Science Learning Packet
Grade 2 Reader

Suggested science learning activities for SPS students during the COVID-19 school closure.

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Due to the COVID-19 closure, teachers were asked to provide packets of home activities. This is not intended to take the place of regular classroom instruction but will help supplement student learning and provide opportunities for student learning while they are absent from school. Assignments are not required or graded. Because of the unprecedented nature of this health crisis and the District’s swift closure, some home activities may not be accessible.

If you have difficulty accessing the material or have any questions, please contact your student’s teacher.
What's Stronger?
How Water Causes Erosion

by Lincoln Bergman and Jacqueline Barber
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1. Teachers should see that the pupil’s name is clearly written in ink in the spaces above in every book issued.
2. The following terms should be used in recording the condition of the book: New; Good; Fair; Poor; Bad.
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Water is powerful.

Water may not seem powerful. It flows around things. You can jump into it and swim through it. Still, water *is* powerful. It can make things change. This is a book about the power of water.

We often see water fall as rain. Even in a big storm, each raindrop is small. Is rain powerful? Can little raindrops make anything change?
What’s stronger, raindrops or a hill?

When rain falls, raindrops hit the ground. The raindrops break off little pieces of rock and soil. Raindrops collect into streams of water. The water flows downhill. It carries the pieces of rock and soil with it. Many raindrops together can break off and carry away many pieces of soil and rock. Losing pieces of soil and rock makes a hill smaller. This is called erosion.

While rain may not seem powerful, it is! Rain causes hills and other landforms to change.
What’s stronger, a stream or a boulder?

Really big rocks are called boulders. The boulder in this picture is huge! It looks very **stable**. Could a stream move this boulder? Believe it or not, the answer is yes. In a flood, more water flows through a stream than usual. The water moves very fast. Flood water can be powerful enough to move big boulders.

Even when there is not a flood, water changes boulders. Streams make boulders smaller. Flowing water breaks small pieces of rock off boulders. The water **erodes** the boulders. Over time, boulders become smaller and more rounded.
What’s stronger, a river or a mountain?

Mountains look very stable. Still, over time, water can change them. Water flows down a mountain in streams and rivers. As it flows, the water breaks off pieces of rock from the mountain. Water carries the pieces down the mountain. Over a very long time, water breaks many pieces of rock off the mountain. The mountain becomes smaller and more rounded. Rivers and streams erode the mountain.

Rivers carry rock pieces down to the ocean. The rock pieces become sand.
What’s stronger, waves or a beach?

Many, many tiny pieces of sand together make up a beach. We find beaches where the land meets the water. Waves of water hit a beach over and over again. Each time a wave hits the beach, it can carry away pieces of sand. Waves can erode beaches. They can carry sand from one place to another.
What’s stronger, ice or rock?

These rock pieces used to be one whole boulder. Now the boulder is broken into pieces! What happened? The rock was eroded by ice.

Ice is frozen water. When water gets cold, it freezes into solid ice. This boulder had small cracks in it. Liquid water seeped down into the cracks. Then it got cold, and the water froze into solid ice. The ice pushed the sides of the cracks apart. It made the cracks wider. Pieces of the rock broke off. Ice broke the rock into much smaller pieces. Water can cause erosion even when it is solid ice!
What’s stronger, a glacier or a valley?

Did you know that glaciers are made of frozen water? Glaciers are like huge rivers of ice. They move very, very slowly. Glaciers move so slowly that you can’t see them move. Still, glaciers are very powerful.

As glaciers move, they break off pieces of rock. The glaciers can move the rock pieces to other places. By breaking off pieces of rock, a glacier can make a valley wider. Glaciers make narrow valleys into wide valleys shaped like the letter U.
Water erodes the land.

Now what do you think is stronger?

• Raindrops or a hill?
• A river or a mountain?
• Ice or rock?

Water is powerful. It causes rock to break apart. It moves rock from place to place. It can form rivers of solid ice. It erodes hills and even mountains. Water causes erosion. It causes landforms to change.
Glossary

**erode**: to wear down rock, soil, or sand

**erosion**: when rock, soil, or sand is worn down and moved from one place to another

**landform**: a feature of Earth’s surface, such as a mountain, a cliff, or a valley

**stable**: staying mostly the same
Books for *Changing Landforms*:
Landform Postcards
Gary’s Sand Journal
What’s Stronger?
Making Models of Streams
Handbook of Land and Water

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Can a raindrop change a mountain?

What about a river or some ice? Water may not seem like it can change rock, but what happens when there is a lot of water over a long time? Learn how landforms can change over time in this book all about the power of water.