

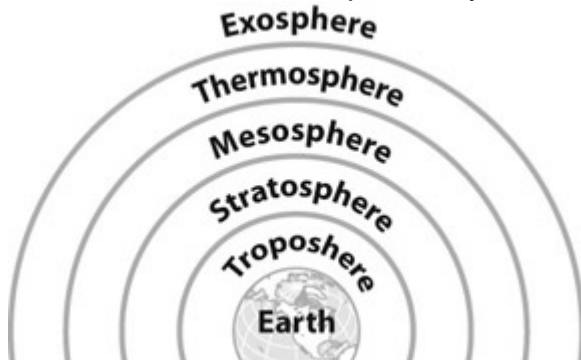
Name _____
Date _____
Period _____

**The Changing Earth – Unit 1 Lesson 7
Test 1**

The Changing Earth

Matching

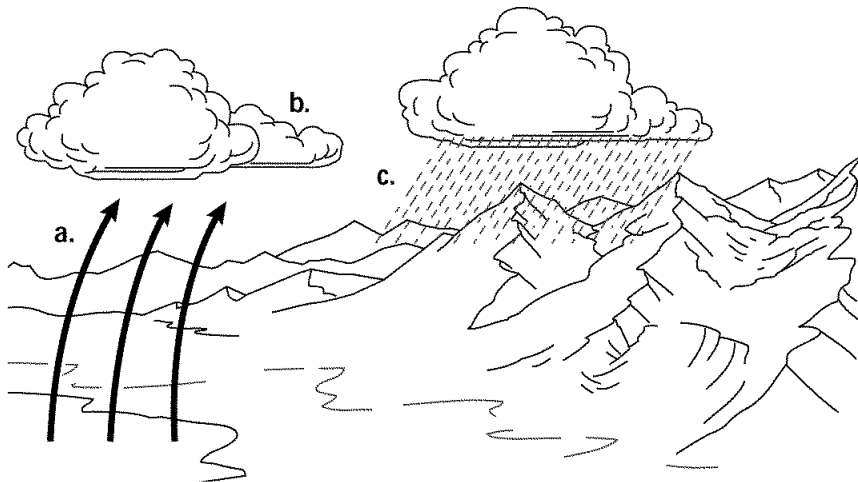
Match the correct atmospheric layer with its description.



- a. Troposphere
- b. Stratosphere
- c. Mesosphere
- d. Thermosphere
- e. Exosphere

- _____ 1. also contains the ionosphere and where auroras occur
- _____ 2. contains the ozone layer
- _____ 3. considered a transitional region where the atmosphere merges into outer space
- _____ 4. where weather occurs
- _____ 5. coldest layer

Match the name of the process shown in each part of the water cycle diagram on the next page.

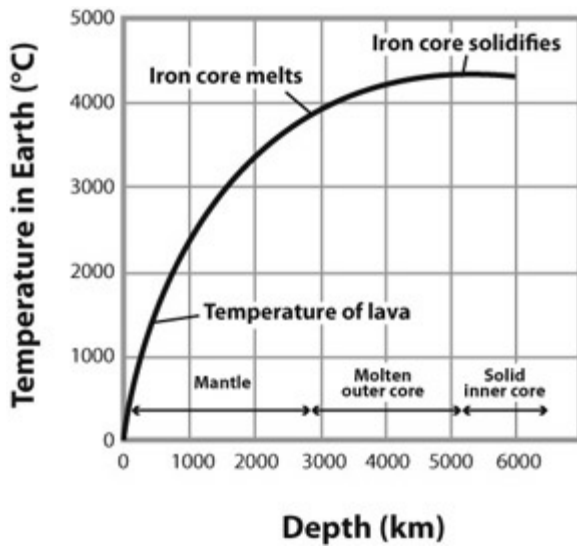


- a. evaporation
- b. condensation, cloud formation
- c. precipitation

- ___ 6. Step 1
- ___ 7. Step 2
- ___ 8. Step 3

Multiple Choice

Identify the choice that best completes the statement or answers the question.



Use the graph to answer the questions.

