

Rock Talk



GEOLOGY

Geology is the study of the history of the earth. Rocks are an important link to the Earth's history and that's why geologists study them.

MINERALS

Minerals occur naturally in the Earth's crust and most are made up of crystals. Every mineral has its own unique chemical composition. In Nunavut, minerals are all around us.

- In the Baffin region? You'll find sphalerite here. It's also called black-jack and is the most important zinc ore. Polar and Nanisivik mines have produced sphalerite which is used to stop steel from rusting.
- In the Kitikmeot region? Diamonds are all around you, especially with the Jericho diamond deposit. Kimberlite is the source rock for most diamonds. Diamonds are the hardest of all known minerals and are used as cutting tools in industry.
- In the Kivalliq region? This region has a lot of chalcopryrite, the main ore of copper. This yellowish-green mineral is located near Ferguson Lake and North Rankin, and is used for water pipes and many other things.

A CLOSER LOOK AT... PYRITE

Don't let fool's gold fool you! Pyrite is fool's gold and looks a lot like real gold. Can you guess which sample is real gold and which is the imposter?

CHARACTERISTICS

SAMPLE A

- yellow in colour
- soft
- can easily be scratched with a knife
- can form nuggets

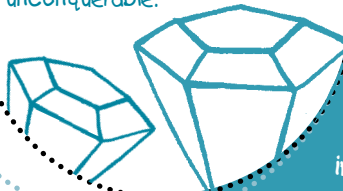
SAMPLE B

- yellow in colour
- hard
- cannot be scratched with a knife
- can form cubes

Answer: Sample A is gold and Sample B is pyrite (or fool's gold).

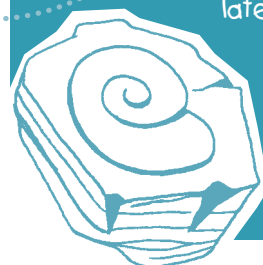
Digging deep... did you know?

Diamonds get their name from the Greek word adamas which means "unconquerable."



FOSSILS

Fossils are made when bones, shells, plants and other things get buried very quickly in the sediment in rivers or oceans or get stuck in ice, tar or plant sap. Erosion later reveals the fossil. You can learn a lot about extinct plants and animals from a fossil!

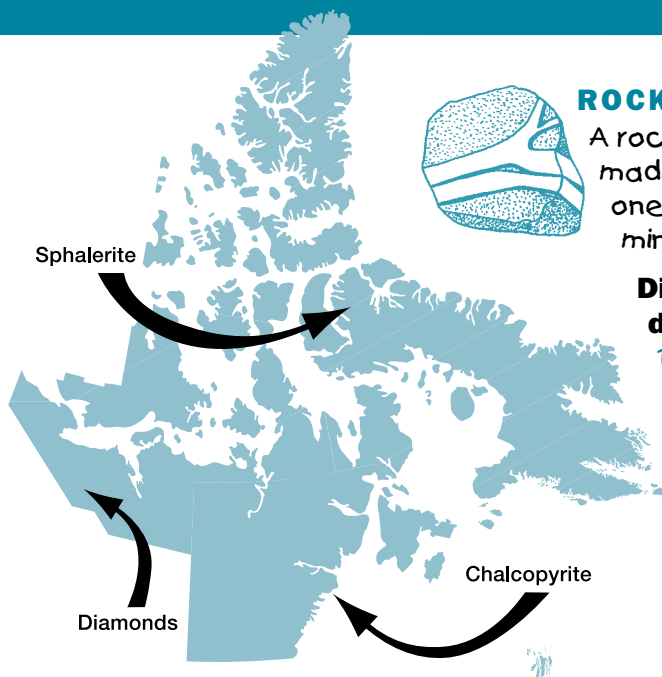


ROCKS

A rock is made up of one or more minerals.

Digging deep.... did you know?

The oldest known rock is located in the North – about 270km south of Kugluktuk and 380km southwest of Bathurst Inlet. The rock is called the Acasta Gneiss and is nearly 4 billion years old (that's 4,000,000,000!).



Get Rockin' with these Cool Web Sites!

Learn more about geology, volcanoes and earthquakes here: www.nrcan.gc.ca/gsc/education_e.html
 Check out this link and find out more about the history of Earth: www.cgq-qgc.ca/english/outreach/earth/index2.html
 Follow this link to meet the Indian and Northern Affairs Canada Minerals team: www.ainc-inac.gc.ca/nunavut/min/index_e.html
 Rock Talk is produced by Indian and Northern Affairs Canada, Nunavut Regional Office. We welcome your questions, comments or suggestions. Please e-mail us at nuninfo@inac.gc.ca

Are you a rock expert? Test yourself to find out.

1. The oldest rock is _____ years old.
2. _____ is the source rock for diamonds.
3. _____ is the study of the history of the earth.
4. Fool's gold is also called _____.

Answers: 1. Four billion 2. Kimberlite 3. Geology 4. Pyrite

If you have a geology question you want answered, send an e-mail to: nunavutminerals@inac.gc.ca