

**Photo**  
**MEDIA SPOTLIGHT**

## Devils Tower

Igneous intrusion towers over Wyoming

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<http://education.nationalgeographic.com/media/devils-tower-geology/>

Devils Tower is a 264-meter (867-foot) rock formation in northeastern Wyoming.

Devils Tower is made of phonolite porphyry. Phonolite porphyry is an **igneous rock**, meaning it was formed as **magma** or **lava** cooled. As the magma that formed Devils Tower cooled, it condensed into columns. Most of the columns that make up Devils Tower are **hexagonal** (six-sided).

Although magma formed Devils Tower, it was probably never part of a **volcano**. Most geologists agree that Devils Tower is an **igneous intrusion**, a place where magma from the Earth's mantle welled up between chunks of **sedimentary rock**. Devils Tower was probably formed by the same forces that created the Rocky Mountains about 65 million years ago.

Devils Tower was not visible for millions of years. Only as water and wind slowly **eroded** the surrounding landscape did the igneous intrusion **emerge**.

Today, the landscape continues to erode, worn away by **wind**, **precipitation**, and the nearby Belle Fourche River. However, Devils Tower is eroding, too. The base of the formation is cluttered with **scree**—rubble, boulders, and fragments of columns that have broken off the tower.

### VOCABULARY

Term	Part of Speech	Definition
<b>emerge</b>	<i>verb</i>	to develop or come into view.
<b>erode</b>	<i>verb</i>	to wear away.
<b>hexagon</b>	<i>noun</i>	shape having six sides.
<b>igneous intrusion</b>	<i>noun</i>	rock formation created by magma as it is pushed from the Earth's mantle into cracks or holes in the crust.
<b>igneous rock</b>	<i>noun</i>	rock formed by the cooling of magma or lava.
<b>landscape</b>	<i>noun</i>	the geographic features of a region.
<b>lava</b>	<i>noun</i>	molten rock, or magma, that erupts from volcanoes or fissures in the Earth's surface.

<b>magma</b>	<i>noun</i>	molten, or partially melted, rock beneath the Earth's surface.
<b>mantle</b>	<i>noun</i>	middle layer of the Earth, made of mostly solid rock.
<b>precipitation</b>	<i>noun</i>	all forms in which water falls to Earth from the atmosphere.
<b>scree</b>	<i>noun</i>	accumulation of broken rocks, boulders, and other material at the base of cliffs or other tall rock formations.
<b>sedimentary rock</b>	<i>noun</i>	rock formed from fragments of other rocks or the remains of plants or animals.
<b>volcano</b>	<i>noun</i>	an opening in the Earth's crust, through which lava, ash, and gases erupt, and also the cone built by eruptions.
<b>wind</b>	<i>noun</i>	movement of air (from a high pressure zone to a low pressure zone) caused by the uneven heating of the Earth by the sun.

## For Further Exploration

### Articles & Profiles

- National Park Service: Devils Tower National Monument—Geologic Formations
- National Geographic Travel: Top 10 Family-Friendly Hikes in the U.S. Parks

### Books

- National Park Service: A Report on the Geology of Devils Tower National Monument

### Images

- USGS: Devils Tower National Monument—A 3D Photographic Geology Tour

### Worksheets & Handouts

- National Park Service: Devils Tower National Monument—Geologic Resource Evaluation Report



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