



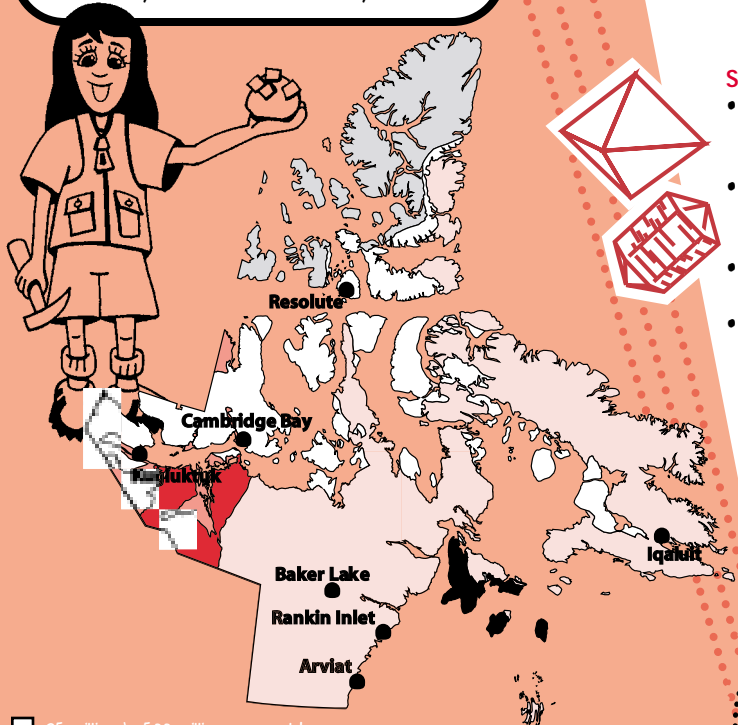
# Rock

Second Edition

# Talk

## HOW OLD ARE THE ROCKS WHERE YOU LIVE?

Live in Gjoa Haven? Then rocks around you are up to 500 million years old. Live in Clyde River? These rocks are at least 1.2 billion years old. That's really old!



- 25 million to 500 million years old
- Less than 1.2 billion years old
- 200 million to 1.2 billion years old
- 720 million to 2.7 billion years old
- 1.2 billion to 2.7 billion years old
- 2.5 billion to 4 billion years old

A CLOSER LOOK AT...

## QUARTZ AND DIAMONDS

Telling the difference - how hard could it be? Quartz and diamonds are sometimes mistaken for each other. Try to guess which sample is diamond and which sample is quartz.

### CHARACTERISTICS

#### SAMPLE A

- usually white or colourless but can be other colours
- cannot be scratched by a knife (that's hard!)
- mostly forms six-sided prisms
- one of the most common minerals around

#### SAMPLE B

- usually white or colourless but can be other colours
- is the hardest known mineral and will scratch most other minerals (that's even harder!)
- mostly forms eight-sided shapes (octahedrons)
- this mineral is rare

Answer: Sample A is quartz and Sample B is diamond.

### Digging deep...did you know?

Scientists believe the earth formed about 4.5 billion years ago. The oldest rock found on earth is nearly four billion years old, and the oldest meteorites and rocks from the moon are around 4.5 billion years old.

## Geological Time Scale



### Cenozoic

Age of Humanity, present to 1.8 million years ago  
Age of Mammals, 1.8 million to 65 million years ago



### Mesozoic

Age of Reptiles, 65 million to 230 million years ago



### Paleozoic

Age of Amphibians, 230 million to 345 million years ago  
Age of Fishes, 345 million to 425 million years ago



Age of Marine Invertebrates, 425 million to 570 million years ago

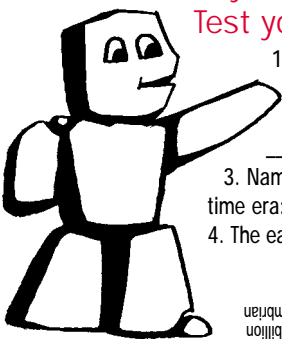
### Precambrian

570 million to about 4.5 billion years ago

## Explore more!

Time to learn more about geological time? Then check out these Web sites!  
[www.enchantedlearning.com/subjects/Geologictime.html](http://www.enchantedlearning.com/subjects/Geologictime.html)  
[www.cof.edu/ete/modules/msese/earthsysfir/geotime.html](http://www.cof.edu/ete/modules/msese/earthsysfir/geotime.html)

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



1. \_\_\_\_\_ is the hardest known mineral.
2. The rocks in Baker Lake are \_\_\_\_\_ to \_\_\_\_\_ years old.
3. Name one geological time era: \_\_\_\_\_
4. The earth is \_\_\_\_\_ years old.

Answers: 1. Diamond 2. 1.2 billion to 2.7 billion 3. Cenozoic, Mesozoic, Paleozoic or Precambrian 4. 4.5 billion



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## Contact Us

If you have a geology question you want answered, send an e-mail to: [nunavutminerals@inac-ainc.gc.ca](mailto:nunavutminerals@inac-ainc.gc.ca)

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 [nuinfo@inac-ainc.gc.ca](mailto:nuinfo@inac-ainc.gc.ca) or phone 867 975-4510. Visit our Web site at [www.inac-ainc.gc.ca/nu](http://www.inac-ainc.gc.ca/nu)