



Name _____ Class _____ Date _____

1 The **strength** of an earthquake is described by the use of a **scale of 1 to 10**, where 1 is the weakest strength and 10 the strongest. Geologists call this the _____.

- A seismograph scale
- B Mohs' scale
- C Richter scale
- D specific gravity scale

3 Geologists know that seismic waves from an earthquake anywhere on the earth's surface will travel through the earth. They have discovered that S-waves do not travel **straight through** the earth, but P-waves do.

What does this reveal about **S-waves**?

- A They do not really exist.
- B They cannot travel through the earth's

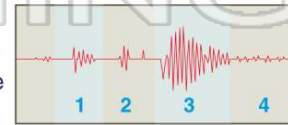
2 There is a specific relationship between the magnitude of an earthquake (its Richter scale number) and the amount of energy released by the earthquake. For each increase of 1 on the Richter scale, the amount of energy released is 31.7 **times** larger. **How much more energy does an earthquake of magnitude 7 release than an earthquake of magnitude 5?**

31.7 x 31.7

- A 31.7 times
- B 63.4 times
- C 75 times
- D 1004.89 times

4 Studying seismograms **leads** to all of the following information **except**

- A the strength of the earthquake
- B the epicenter (that is, the geographical location) of the earthquake



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PREVIEW

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lie face down away from buildings, trees, power lines, and other structures

find shelter in a steel building

- A super hard concrete
- B shock absorbers made of rubber and steel
- C thicker steel
- D thinner steel

9 Once an earthquake has **ended**, _____.

- A it is once again safe to go into your house
- B significant damage can still occur
- C there will be no more earthquakes in that area
- D immediate dangers are essentially gone



10 In 1906, a magnitude 8 earthquake struck San Francisco, California. As seen in this picture, the destruction of the city was nearly complete. Fire consumed much of the city and did **more damage** than the earthquake itself. **Geologically speaking, why did fire prove to be so completely destructive?**

- A The fire trucks couldn't move around the city.
- B The buildings were made out of too much wood.
- C The earthquake occurred in the middle of summer.
- D The earthquake broke the underground water pipes.





ANSWER KEY

The **strength** of an earthquake is described by the use of a **scale of 1 to 10**, where 1 is the weakest strength and 10 the strongest.

Geologists call this the _____.

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- B Mohs' scale
- C Richter scale
- D specific gravity scale

(c)

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$$31.7 \times 31.7$$

(d)

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Geologists know that seismic waves from an earthquake anywhere on the earth's surface will travel through the earth. They have discovered that S-waves do not travel **straight through** the earth, but P-waves do.

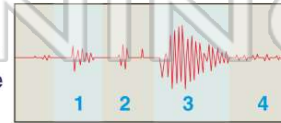
What does this reveal about S-waves?

- A They do not really exist.
- B They cannot travel through the earth's liquid core.
- C They only travel through the earth's liquid core.
- D They travel through the earth's solid core.

(b)

Studying seismograms **leads** to all of the following information **except**

- A the strength of the earthquake
- B the epicenter (that is, the geographical location) of the earthquake
- C the number of aftershocks that will occur
- D the depth of the earthquake



(c)



PREVIEW

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- D find shelter in a steel building

- C thicker steel
- D thinner steel

Once an earthquake has **ended**, _____.

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(b)

In 1906, a magnitude 8 earthquake struck San Francisco, California. As seen in this picture, the destruction of the city was nearly complete. **Fire** consumed much of the city and did **more damage** than the earthquake itself. **Geologically speaking, why did fire prove to be so completely destructive?**

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(d)