

Name: Key

Date: _____

Mrs. Yip-Chen

Regents Review Questions – Unit 3: Rocks and Minerals

1 Which material is made mostly of the mineral quartz?

- (1) sulfuric acid (3) plaster of paris
(2) pencil lead (4) window glass

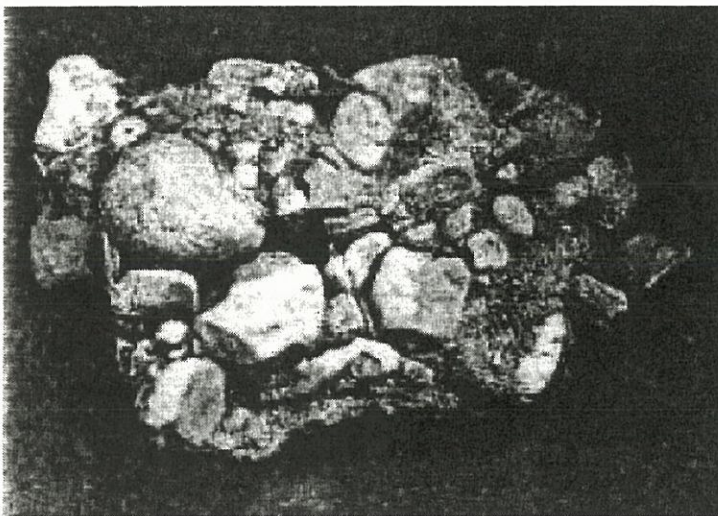
2 Which rock is only formed by regional metamorphism?

- (1) slate (3) dunit
(2) hornfels (4) marble

3 Which mineral can be found in all samples of rhyolite and andesite?

- (1) pyroxene (3) biotite
(2) quartz (4) potassium feldspar

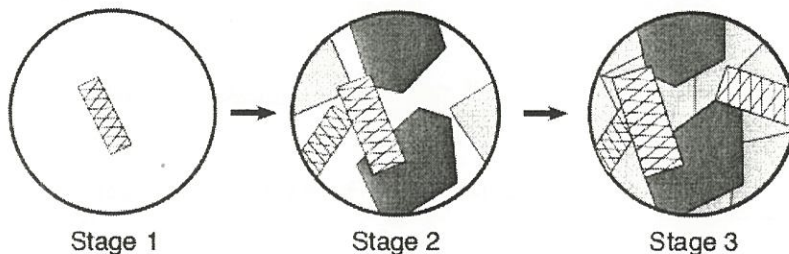
4 A student classified the rock below as sedimentary.



Which observation about the rock best supports this classification?

- (1) The rock is composed of several minerals.
(2) The rock has a vesicular texture.
(3) The rock contains fragments of other rocks.
(4) The rock shows distorted and stretched pebbles.

5 The diagram below shows magnified views of three stages of mineral crystal formation as molten material gradually cools.



Which rock normally forms when minerals crystallize in these stages?

- (1) shale (3) gabbro
(2) gneiss (4) breccia

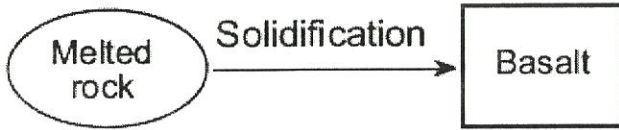
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6 The flowchart below illustrates the change from melted rock to basalt.

4



The solidification of the melted rock occurred

- (1) slowly, resulting in fine-grained minerals
- (2) slowly, resulting in coarse-grained minerals

(3) rapidly, resulting in coarse-grained minerals

(4) rapidly, resulting in fine-grained minerals

7 Which mineral is commonly used as a food additive?

3

(1) calcite

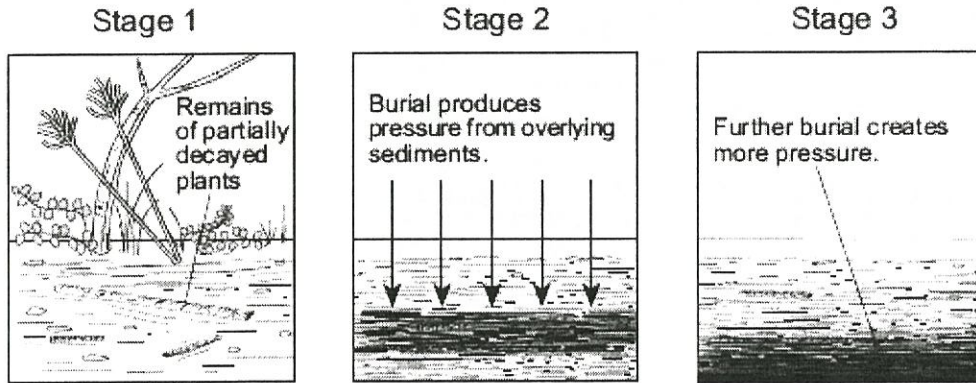
(3) halite

(2) talc

(4) fluorite

8 The diagram below shows three stages in the formation of a specific rock.

4



Which rock is formed as a result of these three stages?

