

STATION 1

Which of these minerals show(s) conchoidal fracture?

A, B, C, D, E

Which two minerals have the same chemical formula?

A, B, C, D, E

Which of these minerals is/are silicate minerals ?

A, B, C, D, E

Can you name them? A - _____

B - _____ C - _____

D - _____ E - _____

STATION 2

Which mineral shows hexagonal crystal form?

A, B, C, D, E

Which two potassium minerals have the same chemical formula?

A, B, C, D, E

Which of these minerals is/are NOT silicate minerals ?

A, B, C, D, E

Can you name them? A - _____

B - _____ C - _____

D - _____ E - _____

STATION 3 - Identify Each Crystal System from the diagram
then match with an arrow to a mineral

A. _____

GYPSUM

B. _____

BARITE

C. _____

GALENA

D. _____

ORTHOCLASE

E. _____

QUARTZ

F. _____

CHALCOPYRITE

STATION 4

Which of these minerals is an ore of zinc ?

A, B, C, D, E

Which of these minerals is a chain silicate?

A, B, C, D, E

Which of these minerals contains lithium?

A, B, C, D, E

Name each mineral A - _____

B - _____ C - _____

D - _____ E - _____

STATION 1

A



B



C



D



E



“Cave of Swords” – Naica, Mexico

Stations December 26 B

STATION 2

A



B



C



D

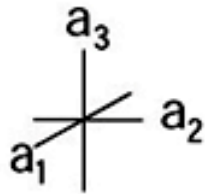
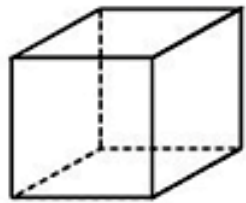


E



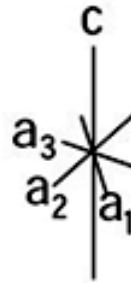
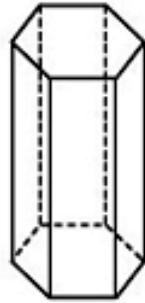
Stations December 26 B

Station 3



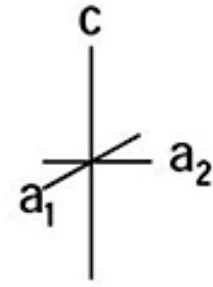
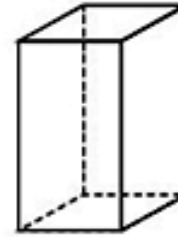
$a_1 = a_2 = a_3$
all angles 90°

A



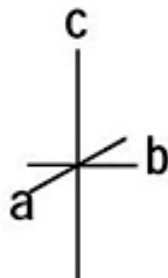
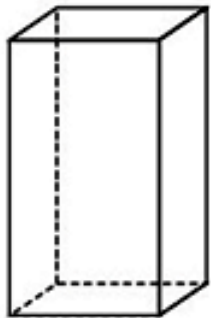
$a_1 = a_2 = a_3 \neq c$
angles a_{1-3} to $c = 90^\circ$
angles between a axes = 60°

B



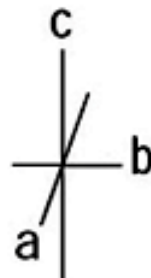
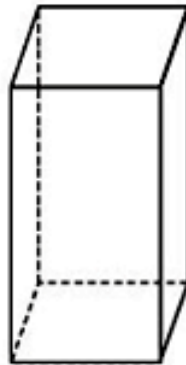
$a_1 = a_2 \neq c$
all angles 90°

C



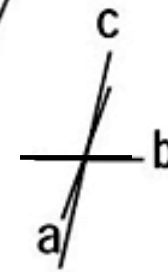
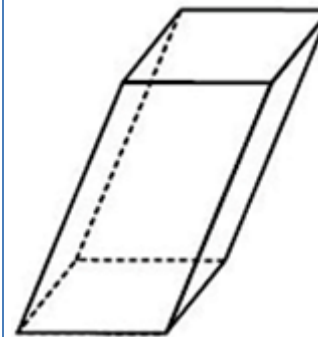
$a \neq b \neq c$
all angles 90°

D



$a \neq b \neq c$
angle between a & b
and b & $c = 90^\circ$;
angle between c & $a > 90^\circ$

E



$a \neq b \neq c$
all angles $\neq 90^\circ$

F

STATION 4

A



B



C



D



E



Answers

STATION 1

A is sodalite

D is selenite

B is apatite

E is satin spar

C is agate

Agate (C) has shows conchoidal fracture

Selenite and satin spar have same composition.

Sodalite and agate are silicate minerals.

STATION 2

A is orthoclase

D is chalcedony

B is malachite

E is milky quartz

C is amazonite

E is hexagonal

A and C are both potassium feldspar.

Malachite is not a silicate mineral.

STATION 2

Galena ----- isometric

Quartz ----- hexagonal

Chalcopyrite ----- tetragonal

Barite ----- Orthorhombic

Gypsum ----- Monoclinic

Orthoclase ----- Triclinic

STATION 4

A is lepidolite

D is citrine

B is sphalerite

E is albite

C is hornblende

Sphalerite (ZnS) contains zinc.

Hornblende is a chain silicate.

Lepidolite contains lithium.