

Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Earthquake and Tsunami

## True or False

Use your *Living on Shaky Ground* magazine to answer the following true or false statements.

- |  |      |       |
|--|------|-------|
| 1. California will fall into the ocean.                                    | TRUE | FALSE |
| 2. You cannot surf a tsunami.  | TRUE | FALSE |
| 3. Small earthquakes prevent large ones from happening.                    | TRUE | FALSE |
| 4. Intensity and magnitude are the same thing.                             | TRUE | FALSE |
| 5. You should drop, cover, and hold on during an earthquake.               | TRUE | FALSE |
| 6. The ocean recedes before every tsunami.                                 | TRUE | FALSE |
| 7. Tsunami danger can sometimes last for more than a day.                  | TRUE | FALSE |
| 8. You will always receive an official warning for an approaching tsunami. | TRUE | FALSE |
| 9. Always be prepared for aftershocks.                                     | TRUE | FALSE |
| 10. You should travel on foot to get to high ground.                       | TRUE | FALSE |

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## Answer Key

# Earthquake and Tsunami

## True or False

Use your *Living on Shaky Ground* magazine to answer the following true or false questions.

- |  |                                       |  |
|--|---------------------------------------|--|
| 1. California will fall into the ocean.                                    | TRUE                                  | <input checked="" type="radio"/> FALSE |
| 2. You cannot surf a tsunami.  | <input checked="" type="radio"/> TRUE | FALSE                                  |
| 3. Small earthquakes prevent large ones from happening.                    | TRUE                                  | <input checked="" type="radio"/> FALSE |
| 4. Intensity and magnitude are the same thing.                             | TRUE                                  | <input checked="" type="radio"/> FALSE |
| 5. You should drop, cover, and hold on during an earthquake.               | <input checked="" type="radio"/> TRUE | FALSE                                  |
| 6. The ocean recedes before every tsunami.                                 | TRUE                                  | <input checked="" type="radio"/> FALSE |
| 7. Tsunami danger can sometimes last for more than a day.                  | <input checked="" type="radio"/> TRUE | FALSE                                  |
| 8. You will always receive an official warning for an approaching tsunami. | TRUE                                  | <input checked="" type="radio"/> FALSE |
| 9. Always be prepared for aftershocks.                                     | <input checked="" type="radio"/> TRUE | FALSE                                  |
| 10. You should travel on foot to get to high ground.                       | <input checked="" type="radio"/> TRUE | FALSE                                  |

# Instructor's Notes

## Earthquake and Tsunami

### True or False

**True or False:** A series of statements that can each be judged as either “true”, meaning correct, or “false”, meaning incorrect.

#### Lesson Plan:

- The instructor will hand out copies of the provided *Living on Shaky Ground* magazines and the Earthquake and Tsunami True or False sheets.
- Using *Living on Shaky Ground*, the students will work independently or in small groups to answer the true or false statements.
- The class will come together to discuss the true or false statements. This provides an opportunity for reflection and clarification. The instructor should bring attention to the realities that explain why the false statements are false in order to emphasize the important of accurate information (see below).

\*The instructor is provided with an answer key.

#### Explanations of False Statements:

- California will fall into the ocean.
  - Earthquakes help to keep the land above sea level through uplift. Due to the tectonics, you do not have a situation where California would break off from North America.
- Small earthquakes prevent large ones from happening.
  - Small earthquakes release very little energy compared to large ones. It would take roughly five M5 earthquakes every day for 500 years to equal the power of one M9 earthquake.
- Intensity and magnitude are the same thing.
  - Intensity is a measure of how strongly the ground shaking feels at a particular location, whereas magnitude is related to the amount of energy released in an earthquake. Intensity is a qualitative measurement, while magnitude is a quantitative measurement.
- The ocean recedes before every tsunami.
  - Depending on the tsunami source and your location, the ocean can sometimes recede in a drawdown or have a positive surge inward. Any unusual activity, such as a sudden increase in wave activity or a loud roar, is a sign to get to high ground. If you feel an earthquake on the beach, don't wait before evacuating!
- You will always receive an official warning for an approaching tsunami.
  - Official warnings are typically for tsunamis coming from far away, known as distant tsunamis, which allow for the time to send out an official warning.