(1) limestone

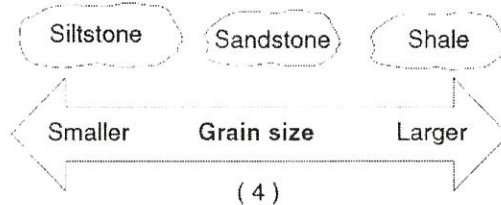
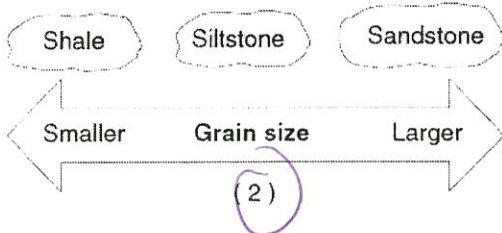
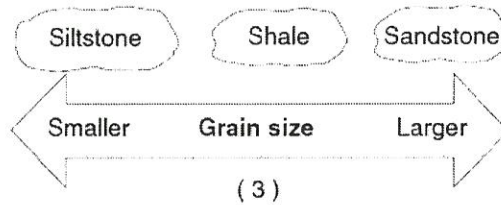
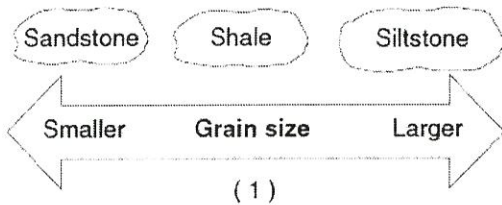
(3) schist

(2) gneiss

(4) coal

9 Which diagram best shows the grain size of some common sedimentary rocks?

2

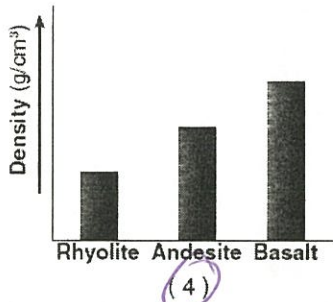
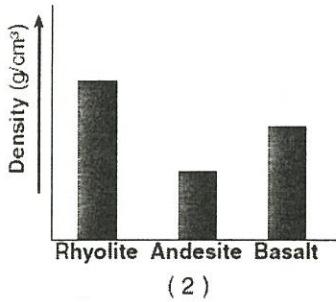
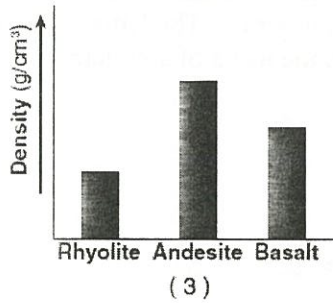
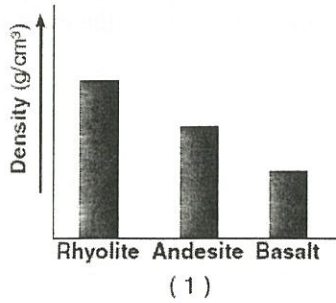


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10 Which graph best represents the relative densities of three different types of igneous rock?