- ___ 9. According to the graph, what is the temperature of lava?
 - a. 1000°C
 - b. 250°C
 - c. 1250°C
 - d. 500°C

- _____ 10. According to the graph, what is the range in depth when iron core melts and solidifies?
- a. 3900km-4300km
 - b. 3000km-5000km
 - c. 4000km-4500km
 - d. 2900km-5100km

Depth into Earth From Original Depth	Temperature Increase From Original Temperature
100m	3°C
200m	6°C
300m	9°C

Use the table to answer the questions.

- _____ 11. After 450m the temperature will have increased by how much?
- a. 12.5°C
 - b. 135°C
 - c. 13.5°C
 - d. 10.5°C
- _____ 12. Which statement best summarizes the table?
- a. For every 100m increased in depth, the temperature triples.
 - b. For every 100m increased in depth, the temperature increases 3°C.
 - c. For every 3°C increase, the depth is doubled.
 - d. For every 3°C increase, the depth is tripled.
- _____ 13. Rocks are formed when magma _____.
- a. erodes
 - b. undergoes radioactive decay
 - c. cools and crystallizes
 - d. weathers
- _____ 14. Factors that affect a rock's melting point include _____.
- a. pressure and water content
 - b. value as a gem
 - c. rarity
 - d. usefulness as a building material
- _____ 15. Which is NOT an agent of chemical weathering?
- a. water
 - b. temperature
 - c. oxygen
 - d. carbon dioxide
- _____ 16. Which of the following has the potential for the most erosion?
- a. water flowing across a flatland
 - b. wind blowing materials in the air, against the force of gravity
 - c. wind blowing materials down a slope
 - d. water flowing down a steep slope
- _____ 17. Which of the following characteristics of water can be responsible for mechanical weathering?
- a. Water flows downstream under gravity.
 - b. Water expands when it freezes.
 - c. Water combines with atmospheric gases to form acid rain.
 - d. Water reacts with and can dissolve many kinds of minerals.

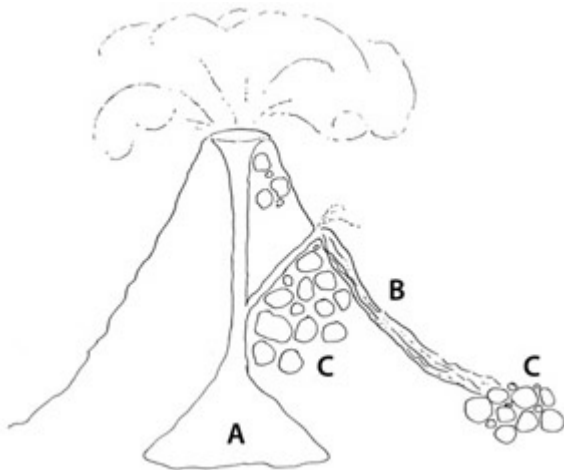
- ___ 18. The existence of coal beds in Antarctica indicates that the continent once had ____.
- | | |
|-------------------------------|----------------------------------|
| a. been part of Africa | c. a cold, dry climate |
| b. a temperate, rainy climate | d. been farther from the equator |
- ___ 19. Continental-continental plate collisions produce ____.
- | | |
|-----------------|------------------------------|
| a. island arcs | c. deep-sea trenches |
| b. rift valleys | d. very tall mountain ranges |
- ___ 20. Crust is neither destroyed nor formed along which of the following boundaries?
- | | |
|---------------|--------------|
| a. convergent | c. transform |
| b. divergent | d. magnetic |
- ___ 21. The driving forces of tectonic plates are related to convection currents in Earth's ____.
- | | |
|-----------|---------------|
| a. crust | c. inner core |
| b. mantle | d. outer core |
- ___ 22. Which of the following is a component of the atmosphere which changes very little?
- | | |
|----------------|-------------------|
| a. water vapor | c. carbon dioxide |
| b. nitrogen | d. ozone |



Use the picture to answer the questions.

