

QUIZ 1

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DeBeers Consolidated Mines is _____.

Student Response	
A.	a group devoted to artisanal gold mining in Africa
B.	an association of independent jewellers and gemologists
<input checked="" type="checkbox"/> C.	the company that held much of the diamond monopoly until the mid 1980's
D.	the association that oversees ethical production of platinum group metals from South Africa
E.	a luxury brand founded in Paris and now present globally

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Which of the following are considered fundamental physical properties of minerals?

Student Response	
A.	Hardness
B.	Refractive Index
C.	Cleavage
D.	Streak
E.	Specific Gravity
<input checked="" type="checkbox"/> F.	All

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An eight-sided polyhedron is called a _____.

Student Response	
A.	Square
<input checked="" type="checkbox"/> B.	Octahedron
C.	Cube
D.	Tetrahedron
E.	Icosahedron

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The Periodic Table _____.

Student Response	
A.	is an organized collection of variables that define the value of gems
B.	groups elements based on the number of neutrons
C.	describes the valence state of atoms
<input checked="" type="checkbox"/> D.	is an organized collection of the known elements from which information can be extracted
E.	describes the many minerals of the Earth

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All crystals are "charge neutral".

Student Response	Correct Answer
True	True

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What is gold generally NOT used for?

Student Response	
<input checked="" type="checkbox"/> A.	Autocatalysts
B.	Investments
C.	Currencies
D.	Electronics
E.	Jewellery

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Which region in India is thought to be the source of high quality diamonds like the Hope and Koh-i-Noor diamonds?

Student Response	
A.	Muzo
<input checked="" type="checkbox"/> B.	Golconda
C.	Manipur

D. Bahia

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Which of the following famous diamonds was recut to improve its brilliance and how many carats were lost approximately during the process?

Student Response

A. Cullinan, ~90

B. Koh-i-Noor, ~90

C. Cullinan, ~50

D. Koh-i-Noor, ~20

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Which famous Colombian emerald was carved in India at the end of the 17th century?

Student Response

A. Mogul Emerald

B. Patricia Emerald

C. Incomparable Emerald

D. Hooker Emerald

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Which diamond is the record holder for the most expensive diamond ever sold at auction?

Student Response

A. Millennium Diamond

B. Wittlesbach Diamond

C. Koh-i-Noor Diamond

D. Cullinan Diamond

E. Hope Diamond

F. Star of Africa

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Put the layers of the Earth in order, from outermost to innermost.

1. [-----]

2. [-----]

3. [-----]

4. [-----]

5. [-----]

Student Response	Correct Answer
Put the layers of the Earth in order, from outermost to innermost. 1. [Lithosphere] 2. [Asthenosphere] 3. [Mantle] 4. [Outer Core] 5. [Inner Core]	Put the layers of f 1. [Lithosphere] 2. [Asthenospher 3. [Mantle] 4. [Outer Core] 5. [Inner Core] (1

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The term carat is applied to _____.

Student Response
<input checked="" type="checkbox"/> A. all gemstones
B. diamond
C. gold
D. platinum

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Match the following types of chemical bonding with their characteristics:

Ionic		Occurs between atoms in which outer electrons of an atom are effectively 'distributed' amongst the entire object
Covalent		Occurs between atoms in which outermost electrons are locally 'shared' between nearby atoms
Metallic		Occurs between two atoms in which an electron from one is 'donated' to the other

Statement	Response
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Ionic	Occurs between two atoms in which an electron from one is 'donated' to the other
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Covalent	Occurs between atoms in which outermost electrons are locally 'shared' between nearby atoms
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Metallic	Occurs between atoms in which outer electrons of an atom are effectively 'distributed' amongst the entire object
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Match how each of the following elements (major, minor, and trace) would be reported after a chemical analysis.

Statement	Response
Major elements	Reported in weight percent of oxide
Minor elements	Reported in weight percent of oxide or possibly on a per atom basis (ppm, ppb, or ppt)
Trace elements	Reported on a per atom basis (ppm, ppb, or ppt)

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Mid-oceanic ridges form at ____:

Student Response

<input checked="" type="checkbox"/> A. divergent plate boundaries

B. convergent plate boundaries

C. convergent and divergent plate boundaries
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D. mantle plumes

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Minor elements are sometimes included in mineral formulae.

Student Response	Correct Answer
True	True

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Minerals are naturally occurring homogeneous solids with definite (but generally not fixed) chemical compositions and crystalline structures. They are usually formed by inorganic processes.

Student Response	Correct Answer
True	True

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The Kimberley Process was voluntarily adopted by a majority of diamond producing and consuming countries before the release of the movie, "Blood Diamond."

Student Response	Correct Answer
True	True

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Which of the following statements is false?

Student Response
<input checked="" type="checkbox"/> A. Precious gems and metals have always been widely accessible to everyone, not just the very wealthy and influential.
B. Gold has been incorporated into almost all societies and sometimes forms the heart of much valued jewellery.
C. Precious gems and metals have also been used as international standards for which to value national currencies.
D. The value and importance of gems and precious metals can transcend political and religious borders.

E. Precious metals and gems have been used as currencies and financial investments.

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Which of the following statements is FALSE?

Student Response	
A.	Not all crystals are gems.
<input checked="" type="checkbox"/> B.	All gems are minerals.
C.	Rocks are composed of minerals.
D.	All minerals are crystals.
E.	Gemstones are highly valued.