



## Which Type Of Rocks Are Most Damaged By Freezing?

There are three basic types of rocks: sedimentary, igneous, and metamorphic. Sedimentary rocks are distinguished by their layered formation on the earth's surface. Igneous rocks are formed by the cooling of magma and lava from volcanoes. Their appearance can vary from dull to glassy. Metamorphic rocks transform from existing rock types whether it be previously an igneous, sedimentary, or an older metamorphic rock. In this experiment, we'll find out which of them is least damaged by frozen water.

### Problem:

In this experiment, students will find out which kind of rock (sedimentary, igneous, or metamorphic) is most damaged by frozen water.

### Materials:

- Sedimentary rocks (such as sandstone or limestone)
- Igneous rocks (such as granite or pumice)
- Metamorphic rocks (such as slate or marble)
- Several water bottles (each to hold each type of rock in one container)
- Water
- Freezer

### Procedure:

1. Take your rocks and put each kind in a separate water bottle.
2. Fill each with the same amount of water. Cover all the rocks. Label all the bottles.
3. Put into the freezer and freeze until the water becomes ice.
4. Take it out and thaw the ice.
5. Repeat steps 3-4 for about 3-5 more times for each bottle.
6. Take the rocks out and observe which kind looks the most damaged.
7. Record your results.

**Editor's Note:** Now go research the reason why the damage occurred.