

Minerals, Gems & Bat Cave Level 2

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 Brain Teaser

 Important Facts

Unique Rock Formations



 Find the orbicular granite and concretion sandstone.

These are igneous and sedimentary rocks, two of the three types of rock found on our planet.

 Metamorphic rock is the third rock type. The ROM's marble floor (seen below the gold mosaic ceiling) is from Bancroft Ontario and is over one billion years old.

When common rocks (like granite) form under unique environmental conditions they can appear extremely unusual.

 What are the circular patterns in the granite?

 How were the various layers of this sandstone formed?

Space Rocks



Meteorites are rocks from space that have landed on our planet. Achondrites contain iron and a little nickel, like the core of our earth.

 We can never travel to the centre/core of our earth!

 Find the achondrite. Its polished surface shows the crystalline structure.

Chondrites are meteorites which preserve some of the oldest material from our solar system, chondrules and aluminum inclusions.

 Draw a chondrite meteorite.

Mineral Crystals

Minerals are the building blocks of rocks. Each mineral has a narrow range of properties (like colour or crystal shape) which help with identification.

 Amethyst is the purple variety of the mineral quartz. It is abundant in Ontario and is therefore our provincial mineral!



 Find amethyst quartz. Its crystals form hexagons.

 Draw and name examples of minerals with the following crystal forms.

Needle-like

Cube-like

Rhombus-like

Living Caves



Stalactites form when water drips from the ceiling and trace amounts of minerals are left behind. Stalagmites form when water lands on the ground and trace amounts of minerals build up.

 As long as water continues to drip these structures will continue to grow longer and higher. Caves with dripping water are called "living caves".

These structures can also be found in our Bat Cave. Our stalactites/stalagmites are made of limestone, a sedimentary rock.

 Listen carefully, is our Bat Cave living? _____



There is red liquid on the walls of the cave. It's not blood! The water contains the metallic mineral iron.

 Find these drip formations of the mineral calcite.

 What happens to iron when it gets wet? Why is the water red?
