

Chapter 8 Earthquakes and Earth's Interior

# Section 8.2 Measuring Earthquakes

(pages 222–227)

*This section discusses types of seismic waves and how earthquakes are located and measured.*

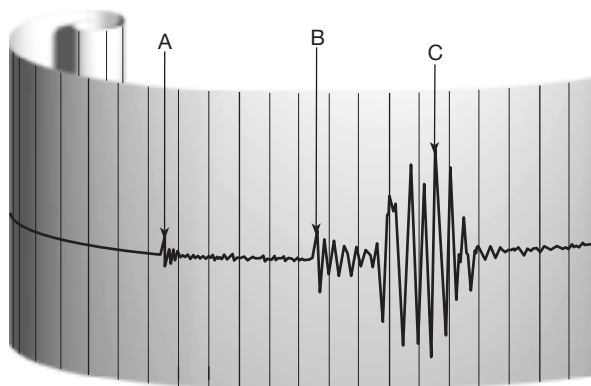
## Reading Strategy (page 222)

**Outlining** As you read, fill in the outline with the important ideas in this section. Use the green headings as the main topics and the blue headings as subtopics. 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.

<b>Measuring Earthquakes</b>	
I. Seismic Waves	
A. P Waves	
B. _____	
C. _____	
II. _____	
A. _____	
B. Seismograms	
III. _____	
A. Richter Scale	
B. _____	
C. _____	
IV. _____	

## Seismic Waves (page 222–223)

1. 🌀 Earthquakes produce two main types of seismic waves—body waves and \_\_\_\_\_ waves.
2. The figure shows a typical recording of an earthquake. Select the correct letter in the figure that identifies each of the following types of seismic waves.
  - \_\_\_\_\_ surface wave
  - \_\_\_\_\_ S wave
  - \_\_\_\_\_ P wave



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3.  Circle the letter of the name of the recording of the three types of seismic waves in the figure on page 81.
- a. seismograph                      b. seismogram                      c. seismic wave

**Measuring Earthquakes (pages 225–226)**

4.  Two types of measurements scientists use to describe the size of earthquakes are intensity and \_\_\_\_\_.

*Match each description with its term related to earthquake measurement.*

<b>Description</b>	<b>Term</b>
_____ 5. magnitude scale that estimates the energy released by earthquakes	a. intensity b. magnitude c. Richter scale
_____ 6. outdated scale for measuring magnitude of earthquakes	d. moment magnitude scale
_____ 7. <input type="radio"/> measure of the size of seismic waves or amount of energy released at the earthquake source	
_____ 8. <input type="radio"/> measure of the amount of earthquake shaking at a location based on damage	
9. <input type="radio"/> What measurement do scientists today use for earthquakes? Circle the correct answer.	
a. Richter scale                      b. moment magnitude scale                      c. modified Mercalli scale	

**Locating an Earthquake (pages 226–227)**

10. Is the following sentence true or false? On a seismogram, the greater the interval is between the arrival of the first P wave and the first S wave, the greater the distance to the earthquake source. \_\_\_\_\_
11.  Is the following sentence true or false? You can use travel-time graphs from two seismographs to find the exact location of an earthquake epicenter. \_\_\_\_\_