

Name: _____

What Is a Tsunami?

A tsunami (sue NAH me) is a string of large ocean waves. Some people call it "a wave train" or a "tidal wave." Tsunamis, unlike normal ocean waves, are not caused by tides. The word tsunami comes from the Japanese. Tsunamis are caused by a sudden, large motion on the ocean floor. They can be caused by an earthquake under the ocean. Sometimes an underwater landslide or volcano is the cause. When one of these things happens, the energy passes through the ocean water. Just like the ripples from a rock being thrown into a pond, the energy released by one of these motions spreads out in all directions.



The energy can travel many miles away. Tsunamis move at high speeds. Most tsunamis happen in the Pacific Ocean. In the deep waters, a tsunami may travel 450 miles per hour. Out in the ocean, a tsunami may be hard to see. As it comes close to shore, its speed slows down. The height of the wave builds. The tsunami may suddenly rise into a wave ten to one hundred feet high. These large waves are a disaster for coastal regions and people living there. Tsunami warning networks alert people living along coastlines in the Pacific Ocean. When a warning is sounded, people can move away from the coast to higher ground. The wavelength can be as long as 150 miles. This means the time (wave period) between the giant waves is long, too. Giant waves on shore can last for hours or even days after the earthquake or other disturbance.

How can you tell when a tsunami is coming? If you are standing on a beach, it is normal for waves to move in and out regularly. When a tsunami comes toward a beach, the water suddenly pulls back a great distance like a massive low tide. This can cause fish and boats to be stranded on the beach. The retreat of water is really a trough, the lowest part of a tsunami wave. The tsunami waves may hit the shore in only a few minutes after the trough.

Hawaii gets about one tsunami every year. Other states bordering the Pacific Ocean are also at risk. Alaska, California, Oregon and Washington have had damaging tsunamis, too.

What Is a Tsunami?

Questions

1. What is a tsunami and what causes them?

Name: _____

- _____ 2. What causes a tsunami?
- A. underwater earthquakes
 - B. underwater landslide
 - C. underwater volcano
 - D. all of the above
- _____ 3. Make an inference; which of these is probably true?
- A. Japan often has tsunamis.
 - B. The Atlantic Ocean never has tsunamis.
 - C. There is no way to know when a tsunami might hit.
 - D. All of the above
- _____ 4. Which of these is NOT used to describe a part of a wave?
- A. wave period
 - B. wavelength
 - C. trough
 - D. trench
5. How can people tell a tsunami is coming?
- _____
- _____
- _____ 6. As the tsunami waves get close to shore, what happens?
- A. The waves slow down.
 - B. The waves get higher.
 - C. The water retreats from the shoreline.
 - D. All of the above.

Name: _____

Twist and Shout: A Tornado is Coming!

One spring day my friend and I were playing outside. All of a sudden, the sky grew dark. Then strong winds began to whip the tree branches. Finally, the town siren began to wail. Oh, no! A tornado was coming!



Tornadoes are spinning columns of wind. They are very dangerous. These powerful winds can cause a lot of damage. They can suck up cars and trees. They can even pick up parts of houses! The powerful winds spin the objects around and then toss them back down to the ground. These twisters can occur anywhere at anytime. They are most common, though, during spring and summer, and between 3:00 pm and 9:00 pm. They are also most likely to strike in "Tornado Alley." Northern Texas, Oklahoma, Kansas, and Nebraska are all part of Tornado Alley. Tornadoes are common in Tornado Alley.

If you are inside when a tornado is approaching, move to a safe place. Closets or bathrooms on the lowest level of your home are great options. They are the safest places to be during a tornado. When picking a safe place, make sure that you stay away from any windows. The winds from a tornado could easily break the glass and hurt you.

If you are outside during a tornado, hurry inside a sturdy building as quickly as you can. If you cannot find one, lay down in a low spot on the ground. Then, use your arms to cover your neck and your head.

That spring day, my friend and I hurried inside. We headed to my family's safe place and waited for the twister to pass. Thankfully, our town was spared. The tornado did not touch down. Finally, it was safe to go outside and get back to *our touchdowns*. My buddy and I had been playing football when the tornado interrupted our game. Now, it was time to finish!

Twist and Shout: A Tornado is Coming!

Questions

1. Where should you hide during a tornado?

Name: _____

- _____ 2. What is Tornado Alley?
- A. the tail of a tornado
 - B. the best place to find alley cats
 - C. a bowling alley with tornado shaped pins
 - D. a place where tornadoes tend to occur
- _____ 3. Which of these is true?
- A. If you never want to see a tornado, move to Oklahoma.
 - B. Tornadoes are common early in the morning.
 - C. Tornadoes tend to occur after lunch and before bedtime.
 - D. Most tornadoes happen in the fall.
- _____ 4. What does **spared** mean in this story?
- A. gave or lent
 - B. left unharmed
 - C. damaged
 - D. an extra part

Name: _____

There, Their, They're

- | | | |
|----------------|---|--|
| they're | - | a contraction for the words <i>they are</i>
<i>They're going to the airport.</i> |
| their | - | something that belongs to people
<i>We rode in <u>their</u> car.</i> |
| there | - | a place; or used with the word <i>are</i> or <i>is</i>
<i>The box is over <u>there</u>.</i>
<i><u>There</u> are five coins in the bag.</i> |

For each sentence, write their, they're, or there on the blank line.

1. Nathan ate dinner at _____ house.
2. Imani said _____ coming over tonight.
3. Olivia set up the computer over _____.
4. My friends cannot find _____ jackets.
5. _____ are four squirrels in the yard.
6. _____ is an exciting movie playing tonight.
7. _____ always late!
8. The house over _____ is made of stone.
9. You can have another cookie if _____ is one left.
10. Can you help me fix _____ computer?

Name: _____

You're and Your

The word **you're** is a contraction for the words **you are**.

The word **your** is a word to describe something that belongs to you.

Use the word *your* or *you're* to complete each sentence.

1. May I borrow _____ baseball mitt?
 2. _____ my best friend.
 3. Is _____ homework finished?
 4. If you misbehave in school, _____ going to be grounded.
 5. I think _____ the best grandpa in the whole world.
 6. Is this _____ first trip to California?
 7. _____ going to have a great time here.
 8. Paul, _____ friend called on the phone.
 9. I haven't been to any of _____ basketball games this year.
 10. After dinner, _____ going to help clear the table.
- ★ **Challenge** _____ going with _____ father to pick up
_____ friends at the park.

Name: _____

Its or It's? It's So Confusing!

Just remember these simple rules:

If you can replace the word with "it is" or "it has", you always use the apostrophe!

The word **its** is used when something belongs to or is associated with something.

example 1: The dog ate **its** bone. (The bone belongs to the dog)

The word **it's** is the contraction for the words **it is** or **it has**.

example 2: **It's** (It is) a beautiful day today!

example 3: **It's** (It has) been a long trip.

Write the correct word (its or it's) in each sentence.

1. The chicken sat on _____ egg until it hatched.
2. Sally announced, "_____ Maria's birthday today!"
3. Dad doesn't think _____ a good idea to play outside today.
4. When do you think _____ going to rain?
5. The mother cat and _____ kittens are taking a long nap.
6. Our school is very proud of _____ students' hard work.
7. The dog licked _____ lips when it saw the big, juicy bone.
8. My teacher said that _____ important to read every day.
9. The football team won _____ final game.
10. "_____ time to go to school," my mom exclaimed.

