

# See Where Your Rocks & Minerals Came From with Google Maps™

**Ward's  
Exclusive**



**Pinpoint specimen origin sites on the map**



**Click each pin to see specimen properties and features**



**View location-based data, images, climate, landscape and more**



**QR code and link included with your specimen collection**

Take a virtual field trip to the origin site of your rocks and minerals with dynamic Google Maps content, now included with select Ward's rock and mineral collections.

Travel around the globe to see where specimens naturally occur and teach students how geographic location, climate, and more affect the physical properties, features and occurrence of each specimen.

## **Google Maps Content is Now Included with These Collections:**

**470025-258 Ward's Introductory Minerals Collection**

**470025-228 Ward's Introductory Rock Collection**

**470025-222 Ward's Igneous Rock Collection**

**470025-226 Ward's Metamorphic Rock Collection**

**470025-224 Ward's Sedimentary Rock Collection**

**470015-806 Ward's Classroom Rock Collection**



**Try it Out!**

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# Igneous Rock Collection

470025-222 & 470154-094

Igneous rocks are formed directly by the cooling and solidification of the extremely hot liquid rock material that exists in the depths of the earth and sometimes approaches or reaches the surface.



1. **OBSIDIAN:** A volcanic glass formed from quick-cooling lavas. Sometimes streaked with brown, showing flow structure. Primitive people often used Obsidian for knives, arrowheads and other implements.
2. **PUMICE:** A light, frothy lava containing so many air cells that it floats readily on water. When this lava was still a molten liquid, it contained thousands of trapped air bubbles that were not able to escape until the lava hardened.
3. **SCORIA:** A volcanic slag formed in the same manner as Pumice, but having fewer and larger cavities. It is harder, heavier, and darker than Pumice. Scoria, Pumice and Obsidian all come from volcanoes.
4. **BASALT:** Very fine-grained, and dark in color. Usually hardens from lava flows and may contain gas cavities.
5. **RHYOLITE (Felsite):** A very fine-grained, light colored rock formed like Basalt, but of a different mineralogical composition.
6. **RHYOLITE PORPHYRY:** Small crystals of Quartz and Feldspar formed before the lava was suddenly chilled, leaving the groundmass quite dense.
7. **BIOTITE GRANITE:** Feldspar, Quartz, and black Biotite Mica can be easily recognized in this rock. Many granites are attractively colored and can be used as building stones.
8. **PEGMATITE:** A coarse-grained granite that contains Quartz and Feldspar. Muscovite Mica is often present. Many gem materials (Aquamarine, Tourmaline, Topaz) are found in Pegmatites.
9. **SYENITE:** Looks like granite, but contains no Quartz.
10. **DIORITE (Trap Rock):** Medium, dark colored rock that is often broken and used for road ballast.
11. **GABBRO:** Dark colored rock that is coarser grained than the Diorite.
12. **PERIDOTITE:** An ultramafic igneous rock with mafic minerals greater than 90% (primarily olivine and pyroxene).

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Visit <https://goo.gl/j6dFRk>

**Scan QR Code:**



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