11 Silicate minerals contain the elements silicon and oxygen. Which list contains only silicate minerals?

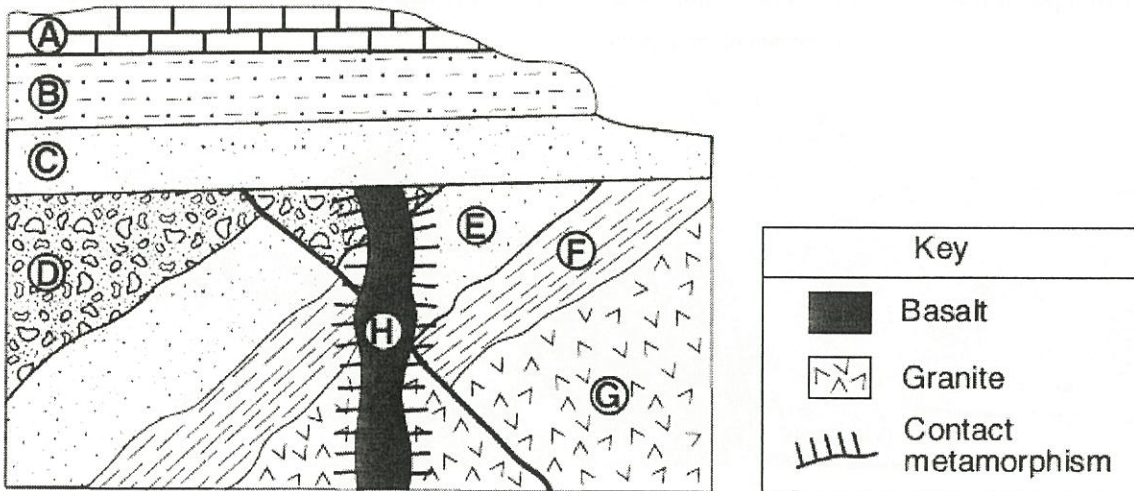
(1) graphite, talc, and selenite gypsum

(3) calcite, dolomite, and pyroxene

(2) potassium feldspar, quartz, and amphibole

(4) biotite mica, fluorite, and garnet

Base your answers to questions 12 through 14 on the cross section below. Letters A through H represent rock units in which overturning has not occurred.



12 Identify *one* metamorphic rock that could have formed at the boundary between rock unit E and rock unit H.

hornfels or quartzite

13 Identify *two* processes that formed rock unit D from sediment.

Deposition, cementation, compaction, burial

14 State the diameter of a particle normally found in rock unit B.

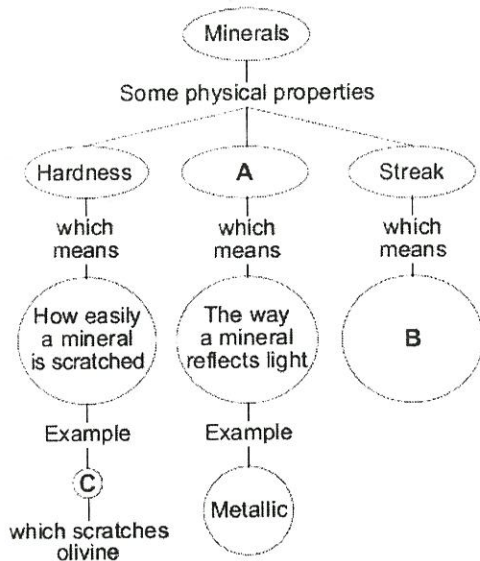
0.0004 - 0.006 cm

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Base your answers to questions 15 through 17 on the chart below, which shows some physical properties of minerals and the definitions of these properties. The letters *A*, *B*, and *C* indicate parts of the chart that have been left blank. Letter *C* represents the name of a mineral.



15 Which physical property of a mineral is represented by letter *A*?

Luster

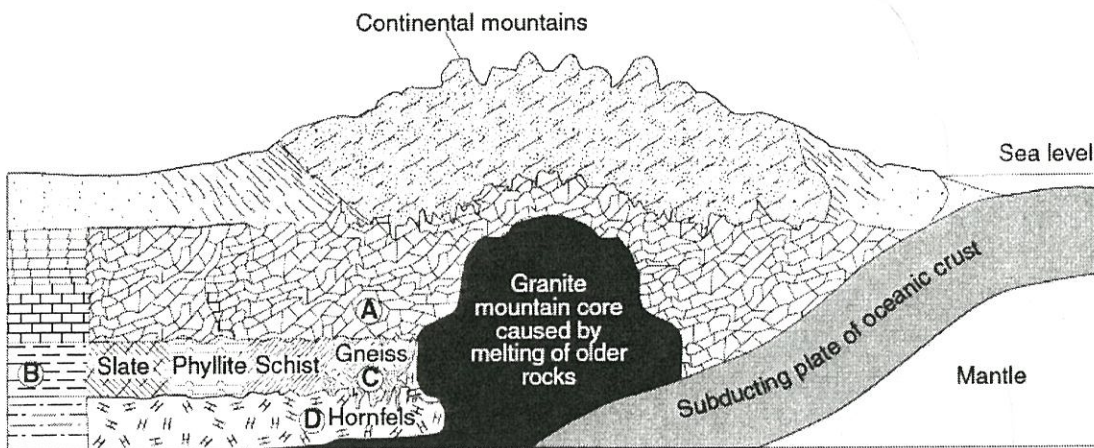
16 State the definition represented by letter *B*.

Color of a mineral's powder

17 Identify *one* mineral that could be represented by letter *C*.

Quartz, Garnet, Diamond

Base your answers to questions 18 through 21 on the cross section below, which shows the bedrock structure of a portion of the lithosphere. Letters *A* through *D* represent locations in the lithosphere.



(Not drawn to scale)

18 Identify *one* of the most abundant minerals in the metamorphic rock at location *A*.

Calcite or dolomite

19 Explain why the type of rock changes between locations *B* and *C*.

(Differential) Increasing metamorphism from B to C.

20 Identify the grain size of the metamorphic rock at location *D*.

Fine

21 Explain why the oceanic crust subducts beneath the continental crust when the two plates collide.

Oceanic crust is more dense than the continental crust.