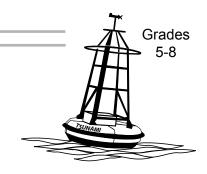
Tsunamis in Literature and Legends

Overview:

Stories and legends of tsunamis have long been used to educate children about the signs of an impending tsunami. Students read Pearl S. Buck's book, *The Big Wave*, and evaluate how the characters in the book prepared for and responded to the threat of a tsunami.



Targeted Alaska Grade Level Expectations:

Science

[5] SE3.1 The student describes the various effects of an innovation on the safety, health, and environment of the local community.

Reading

[5-6] The student comprehends literal or inferred meaning from text by locating information explicitly stated in narrative and informational text to answer literal-comprehension questions.

Objectives:

The student will:

- read The Big Wave together with the class;
- · discuss with the class what the villagers did to avoid the tsunami; and
- · act out a scene of his or her choice from the book.

Materials:

- · One or more copies of The Big Wave, by Pearl S. Buck
- STUDENT WORKSHEET: "The Big Wave"

Science Basics:

Coastal populations with a history of tsunamis have known for generations that earthquakes and volcanic eruptions may be followed by a series of huge waves that bring about even more destruction than the event that caused them. Historically, people relied on legends to recognize signs that a tsunami may occur. In the book *The Big Wave*, a watchman rang a bell to warn villagers of an impending tsunami. The warning prompted them to run to higher ground. Through modern technology, seismometers detect seismic activity during earthquakes and ocean buoys measure pressure changes on the sea floor. The resulting data provides nearly instant information about a probable tsunami, providing time to notify and evacuate coastal communities. At other times, this data is used to downgrade a tsunami threat, allowing communities to continue their daily lives uninterrupted.

Activity Procedure:

- 1. Explain that stories or legends about tsunamis are used to teach each generation how to recognize the signs of a tsunami before it strikes, and what to do if these signs occur.
- 2. Introduce the book *The Big Wave* by Pearl S. Buck. Ask students to take turns reading from the book or assign the book as homework.

- 3. During class discussion about *The Big Wave*, ask the following questions:
 - a) How did Jiya explain why his house does not have a window facing the sea?
 - b) What did Kino see that made him think the volcano was erupting?
 - c) What changes did Kino notice in his surroundings from the time the volcano erupted to the time the big wave occurred? List at least three.
 - d) How did Old Gentleman alert the villagers?
 - e) What affect did Old Gentleman's alert have on the community?
 - f) Do you think the people would have rebuilt the community had Old Gentleman refused to continue providing warnings? Why or why not?
- 4. Distribute the STUDENT WORKSHEET: "The Big Wave" and instruct students to answer the questions.
- 5. Ask students, as a class, to select one section of the book to act out as a play. They may want to have props, such as cardboard boxes for houses or boats, and a bell to ring. Allow 15 minutes of class time for them to determine their roles, and how each student will act out their parts.
- Have students act out the chosen scenes. Invite another class to be the audience.

Critical Thinking:

Role Playing Method: Ask students how communities alert people today, in modern times. Ask them to perform the play again, except this time encourage them to include modern techniques of recognizing that a tsunami is coming, and demonstrate how that will affect the outcome of the play.

Answers:

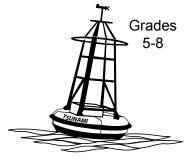
- 1. Jiya said "the sea is our enemy." (p. 4)
- 2. The sky was overcast to its zenith. (p. 16)
- 3. Answers will vary but should include three of the following:
 - a) no fishing boats set sail (p. 17)
 - b) there was no wind (p. 17)
 - c) the sea lay dead and calm (p. 17)
 - d) the sea was a purple gray, suave and beautiful (p. 17)
 - e) a red flag was hung on a pole (p. 18)
 - f) the sky grew black (p. 18)
 - g) the air was hot (p. 18)
 - h) the volcano glared blood-red against the black sky (p. 18)
 - i) a hurricane wind broke out of the ocean (p. 20)
- 4. He raised a red flag and tolled a bell.
- 5. It alerted the villagers to the danger, causing many of them to evacuate to the mountain
- 6. Answers will vary

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Student Worksheet

The Big Wave

Directions: Answer the following questions.

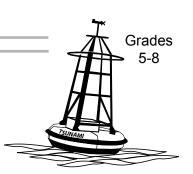


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Student Assessment:

Teacher: Use this Student Assessment sheet to keep track of student participation for this lesson. Also, remember to take photographs and/or videos of student work to share with the Geophysical Institute.



Student Name	Read The Big Wave	Participated in Developing Play	Participated in Play