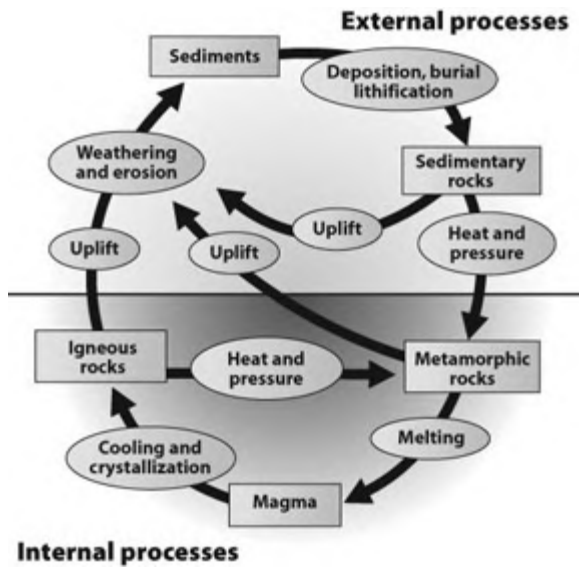
- ___ 23. What process is being modeled in the picture?
- | | |
|---------------|--------------|
| a. conduction | c. radiation |
| b. convection | d. emission |
- ___ 24. How does this process appear in the atmosphere?
- | | |
|--|--|
| a. The transferring of thermal energy from Earth to the Sun. | c. The transferring of thermal energy from the Sun to Earth. |
| b. The blocking of light energy by Earth. | d. The absorption of thermal energy by the ozone layer. |
- ___ 25. Earth's atmosphere contains more ____ than any other substance.
- | | |
|--------------------------|------------------------|
| a. hydrogen and nitrogen | c. nitrogen and oxygen |
| b. helium and oxygen | d. carbon and nitrogen |
- ___ 26. What is the constant movement of water between the atmosphere and Earth's surface?
- | | |
|------------------------|---------------------|
| a. precipitation cycle | c. cloud cycle |
| b. water cycle | d. atmosphere cycle |

Short Answer



Use the diagram to answer the questions.

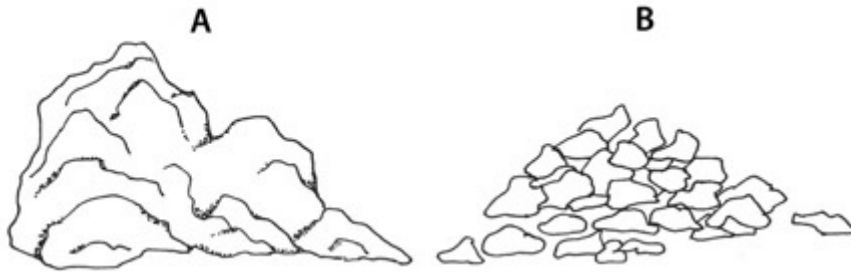
27. What is the difference between the substance identified as A and the substance identified as B?
28. What might happen to the rock cycle if the forces that cause weathering were absent on Earth?



Use the rock cycle diagram to answer question 29 .

29. Why is the diagram of the rock cycle not just a simple circle?

30. Which rock group is susceptible to a faster rate of weathering? Explain.



The Changing Earth Answer Section

MATCHING

- | | | | |
|----|---|-----------------------|---|
| 1. | ANS: D
NAT: D.3 | PTS: 1
STA: ABC.17 | DIF: Bloom's Level 4 |
| 2. | ANS: B
NAT: D.3 | PTS: 1
STA: ABC.17 | DIF: Bloom's Level 4 |
| 3. | ANS: E
NAT: D.3 | PTS: 1
STA: ABC.17 | DIF: Bloom's Level 4 |
| 4. | ANS: A
NAT: D.3 | PTS: 1
STA: ABC.17 | DIF: Bloom's Level 4 |
| 5. | ANS: C
NAT: D.3 | PTS: 1
STA: ABC.17 | DIF: Bloom's Level 4 |
| 6. | ANS: A
NAT: UCP2 A1 B2 B5 D1 | PTS: 1 | DIF: Bloom's Level 2
STA: 12.1 12.3 13.1 |
| 7. | ANS: B
NAT: UCP2 A1 B2 B5 D1 | PTS: 1 | DIF: Bloom's Level 2
STA: 12.1 12.3 13.1 |
| 8. | ANS: C
NAT: UCP2 A1 B2 B5 D1 | PTS: 1 | DIF: Bloom's Level 2
STA: 12.1 12.3 13.1 |

