



Tsunami

AWARENESS

This lesson will inform students of the causes and impacts of tsunami both within Australia and overseas.

- ▶ Provide students with access to: <https://www.schools.aidr.org.au/media/5275/aidr-tsunami-lesson-plan.pdf>
 - ▶ Ask students to read the Cairns tsunami information guide: https://www.cairns.qld.gov.au/__data/assets/pdf_file/0006/7827/CRC01875_TsunamiFlyerFINAL.pdf
 - ▶ Provide students sufficient time to read the web pages, either within class time or as a homework task.
Ask students to make notes of the key findings of the article. Suggested reading time: 20 minutes.
 - ▶ Ask students to complete the online quiz either individually, in pairs or conduct the quiz together as a class following reading the web pages.
- If web access is not available in class, provide students with the attached quiz
Suggested time for answering questions: 15 minutes
- ▶ Following reading the article conduct an in class discussion to go over students responses to the questions.
Suggested time for in class discussion: 15minutes. Refer to the notes provided from the website.
 - ▶ Invite students to discuss the likelihood and implications of a tsunami in Cairns

Curriculum links

11-12	Science	ACSES005: Science Understanding; Science Enquiry Skills	Interpret a range of science and media texts and evaluate processes, considering the quality of available evidence; use reasoning to construct scientific arguments.
11-12	Science	ACSES098: Science Understanding; The cause and impact of Earth hazards	Earth hazards result from the interactions of Earth systems and can threaten life, health property, or the environment; their occurrence may not be prevented but their effect can be mitigated
11-12	Science	ACSES101: Science Understanding; The cause and impact of Earth hazards	Major weather systems generate flood events and droughts; the occurrence of these events affects other Earth processes and interactions (for example, habitat destruction and ecosystem regeneration
11-12	Science	ACSES102: Science Understanding; The cause and impact of Earth hazards	Human activities, including land clearing, can contribute to the frequency, magnitude and intensity of some natural hazards, (for example drought, flood, bushfire, landslide) at local and regional scales
11-12	Science	ACSES103: Science Understanding; The cause and impact of Earth hazards	The impact of natural hazards on organisms, including humans and ecosystems depends on the location, magnitude and intensity of the hazard, and the configuration of Earth materials influencing the hazard (for example biomass and substrate)
11-12	Science	ACSES106: Science Understanding; The cause and impact of Earth hazards	Climate change affects the biosphere, atmosphere, geosphere and hydrosphere; climate change has been linked to changes in species distribution, crop productivity, sea level, rainfall patterns, surface temperature and extent of ice sheets
11-12	Geography	ACHGE012: Geographical Knowledge; Overview of natural and ecological hazards	An overview of the nature of natural hazards (atmospheric, hydrological and geomorphic) and ecological hazards
11-12	Geography	ACHGE013: Geographical Knowledge; Overview of natural and ecological hazards	The concept of risk as applied to natural and ecological hazards
11-12	Geography	ACHGE014: Geographical Knowledge; Overview of natural and ecological hazards	The temporal and spatial distribution, randomness, magnitude, frequency and scale of spacial impact of natural and ecological hazards at a global scale
11-12	Geography	ACHGE015: Geographical Knowledge; Overview of natural and ecological hazards	The role of spatial technologies in the study of natural and ecological hazards
11	Geography	ACHGE022: Geographical knowledge and understanding; Depth and study of an ecological hazard	The nature and causes of the selected hazard and how the activities of people can intensify its impacts
11	Geography	ACHGE023: Geographical knowledge and understanding; Depth and study of an ecological hazard	The magnitude, frequency, duration, temporal spacing and effects of the hazard

Classroom activity

Classroom resources provided by Cairns Regional Council



11	Geography	ACHGE024: Geographical knowledge and understanding; Depth and study of an ecological hazard	The diffusion and resulting spatial distribution of the hazard, and how an understanding of biophysical and human processes can be used to explain its spread
11	Geography	ACHGE025: Geographical knowledge and understanding; Depth and study of an ecological hazard	The physical and human factors that explain why some places are more vulnerable than others
12	Science	ACSES094: Science as a human endeavour; The cause and impact of Earth hazards	People can use scientific knowledge to inform the monitoring, assessment and evaluation of risk
12	Science	ACSES097: Science as a human endeavour; The cause and impact of Earth hazards	Scientific knowledge can be used to develop and evaluate projected economic, social and environmental impacts and to design action for sustainability
12	Science	ACSES098: Science as a human endeavour; The cause and impact of Earth hazards	Earth hazards result from the interactions of Earth systems and can threaten life, health, property, or the environment; their occurrence may not be prevented but their effect can be mitigated
12	Science	ACSES099: Science as a human endeavour; The cause and impact of Earth hazards	Plate tectonic processes generate earthquakes, volcanic eruptions and tsunamis; the occurrence of these events affects other Earth processes and interactions (for example, ash clouds influence global weather)
12	Science	ACSES100: Science as a human endeavour; The cause and impact of Earth hazards	Monitoring and analysis of data, including earthquake location and frequency data and ground motion monitoring, allows the mapping of potentially hazardous zones, and contributes to the future prediction of the location and probability of repeat occurrences of hazardous Earth events, including volcanic eruptions, earthquakes and tsunamis
12	Science	ACSES103: Science as a human endeavour; The cause and impact of Earth hazard	The impact of natural hazards on organisms, including humans, and ecosystems depends on the location, magnitude and intensity of the hazard, and the configuration of Earth materials influencing the hazard (for example, biomass, substrate)