Minerals II

Earth Sci

Name _____ Class _____ Date _____

1 Which statement is **best supported** by this scale?

Mohs' Hardness Scale			
1	Talc	6	Feldspar
2	Gypsum	7	Quartz
3	Calcite	8	Topaz
4	Florite	9	Corundum
5	Apatite	10	Diamond

Approximate Hardness of Common Objects	
fingernail (2.5)	glass (5.5)
copper penny (3.5)	steel file (6.5)
iron nail (4.5)	streak plate (7.0)

A A fingernail will scratch calcite, but not quartz.
B A fingernail will scratch quartz, but not calcite.
C A piece of glass can be scratched by quartz, but not by calcite.
D A piece of glass can be scratched by calcite, but not by quartz.

2 The **hardness** of these minerals is **most closely related to** the

Mohs' Hardness Scale			
1	Talc	6	Feldspar
2	Gypsum	7	Quartz
3	Calcite	8	Topaz
4	Florite	9	Corundum
5	Apatite	10	Diamond

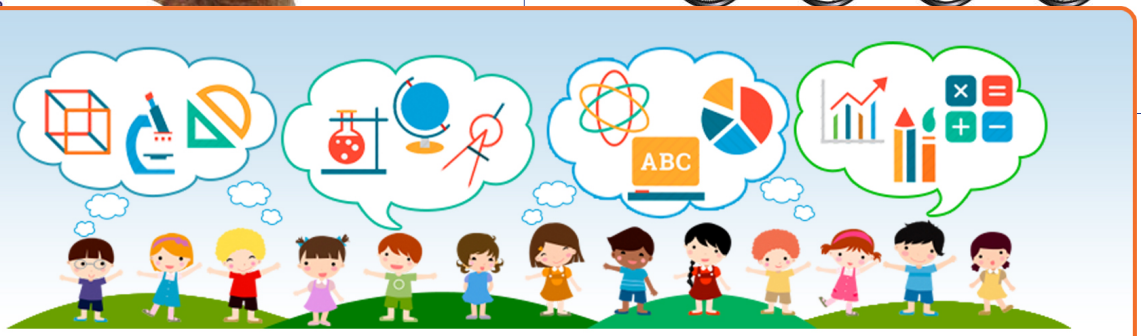
Approximate Hardness of Common Objects	
fingernail (2.5)	glass (5.5)
copper penny (3.5)	steel file (6.5)
iron nail (4.5)	streak plate (7.0)

A mineral's color
B mineral's abundance in nature
C amount of iron the mineral contains
D internal arrangement of the mineral's atoms

3 Which mineral is **white or colorless**, has a hardness of **2.5**, and splits with **cubic cleavage**?

A calcite
B halite
C pyrite
D mica

4 The diagrams below show the crystals of four different rocks viewed through the same hand lens. Which crystals most likely formed from molten material that cooled and solidified **most rapidly**?



5

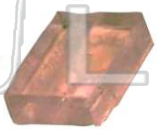
7

A is very hard
B is very dense
C contains large amounts of iron
D has a regular arrangement of atoms

B pyrite
C halite
D pyroxene

9 The photograph below shows a broken piece of the mineral **calcite**.

The calcite breaks in **smooth, flat surfaces** because calcite



A is very dense
B is very soft
C contains certain impurities
D has a regular arrangement of atoms

10 A student incorrectly measured the volume of a mineral sample as 83 cubic centimeters when the **actual volume** was 89 cubic centimeters. What was the student's approximate **percent deviation** (percentage of error)?

A 6.7%
B 7.2%
C 9.3%
D 14.8%

Minerals II

ANSWER KEY

Which statement is **best supported** by this scale?

Mohs' Hardness Scale			
1	Talc	6	Feldspar
2	Gypsum	7	Quartz
3	Calcite	8	Topaz
4	Florite	9	Corundum
5	Apatite	10	Diamond

Approximate Hardness of Common Objects	
fingernail (2.5)	glass (5.5)
copper penny (3.5)	steel file (6.5)
iron nail (4.5)	streak plate (7.0)

c

A A fingernail will scratch calcite, but not quartz.
B A fingernail will scratch quartz, but not calcite.
C A piece of glass can be scratched by quartz, but not by calcite.
D A piece of glass can be scratched by calcite, but not by quartz.

The **hardness** of these minerals is **most closely related to** the

Mohs' Hardness Scale			
1	Talc	6	Feldspar
2	Gypsum	7	Quartz
3	Calcite	8	Topaz
4	Florite	9	Corundum
5	Apatite	10	Diamond

Approximate Hardness of Common Objects	
fingernail (2.5)	glass (5.5)
copper penny (3.5)	steel file (6.5)
iron nail (4.5)	streak plate (7.0)

d

A mineral's color
B mineral's abundance in nature
C amount of iron the mineral contains
D internal arrangement of the mineral's atoms

Which mineral is **white or colorless**, has a hardness of **2.5**, and splits with **cubic cleavage**?

b

A calcite
B halite
C pyrite
D mica

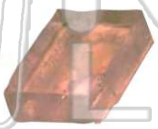
The diagrams below show the crystals of four different rocks viewed through the same hand lens. Which crystals most likely formed from molten material that cooled and solidified **most rapidly**?

d

C contains large amounts of iron
D has a regular arrangement of atoms

C halite
D pyroxene

The photograph below shows a broken piece of the mineral **calcite**.



The calcite breaks in **smooth, flat surfaces** because calcite

d

A is very dense
B is very soft
C contains certain impurities
D has a regular arrangement of atoms

A student incorrectly measured the volume of a mineral sample as 83 cubic centimeters when the **actual volume** was 89 cubic centimeters. What was the student's approximate **percent deviation** (percentage of error)?

a

A 6.7%
B 7.2%
C 9.3%
D 14.8%