

**Activity Title:**

# 6c - Survey and compare perceptions of tsunami risk and level of preparedness

*(This activity was adapted from the ideas generously provided by the teachers at Tauranga Girls College)*

**Learning outcome(s):**

- Conduct a survey; collect, record and present data.
- Consider attitudes and preparedness for tsunami

**Key words:**

Human geography; tsunami; inundation maps

**Materials:**

- Clipboard, pens and surveys (developed as part of this activity) for data collection
- Transport to survey sites
- Computers and excel (or similar) software to graph results.

**Approximate time required:**

Several lessons

**Suggested prior learning:**

3d Tsunami and inundation mapping

**Possible learning activities:**

1. Complete activity 3d or become familiar with the Bay of Plenty Civil Defence Evacuation Zone maps (also known as inundation maps). The maps can be found on the BOP Civil Defence website at [www.bopcivildefence.govt.nz](http://www.bopcivildefence.govt.nz). Download the latest inundation map for the area you require (e.g. Tauranga, Mt Maunganui and Pāpāmoa) from the tsunami page (to access click on the tsunami icon on the natural hazards page or use the following link <http://www.bopcivildefence.govt.nz/be-prepared/what-to-do-in-a#Tsunami>). Note: the map links can be found at the bottom of this page.
2. Consider the level of risk in different suburbs and discuss the different levels of preparedness that people may have. You could invite someone who is very well prepared to come and talk to the class about their preparedness, evacuation plans etc...

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Curriculum Level:

Level 5 / 6

Curriculum Links:

**Social Science**

**Achievement objective**

**8.2** Understand how people's diverse values and perceptions influence the environmental, social, and economic decisions and responses that they make.

Curriculum:

*Key competencies:*

*Thinking, Relating to others*

*Principles:*

*Community engagement*

*Values:*

*Community & participation*

Geographic Key

Concepts:

Perspectives; Processes

Geographic skills:

Social skills, Fieldwork skills

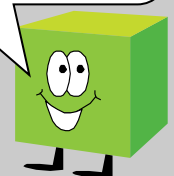
Assessment

opportunities:

All

Sustainability tip!

Save paper with your questionnaire design and take a bus to the survey sites!



3. Identify two suburbs with different natural and cultural features and inundation risks. Write questions to answer the following research questions (or make up your own research questions):
  - How do residents of western Bay of Plenty suburbs perceive their risk of inundation by tsunami?
  - What is their level of preparedness for a significant tsunami event? (e.g. Have they got an emergency supply of food and water? Do they have a grab bag? Have they created their own evacuation plan? etc)
4. Discuss the aims of the survey and how they could be achieved through an oral survey of people at two or more locations. Determine how many people should be surveyed to achieve the survey aims.
5. Develop questionnaires and trial them on one another to ensure the required information will be collected. Discuss how best to approach people.
6. Visit the survey sites and conduct the survey.
7. Enter data into excel and graph.
8. Discuss the following:

#### *Findings*

- Discuss and share your findings. Were they as you expected?
- How do people perceive their risk? Was there a difference between different suburbs? If so – why may this be?
- How prepared are people? What kind of preparedness do they have? Was there a difference between different suburbs? If so – why may this be?
- What are some of the implications of your findings?
- What further research could be conducted to better understand the way people perceive and prepare for tsunami risk?

#### *Survey technique*

- If you could start again would you change the way you designed your questions? How? How else could you conduct a survey of this nature? Discuss different survey methodology options?

#### **Additional resources / activities:**

- Write a report that presents and analyses the findings from this research.
- Walk up the Pāpāmoa hills to view coastal development and complete a sketch map of areas at risk
- Discuss the relationship between population growth and population distribution and the risk of tsunami (e.g. consider how having more people affects our response to a tsunami: does tsunami risk affect population distribution?).

#### **Follow-on activities (found elsewhere in this resource):**

- 4a How natural and cultural geography inform our planning for growth.