” for some optional videos.

