

Land Change Over Time

6-8th Grade Chaperone/Teacher Guide



Remind students to read all of the **signs** and review the posted **photos** and **diagrams** to help them find answers.

Disciplinary Core Idea

Earth's Systems

Go to the Colorado Plateau Gallery and find the ramp with a drawing of a glacial valley.

Features of Glaciation

Name and describe two features of a glacial valley or landscape that a glacier has moved through. Use both illustration and writing.

Cross Cutting Concept

Cause and effect

Science & Engineering Practices

Developing and using models

Other Info?

**Supports Strand 7.2
Changes to Earth Over
Time**

How are glaciers "nature's junk collectors"?

Students can describe the changed **shape of the landscape** and/or **features left behind** such as lakes or debris deposits.

Encourage students to think of rocks or materials they have seen embedded in ice. How did they get there? How does this small phenomenon relate to glaciers?



**NATURAL HISTORY
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How do glaciers impact the land they flow over? Think in both a macro (big) and micro (small) scale.

Look at the rock sample on the wall. Describe how a glacier can change something as small as an individual rock.

Encourage students to **study and observe the sample**. What are the textures on the rock? Are there patterns or surface disruptions? What materials could cause these phenomenon on a rock?

Describe how the movement of a glacier can change an entire landscape. How does the movement of tons of rock and ice change the landscape it flows over? How does it change the area where it comes to rest?

Prompt students to think about how glaciers act like a chisel gouging into the landscape. What happens when smaller sections of debris are left behind? Where does all the material go when a glacier stops moving?

Explore the Basin and Range exhibit which shows the formation of the Great Basin's peaks and valleys. How are the valleys shown there different than a glacial valley?

Help students understand that the basin and range formation is caused due to **tectonic plate movement** in the Earth's crust. Glacial valleys are formed due to **movement of materials on top of the Earth's crust**.