MULTIPLE CHOICE

- | | | | |
|-----|---|----------------------|---|
| 9. | ANS: C
NAT: B.2 | PTS: 1
STA: ES.1 | DIF: Bloom's Level 4 |
| 10. | ANS: D
NAT: UCP.3 | PTS: 1
STA: ES.1 | DIF: Bloom's Level 4 |
| 11. | ANS: C
NAT: UCP.3 | PTS: 1
STA: ES.1 | DIF: Bloom's Level 4 |
| 12. | ANS: B
NAT: UCP.3 | PTS: 1
STA: ES.1 | DIF: Bloom's Level 3 |
| 13. | ANS: C
NAT: UCP1 B2 D1 | PTS: 1 | DIF: Bloom's Level 2
STA: 11.1 11.4 |
| 14. | ANS: A
NAT: UCP3 D1 | PTS: 1
STA: 11.1 | DIF: Bloom's Level 2 |
| 15. | ANS: B
NAT: F.4 | PTS: 1
STA: ES.16 | DIF: Bloom's Level 2 |
| 16. | ANS: D
NAT: UCP2 B3 B4 D1 D2 | PTS: 1 | DIF: Bloom's Level 2
STA: 16.5 |
| 17. | ANS: B
NAT: UCP3 D1 D2 | PTS: 1 | DIF: Bloom's Level 3
STA: 16.1 16.2 16.3 |
| 18. | ANS: B | PTS: 1 | DIF: Bloom's Level 2 |

- NAT: UCP4 | D3 STA: 19.3
19. ANS: D PTS: 1 DIF: Bloom's Level 2
NAT: UCP3 | D1 | D3
20. ANS: C PTS: 1 DIF: Bloom's Level 2
NAT: UCP1 | D3 STA: 19.1 | 19.3
21. ANS: B PTS: 1 DIF: Bloom's Level 2
NAT: UCP2 | A1 | B5 STA: 19.2
22. ANS: B PTS: 1 DIF: Bloom's Level 1
NAT: D.3 STA: ABC.17.4
23. ANS: C PTS: 1 DIF: Bloom's level 2
NAT: B.1 STA: ES.1
24. ANS: C PTS: 1 DIF: Bloom's Level 2
NAT: B.1 STA: ES.1
25. ANS: C PTS: 1 DIF: Bloom's Level 1
NAT: UCP1 | A1 | B4 STA: 13.1
26. ANS: B PTS: 1 DIF: Bloom's Level 1
NAT: UCP2 | A1 | B2 | B5 | D1 STA: 12.1 | 12.3 | 13.1

SHORT ANSWER

27. ANS:
The substance identified as A is magma which is molten rock beneath Earth's surface while the substance identified as B is lava which is magma that flows out onto Earth's surface. As the magma rises to Earth's surface, some of its gases escape into the atmosphere creating a different chemical composition and changing it to lava.
- PTS: 1 DIF: Bloom's Level 4 NAT: B.2
STA: ES.9
28. ANS:
If weathering did not occur, sedimentary rock would not form. Its absence would likely affect the formation of igneous and metamorphic rock as well.
- PTS: 1 DIF: Bloom's Level 5 NAT: UCP2 | A2 | D1
29. ANS:
The diagram is not just a simple circle because there are many different ways that one type of rock can be transformed into another type of rock; all possibilities must be shown.
- PTS: 1 DIF: Bloom's Level 6 NAT: D.2
STA: ES.11.1
30. ANS:
Rock group B is more susceptible to a faster rate of weathering because there is more surface area in the broken down rocks than in the solid rock thus having more exposed rock which can be weathered.
- PTS: 1 DIF: Bloom's Level 6 NAT: F.4

STA: ES.16