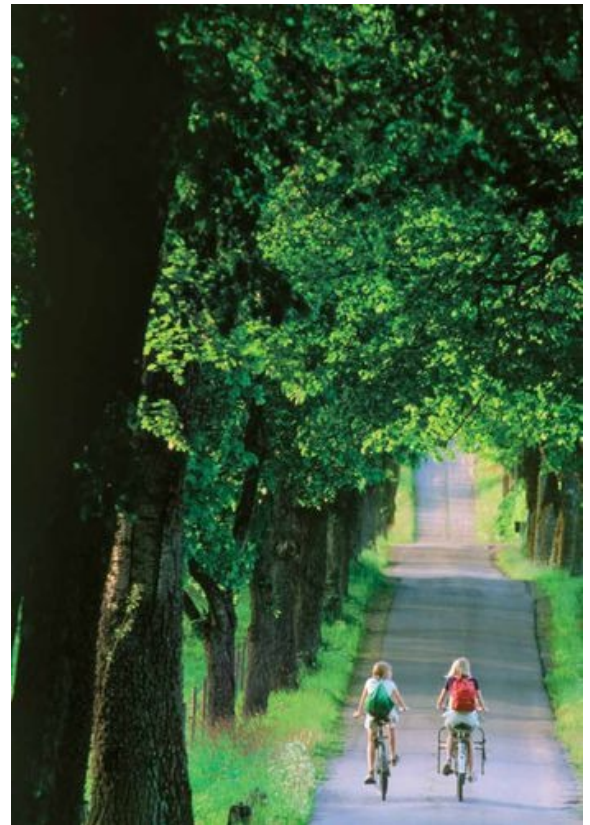


Physical Weathering at Work

This text is excerpted from an original work of the Core Knowledge Foundation.

The process of weathering breaks rock into smaller pieces. Some of these tiny pieces combine with once-living material to form topsoil. Other small pieces of rock collect as sediments. This breakdown of rocks happens as they interact with air, water, and living things. There are two basic types of weathering. One of them is physical weathering.

Physical weathering breaks big rocks into smaller ones without changing the minerals they contain. Widely swinging temperatures cause physical weathering. For example, rocks in a desert bake during the day beneath the sun's scorching heat. As rocks get hot, they expand. At night, temperatures in the desert fall. As rocks cool down, they contract, or shrink slightly. Expand, contract, expand, contract—this endless cycle gradually causes the rocks' outer layer to crumble or flake off.



Water also causes physical weathering. Water seeps into tiny cracks in rocks. If temperatures drop below freezing, the water turns to ice. Water expands as it freezes, pushing outward and enlarging the cracks. Geologists call this process ice wedging. Each time the water freezes, it opens cracks a little wider. Eventually, the rocks split apart. Ice wedging is what makes potholes in streets, too.

Plants and animals also cause rocks to weather. Tree roots squeeze into the cracks in rocks. As the roots grow, they act like wedges, forcing the cracks wider and wider. Eventually the rocks break apart. Badgers, chipmunks, and other animals burrow into cliffs and hillsides like tiny bulldozers. As they dig or tunnel into the ground, they push buried rocks to the surface where most weathering takes place.



Examples of physical weathering

Name: _____ Date: _____

1. What is a meaning of the word **process**?

- A. a particular course of action intended to achieve a result
- B. a learner who is enrolled in an educational institution
- C. one of the four large bodies of saltwater on Earth

2. What is another meaning of the word **process**?

- A. a sustained phenomenon or one marked by gradual changes through a series of states
- B. a point located with respect to surface features of some region
- C. a politically organized body of people under a single government

Please use each answer choice only once. Choose the one word that best completes the sentence.

3. A life _____ is a function that a living thing performs to stay alive and produce more of its own kind.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

4. All living things are made of cells and are able to carry out life _____.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

5. Now you can use your drawing or word _____ program to start a Leaf Collection Record Book.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

6. Upon receiving a returned book or order, your refund will be _____, but you will not be reimbursed for shipping charges.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

7. A long _____ of people, all dressed in black, followed the men.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

8. They have a _____ and memory, input, and output devices.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

9. These assumptions originate from the fundamental belief that humans are _____ of information.

- A. processor
- B. processors
- C. process
- D. processing
- E. procession
- F. processes
- G. processed

10. Please write your own sentence using the word **process**.

11. What would you like to remember about the meaning of the word **process** so that you can use it when you write or speak?

Name: _____ **Date:** _____

1. What is a meaning of the word **expand**?

- A. keep in good condition
- B. come out into view
- C. add details to an idea

2. What is another meaning of the word **expand**?

- A. grow vigorously
- B. catch sight of
- C. set up or found

Please use each answer choice only once. Choose the one word that best completes the sentence.

3. Sometimes _____ and contraction are quite noticeable.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

4. Liquids _____, or get bigger, when they are heated.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

5. The cluster _____ as they watched.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

6. That warm air _____ and rises.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

7. He had never seen those great shining white _____ of ice and snow.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

8. It had a nice, _____ ring to it.

- A. expansive
- B. expanses
- C. expands
- D. expansion
- E. expanded
- F. expand

9. Please write your own sentence using the word **expand**.

10. What would you like to remember about the meaning of the word **expand** so that you can use it when you write or speak?