

**Characteristics that may help you identify meteorites:**

1) Shape: Meteorites are irregular in shape (not oval or round). Some meteorites show somewhat faceted or flattened surfaces, while a few are cone-shaped. Unless heavily weathered, shallow pits or dimples resembling thumbprints may be seen on some parts of the surface—these are called regmaglypts.

2) Fusion crusts: Newly fallen meteorites will be covered by a thin (rarely thicker than your fingernail) black or brown coating that often shows shrinkage cracks. Underneath this thin coating (known as a fusion crust), most meteorites are not dark-colored. Where the fusion crust is missing, many meteorites show small bumps or flecks of silver metal or golden sulfide.

3) Other characteristics: Most meteorites are heavier than typical Earth rocks. Many, but not all meteorites are attracted to a magnet. This attraction will be strong for metallic meteorites, and weak or non-existent for stones.



NWA 2060 is a stony meteorite covered by a dark fusion crust. Relatively flat surfaces (facets) and numerous shrinkage cracks (white lines) are visible.



NWA 4859 is a stony meteorite which has lost a portion of its fusion crust, showing the lighter gray interior. Regmaglypts (pits) are visible in the fusion crust.



**Cascadia Meteorite Laboratory**  
<http://meteorites.pdx.edu>

The mission of our laboratory is to conduct meteorite research to help understand our place in the universe, and to share this knowledge with the wider community. Meteorites provide vital clues about the origin of the Earth and other planets, our solar system, and the molecules that serve as precursors to life. Meteorite research contributes to the larger field of planetary science which can help society evaluate how to utilize extraterrestrial resources, how to protect our planet from the devastating effects of a major cosmic impact, and how planetary climate change might occur. Our lab maintains and increases a carefully curated collection of meteorites which can be used for research and education. Through mentoring, classes, and outreach programs, laboratory personnel help inspire and educate students of all ages, teachers and the general public, and help to prepare a new generation of scientists.

**Our lab is funded by public donations.**

Donations to the Cascadia Meteorite Laboratory provide our lab with operating funds. Donations to the E.F. Lange Endowment build a fund to provide long-term funding via interest on the account.

**Yes, I/we want to support meteorite research and curation at Portland State University with a pledge or payment of:**

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*Thank you for your generosity!*

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