Section 5.1 Weathering

This section describes different types of weathering in rocks.

Reading Strategy

Building Vocabulary  As you read the section, define each vocabulary term. For more information on this Reading Strategy, see the Reading and Study Skills in the Skills and Reference Handbook at the end of your textbook.

<table>
<thead>
<tr>
<th>Vocabulary Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Mechanical weathering</td>
<td>a.</td>
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<tr>
<td>Frost wedging</td>
<td>b.</td>
</tr>
<tr>
<td>Talus</td>
<td>c.</td>
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<td>Exfoliation</td>
<td>d.</td>
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<tr>
<td>Chemical weathering</td>
<td>e.</td>
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Mechanical Weathering

1. List and describe three types of mechanical weathering.

   1. 
   2. 
   3. 

2. ☐ Is the following sentence true or false? In nature, three physical processes are especially important causes of mechanical weathering: chemical reactions, spheroidal weathering, and the presence of water. __________________

3. Circle the letter of each sentence that is true about mechanical weathering.
   a. Each piece of broken rock has the same characteristics as the original rock.
   b. In nature, three physical processes are especially important causes of mechanical weathering: frost wedging, unloading, and biological activity.
   c. When a rock is broken apart, less surface area is exposed to chemical weathering.
   d. Mechanical weathering is the transformation of rock into new compounds.
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Chemical Weathering

4. Circle the letter of each sentence that is true about chemical weathering.
   a. Water is the most important agent in chemical weathering.
   b. Chemical weathering converts granite to clay minerals and quartz grains.
   c. Chemical weathering can change the shape of a rock and its chemical composition.
   d. Spheroidal weathering is a form of chemical weathering.

5. Describe the weathering process that the rocks in the photograph are undergoing.
   ____________________________________________________________
   ____________________________________________________________

6. The weathering process shown in the photograph is called ________________.

   ![Photograph of rocks undergoing weathering]

Rate of Weathering

7. Is the following sentence true or false? Factors that affect rate of weathering are surface area, rock characteristics, and climate.
   ________________

8. Two characteristics that affect rate of weathering are ________________ and ________________.

9. What are three ways that the climatic factors of temperature and moisture affect rate of weathering?
   a. ________________
   b. ________________
   c. ________________

10. What are two factors that cause differential weathering?
    ____________________________________________________________
        ________________________________________________________