Name _____ Date _____ Class _____

39. Rock with very small or no visible crystals or mineral grains has a _____ texture. In contrast, rock with large crystals or mineral grains has a _____ texture.

The Rock Cycle (p. 401)

40. Look at Figure 14 on page 401. The sediments that form sedimentary rock can come only from metamorphic rock.

True or False? (Circle one.)

41. Figure 14 shows that heat and pressure change igneous rock into _____ rock.

42. Rock at Earth's surface changes in the same ways as rock deep inside the Earth changes. True or False? (Circle one.)

43. Water and wind can cause both weathering and erosion. What is the major difference between these two processes?

_____

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44. The process by which soft sediment is squeezed until it hardens into rock is called _____.

45. Which of the following factors metamorphose rock deep below Earth's surface? (Circle all that apply.)

a. uplift
b. heat
c. cementation
d. pressure

Section Review (p. 402)

Now that you've finished Section 1, review what you learned by answering the Section Review questions in your ScienceLog.

Section 2: Igneous Rock (p. 403)

1. Which of the following factors affect the type of igneous rock that forms when magma cools? (Circle all that apply.)

a. the composition of the magma
b. the climate
c. the amount of time it takes the magma to cool
d. the weather

Name _____ Date _____ Class _____

Origins of Igneous Rock (p. 403)

2. Under which of the following conditions can magma form? (Circle all that apply.)

a. when rock is hefated
b. when pressure on rock is released
c. when rock's composition changes
d. when rock is weathered

3. How is the solidification of magma similar to water freezing?

_____

_____

Use Figure 16 on page 403 to answer the following questions.

4. All minerals have the same melting point. True or False? (Circle one.)

5. High pressure keeps minerals from melting deep within the Earth. True or False? (Circle one.)

6. How can the addition of fluids to a rock cause it to melt and form magma?

_____

_____

Composition and Texture of Igneous Rock (p. 404)

7. Dark-colored rocks are usually _____ than light-colored rocks.

8. Look at Figure 17 on page 404. Granite is probably _____ than gabbro.

9. _____ igneous rocks are rich in elements such as silicon, aluminum, sodium, and potassium.

10. _____ igneous rocks are rich in iron, magnesium, and calcium.

11. Look at Figure 18 on page 404. How does the cooling time of the magma affect the texture of the igneous rock that forms?

_____

_____

_____

_____

_____

Name _____ Date _____ Class _____

Igneous Rock Formations (p. 405)

12. Extrusive rock cools slowly. True or False? (Circle one.)

13. Which of the following is NOT a place where magma reaches Earth's surface? (Circle all that apply.)

a. a volcano
b. a mid-ocean ridge
c. a batholith
d. a fissure in Earth's surface

14. Intrusive rock usually has a coarse-grained texture. Why?

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Section Review (p. 406)

Now that you've finished Section 2, review what you learned by answering the Section Review questions in your ScienceLog.

Section 3: Sedimentary Rock (p. 407)

1. All of the following are causes of weathering EXCEPT

a. sunlight.
b. water.
c. wind.
d. cementation.

Origins of Sedimentary Rock (p. 407)

2. How are sediments bound together?

_____

_____

_____

_____

3. Sedimentary rock forms near the Earth's core. True or False? (Circle one.)

4. Which of the following are good places to observe layers of sedimentary rock, or strata? (Circle all that apply.)

a. road cuts
b. construction zones
c. canyons carved by rivers
d. flat plains

Name _____ Date _____ Class _____

39. Rock with very small or no visible crystals or mineral grains has a fine-grained texture. In contrast, rock with large crystals or mineral grains has a coarse-grained texture.

The Rock Cycle (p. 401)

40. Look at Figure 14 on page 401. The sediments that form sedimentary rock can come only from metamorphic rock.

True or (False)? (Circle one.)

41. Figure 14 shows that heat and pressure change igneous rock into metamorphic rock.

42. Rock at Earth's surface changes in the same ways as rock deep inside the Earth changes. True or (False)? (Circle one.)

43. Water and wind can cause both weathering and erosion. What is the major difference between these two processes?

Weathering is the process by which water, ice, and wind break down rocks. Erosion is the process by which wind, water, and gravity move broken pieces of rock material from one place to another.

44. The process by which soft sediment is squeezed until it hardens into rock is called compaction.

45. Which of the following factors metamorphose rock deep below Earth's surface? (Circle all that apply.)

(**a.**) uplift
b. heat
(**c.**) cementation
d. pressure

Section Review (p. 402)

Now that you've finished Section 1, review what you learned by answering the Section Review questions in your ScienceLog.

Section 2: Igneous Rock (p. 403)

1. Which of the following factors affect the type of igneous rock that forms when magma cools? (Circle all that apply.)

(**a.**) the composition of the magma
b. the climate
(**c.**) the amount of time it takes the magma to cool
d. the weather

Name _____ Date _____ Class _____

Origins of Igneous Rock (p. 403)

2. Under which of the following conditions can magma form? (Circle all that apply.)

a. when rock is hefated **c.** when rock's composition changes
b. when pressure on rock is released **d.** when rock is weathered

3. How is the solidification of magma similar to water freezing?

When magma cools down enough, it solidifies, or "freezes," like water.

Use Figure 16 on page 403 to answer the following questions.

4. All minerals have the same melting point. True or False? (Circle one.)

5. High pressure keeps minerals from melting deep within the Earth. True or False? (Circle one.)

6. How can the addition of fluids to a rock cause it to melt and form magma?

Fluids change the composition of rock, which can lower the rock's melting point.

Composition and Texture of Igneous Rock (p. 404)

7. Dark-colored rocks are usually more dense than light-colored rocks.

8. Look at Figure 17 on page 404. Granite is probably less dense than gabbro.

9. Felsic igneous rocks are rich in elements such as silicon, aluminum, sodium, and potassium.

10. Mafic igneous rocks are rich in iron, magnesium, and calcium.

11. Look at Figure 18 on page 404. How does the cooling time of the magma affect the texture of the igneous rock that forms?

The longer the magma or lava takes to cool, the more time crystals have to grow. The more time crystals have to grow, the coarser the texture of the igneous rock will be.

Name _____ Date _____ Class _____

Igneous Rock Formations (p. 405)

12. Extrusive rock cools slowly. True or (False)? (Circle one.)

13. Which of the following is NOT a place where magma reaches Earth's surface? (Circle all that apply.)

a. a volcano
b. a mid-ocean ridge
(c.) a batholith
d. a fissure in Earth's surface

14. Intrusive rock usually has a coarse-grained texture. Why?

Intrusive rock usually has a coarse-grained texture because the magma that forms the rock is well insulated by surrounding rock and therefore cools slowly.

Section Review (p. 406)

Now that you've finished Section 2, review what you learned by answering the Section Review questions in your ScienceLog.

Section 3: Sedimentary Rock (p. 407)

1. All of the following are causes of weathering EXCEPT

a. sunlight.
b. water.
c. wind.
(d.) cementation.

Origins of Sedimentary Rock (p. 407)

2. How are sediments bound together?

Dissolved minerals separate out of water to form a natural glue that binds the sediments together.

3. Sedimentary rock forms near the Earth's core. True or (False)? (Circle one.)

4. Which of the following are good places to observe layers of sedimentary rock, or strata? (Circle all that apply.)

(a.) road cuts
(b.) construction zones
(c.) canyons carved by rivers
d. flat plains