### Chapter 8  Earthquakes and Earth’s Interior

#### Section 8.3 Destruction from Earthquakes

*This section discusses damage caused by earthquakes and explains how earthquakes are predicted.*

#### Reading Strategy

**Monitoring Your Understanding**  Preview the Key Concepts, topic headings, vocabulary, and figures in this section. List two things you expect to learn. After reading, state what you learned about each item you listed. 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>What I Expect to Learn</th>
<th>What I Learned</th>
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<tbody>
<tr>
<td>a.</td>
<td>b.</td>
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<td>c.</td>
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#### Seismic Vibrations

1. Θ List three factors that affect the degree of damage that occurs to structures as a result of earthquakes.

2. Circle the letter of the structure that is least likely to be damaged in a major earthquake.
   - a. steel-frame building
   - b. nonflexible wood-frame building
   - c. unreinforced stone building
   - d. unreinforced brick building

3. What risk does liquefaction pose during an earthquake?
Tsunamis

4. Complete the table about tsunamis.

<table>
<thead>
<tr>
<th>Tsunamis Definition</th>
<th>Causes</th>
<th>Areas Protected from Tsunamis by Warning System</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>a.</td>
<td></td>
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<tr>
<td></td>
<td>b.</td>
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5. Is the following sentence true or false? Most earthquakes generate tsunamis. ________________

Other Dangers

6. The sinking of the ground caused by earthquake vibrations is called ground ________________.

7. During an earthquake, violent shaking can cause soil and rock on slopes to fail, resulting in ________________.

Predicting Earthquakes

8. Circle the letter of the things that scientists measure along faults or fractures when predicting future earthquakes.
   a. temperature of well water
   b. building damage
   c. carbon dioxide emissions
   d. radon gas emissions

9. Is the following sentence true or false? Methods used to make short-range earthquake predictions have not been successful. ________________

10. Is the following sentence true or false? Scientists are able to make accurate long-term earthquake predictions based on their understanding of how earthquakes occur. ________________

11. What do scientists call an area along a fault where no earthquake activity has occurred for a long time? ________________