

Part 2 – Cubed Minerals

Find the exhibit cubes (numbered) mentioned below. Read the properties and information about the mineral, and answer the questions below that correspond to that cube number.

Cube 1: Pyrite

Pyrite is known as Fool’s Gold. The metallic mineral pyrite, when struck with steel, will spark and emit a sulfurous odor. This mineral is used in the manufacture of _____.

Cube 2: Calcite

Calcite, whose chemical name is Calcium Carbonate, reacts with acid in what way?
_____.

Cube 3: Talc

The Mohs scale measures the hardness of a mineral to being scratched. The scale ranges from 1 to 10. What number is Talc on the Mohs Scale? _____.

Cube 4: Apatite

What is the chemical name of Apatite? _____.
(Saying that ten times fast will surely work up an “appetite”!) What fossil animal parts are frequently found in phosphate deposits? _____.

Cube 5: Kyanite

Is Kyanite a sedimentary, metamorphic, or igneous mineral? _____.

Cube 6: Gypsum

Gypsum, which can be colored _____, has a streak that is white. This is part of what defines and identifies this mineral.

Cube 7: Hematite

Hematite crystals come in a variety of forms—including thick to thin tabular, roses, botryoidal (resembling a bunch of grapes), micaceous (resembling mica), and earthy—but its crystal system is _____.

Cube 8: Gold

Gold, whose chemical name is Native Gold because it is an element on the periodic table (like Sulfur—Cube 10), rarely combines with other elements. It is used for _____.

Cube 9: Orthoclase

Orthoclase, potassium feldspar, is one of the major rock forming minerals in granite. Under short wave UV light, the mineral can fluoresce the following colors: * _____
* _____ (You can see fluorescent and phosphorescent minerals at the Fluorescent Booth.)

Cube 10: Sulphur/Sulfur

During volcanic activity, bright yellow Sulfur precipitates directly from sulfur-rich gases. What type of acid can be made from sulfur? _____.

Cube 11: Ulexite

Ulexite is nicknamed _____ because its fibrous structure allows images and light to be transmitted through it.

Cube 12: Halite

Halite has a _____ taste. It is used for _____.

Cube 13: Tourmaline

Tourmaline and window glass fracture with the same pattern which is called _____.

Cube 14: Sphalerite

Sphalerite has an interesting property whereby it flashes orange when scratched or struck. What is this property called? _____.

Cube 15: Beryl

Specific gravity is a measurement of how heavy an object is relative to the weight of water. What is the specific gravity of Beryl? _____.

Cube 16: Quartz

The tip of Quartz crystals are terminated by hexagonal pyramids. The crystal structure is _____.

Cube 17: Copper

Copper's crystal system is isometric. Its crystals can be various shapes, including _____.

Cube 18: Hornblende

The cleavage angles of Hornblende are _____ and _____ degrees.

Cube 19: Galena

The chemical name of Galena is _____. Galena is the most important ore of Lead.

Cube 20: Willemite

Willemite, a zinc ore, is strongly fluorescent and phosphorescent. What color is created by using short-wave UV light? _____. (You can see fluorescent and phosphorescent minerals at the Fluorescent Booth.)

Cube 21: Trilobite. Trilobites were once widespread throughout the ancient oceans. How long ago 'did Trilobites become extinct? _____million years ago.

Cube 22: Sodalite

The chemical name of Sodalite is _____. Its crystal system is _____.

Cube 23: Chalcopyrite

Chalcopyrite has a _____ streak.

Cube 24: Siderite

In acid (HCl), Siderite _____.

Cube 25: Malachite

Malachite is a semi-precious gemstone. Is the gemstone opaque or transparent? _____.

Cube 26: Stibnite

Stibnite crystals are striated lengthwise and slightly flexible. The crystal system is _____.

Cube 27: Horn Coral

Corals make their own skeletons out of which mineral? _____.

Cube 28: Cinnabar

The chemical name of Cinnabar is _____.

Cube 29: Fossil Hash

Fossil hash forms in what kind of environment, marine (ocean), or terrestrial (land)?

_____.

Cube 30: Barite

Barite is the most common barium minerals. It is used for _____

_____.

Cube 31: Muscovite

Muscovite is a light-colored mica. Its chemical name is _____.

Cube 32: Almandine Garnet

Almandine Garnet is the New York State Gemstone. Its color is _____.

Cube 33: Diopside

Diopside has short prismatic crystals with good terminations. Its crystal system is _____.

Cube 34: Fluorite

Fluorite can be the following colors: _____.

Cube 35: Diamond

Diamond and **Graphite (Cube 40)** are both formed from pure carbon. Diamond is at the top of the Mohs hardness scale at _____.

Cube 36: Wollastonite

The crystal system of Wollastonite is _____.

Cube 37: Magnetite/Lodestone

Magnetite crystals are usually octahedrons, sometimes dodecahedrons with striations, cubic (rare), and also massive. Its crystal system is _____.

Cube 38: Clam.

Is a clam a bivalve, a brachiopod, a gastropod, or a cephalopod?

_____.

Cube 39: Bornite

Bornite, known as Peacock Ore, has a _____ luster.

Cube 40: Graphite

Graphite has a streak that is _____. It is mixed with clay and fired to be pencil "lead."

Part 3 – Additional Questions

A) What is your favorite mineral you saw at the SHOW?

Why _____

B) What is one aspect about a mineral, rock, or fossil SHOW you find very interesting?

CONGRATULATIONS! You have completed the Earth Science Scavenger Hunt.
Go to the Earth Science Table and have your questionnaire stamped with
The Mid-Hudson Valley Gem & Mineral Society Stamp!.

PLEASE TAKE TIME TO ENJOY THE GEM & MINERAL SHOW!

Place MHVG&MS stamp here:

