

Module1

Lesson 5 (The Cycling of Earth's Materials) QP

Inspire Science Grade 7 Term3

1

.....are naturally occurring, inorganic solids that have crystal structures and definite chemical compositions.

2

As molten rock cools and crystallizes, it becomes rock

3

Rocks and minerals form as a result of natural processes that occur on and below Earth's surface.

- True
- False

4

The process of occurs when particles dissolved in a liquid or a melt solidify and form crystals.

5

A is a natural, solid mixture of minerals, smaller rock fragments, organic matter, or glass.

6

When lava cools and crystallized on Earth's surface, the igneous rock that forms is called rock.

7

molten rock that erupts onto Earth's surface is called

8

Igneous rock that forms as magma cools underground is called rock

9

Sometimes lava cools too quickly to form crystals. When this occurs, the resulting extrusive rock is called volcanic glass.

- True
- False

10

Molten rock is called when it is inside Earth.

11

Igneous rocks form from ____ when it cools.

- a.magma
- b.lava
- neither a nor b
- both a and b

12

What are the two types of igneous rocks?

- Extrusive
- sedimentary
- Intrusive
- metamorphic

13

Water and air can change the physical or chemical properties of rock.

- True
- False

14

The crystals that form in slowly cooled magma produce ____ mineral grains.

- tiny
- invisible
- fine-grained
- large

15

Locations where sediment is deposited are called depositional environments.

- True
- False

16

Sediment deposited in water often forms layers called

17

Silt and clay are NOT deposited in low-energy environments such as swamps.

- True
- False

18

..... is rock material that forms where rocks are broken down into smaller pieces or dissolved in water as rocks erode.

19

.....is the process by which minerals dissolved in surrounding water crystallize between grains of sediment.

20

.....sedimentary rocks often have interlocking crystalline textures, similar to the textures of many igneous rocks.

21

..... rock is a sedimentary rock that was formed by organisms or contains the remains of organisms.

22

The weight from the layers of sediment forces out fluids and decreases the space between grains during a process called

23

..... is the process through which sediment turns into rock.

24

.....Sedimentary Rocks are sedimentary rocks that are made up of broken pieces of minerals and rock fragments.

25

Sedimentary rocks are changed to sediments by ____.

- compaction
- weathering and erosion
- cementation
- heat and pressure

26

Rocks can change throughout many different processes through the rock cycle. All of the following change rocks on Earth's surface except ____.

- melting
- weathering
- deposition
- compaction

27

Foliated rocks are distinguished by ____.

- layers
- lack of layers
- large mineral grains
- air holes

28

The rock cycle can change the sedimentary rock limestone into ____ through metamorphosis.

- conglomerate
- gneiss
- granite
- marble

29

A student uses a candle to model the process of an existing rock becoming an igneous rock. Which procedure best demonstrates the formation of an igneous rock?

- Melt the candle in a dish on a hotplate and keep it in liquid form.
- Break the candle into small pieces and crush the small pieces until they stick together.

- Place books on top of the candle to apply pressure, and then heat it so its composition changes.
- Hold the lit candle over a small dish, and then let the melted candle wax that drops into the dish cool and harden.



30

What causes the difference in grain size between intrusive igneous rocks and extrusive igneous rocks?

- intrusive igneous rocks cool slowly, so they have time to form large crystals, unlike extrusive igneous rocks that cool quickly, which tend to form small crystals.
- intrusive igneous rocks cool quickly, so they have time to form large crystals, unlike extrusive igneous rocks that cool slowly, which tend to form small crystals.
- intrusive igneous rocks cool slowly, so they have time to form small crystals, unlike extrusive igneous rocks that cool quickly, which tend to form large crystals.

31

Study the table, which of the following is correct?

1	2
	
Molten rocks cool slowly	Molten rocks cool so quickly

- 1 is called intrusive rock, their mineral crystals are very small in size.
- 2 is called extrusive rock, their mineral crystals are very small in size.
- 1 is called extrusive rock, their mineral crystals are large in size.
- Both 1 and 2 cools on the Earth's crust, where its lower temperature than its core.

32

The following figure shows a type of sedimentary rocks that is formed when minerals crystallize from water during dry conditions, under which of the following types it belongs to?

- Clastic
- Chemical
- Gneiss
- Biochemical



33

The series of processes that change one type of rock into another type of rock is called

34

The process of is a tectonic process that brings rocks from deep in the crust to earth's surface.

35

Sedimentary rocks are _____.

- formed from magma.
- a type of foliated igneous rock.
- formed because of changes in temperature and pressure, or the presence of hot watery fluids.
- formed when loose materials become pressed or cemented together or when minerals form from solutions.

36

Which rocks are formed from sediments?

- sedimentary rocks
- metamorphic rocks
- extrusive igneous rocks
- intrusive igneous rocks

37

The form mineral cement that glues the compressed rock layers together.

- living organisms
- chemicals released by organisms

- minerals dissolved in fluids
- sediments from weathered rocks

38

What is the first step in the formation of sedimentary rocks?

- erosion
- deposition
- compaction
- cementation

39

How are sedimentary rocks formed?

- sedimentary rocks are formed as a result of chemical reactions between minerals.
- sedimentary rocks are the result of the crystallization of molten rocks.
- sedimentary rocks are the result of weathering and breaking the mountain into smaller pieces.
- sedimentary rocks are the result of the accumulation of sediment deposits as layers.

40

Which is not step in the formation of sedimentary rocks? (select two answers)

- condensation
- cementation
- cooling of magma
- compaction
- deposition

41

..... is the process that creates rock from sediments.

42

Which sediment size is deposited first when wind, water, or glaciers slow down?

- the size of the sediment doesn't affect its deposition.
- the heaviest sediments is deposited first.
- sediments with all sizes deposit at the same time.
- the lightest sediment is deposited first.

43

Dolostone is formed when the water that contains calcium carbonate evaporates, and the solids form mineral crystals.

What type of rock is Dolostone?

- biochemical sedimentary rocks
- igneous rock
- clastic sedimentary rock
- chemical sedimentary rock

44

Where do you think the sedimentary rocks are formed?

- in volcanic areas
- on or near the Earth's surface
- on oceanic crust only
- deep inside the Earth

45

..... is broken rock material, minerals, and organic matter.

Module1

Lesson 5 (The Cycling of Earth's Materials) AK

1

Minerals are naturally occurring, inorganic solids that have crystal structures and definite chemical compositions.

2

As molten rock cools and crystallizes, it becomes **igneous** rock

3

Rocks and minerals form as a result of natural processes that occur on and below Earth's surface.

- **True**
- False

4

The process of **crystallization** occurs when particles dissolved in a liquid or a melt solidify and form crystals.

5

A **rock** is a natural, solid mixture of minerals, smaller rock fragments, organic matter, or glass.

6

When lava cools and crystallized on Earth's surface, the igneous rock that forms is called **extrusive** rock.

7

molten rock that erupts onto Earth's surface is called **Lava**

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Igneous rock that forms as magma cools underground is called **intrusive** rock

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Sometimes lava cools too quickly to form crystals. When this occurs, the resulting extrusive rock is called volcanic glass.

- **True**
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Water and air can change the physical or chemical properties of rock.

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The crystals that form in slowly cooled magma produce _____ mineral grains.

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- invisible
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15

Locations where sediment is deposited are called depositional environments.

- **True**
- False

16

Sediment deposited in water often forms layers called **beds**

17

Silt and clay are NOT deposited in low-energy environments such as swamps.

- True
- **False**

18

Sediment is rock material that forms where rocks are broken down into smaller pieces or dissolved in water as rocks erode.

19

Cementation is the process by which minerals dissolved in surrounding water crystallize between grains of sediment.

20

Chemical sedimentary rocks often have interlocking crystalline textures, similar to the textures of many igneous rocks.

21

Biochemical rock is a sedimentary rock that was formed by organisms or contains the remains of organisms.

22

The weight from the layers of sediment forces out fluids and decreases the space between grains during a process called **compaction**

23

Lithification is the process through which sediment turns into rock.

24

Clastic Sedimentary Rocks are sedimentary rocks that are made up of broken pieces of minerals and rock fragments.

25

Sedimentary rocks are changed to sediments by ____.

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- **weathering and erosion**
- cementation
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The series of processes that change one type of rock into another type of rock is called **rock cycle**

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The process of **Uplift** is a tectonic process that brings rocks from deep in the crust to earth's surface.

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- **condensation**
- cementation
- **cooling of magma**
- compaction
- deposition

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