



LEARN ABOUT
TSUNAMIS!

Geology | Geography | Physics | Mother Language | History | Arts



NATURAL HAZARDS

PEDAGOGIC CONTENT:

- Volcano eruption
- Natural hazards
- Tsunami
- Earthquake
- Landslides
- Tectonic plates theory
- Geological structure

PRE-REQUISITES:

- Basic knowledge on geological structure of the Earth
- Computer skills

NEW COMPETENCIES TARGETED/LEARNING OUTCOMES:

STUDENTS WILL BE ABLE TO:

- Explain the terms, hazard, natural hazard, tsunami
- Extract information on the nature, causes, effects and preparedness for tsunamis
- Recognize the importance of learning about tsunamis and how this knowledge promotes in saving lives.



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DESCRIPTION:

IMPLEMENTATION

 **#1:** (emotional warm-up phase): The educator tells the story to the students about some of the biggest tsunamis in the history and their consequences. Even better, he/she shows to the students a video on this topic (e.g. <https://youtu.be/MZtC-LmG4pg>). A short discussion with the students follows.

 **#2:** Students are divided in groups with different research tasks (searching the internet & literature): group 1 will search for information on the nature of tsunamis (geographical – physical aspect); group 2 will search for information on the effects of tsunamis (socio – geographical aspect); group 3 will search for information on the frequency of their occurrence; group 4 will search for information on the ways to be prepared for tsunamis and to mitigate the consequences). Each group should get some worksheets (prepared in advance by educator) that will guide them in their research work.

Note: group tasks can also be designed differently, depending on what outcomes educator wants to achieve.

 **#3:** (feedback phase): Students present results of their research to the rest of the class. Alternatively, a method of rotating groups can be used in this step: each member of the group is assigned a letter A, B, C, D. etc. After the research, new groups are formed: all A members in one group, all B members in another and so on. This way newly formed groups are composed of members with different research results, and they present their results to each other within the group.

 **#4:** (creativity phase): students write an acrostic poem (T.S.U.N.A.M.I.), and present their poems to the rest of the class. After this, a poster or ppt can be made (individually or in groups), but the teacher/educator should point the students on the purpose of this tasks (informative poster / poster warning of the dangers of a tsunami / a poster to help people prepare for a tsunami etc. Posters can be exhibited on classroom/school walls.

Type of activity  information research, publication, exhibition

Target audience  From 12 years old

Place  Classroom, ICT lab

Material needed  Access to internet, tablets, computers, printer, worksheets

Duration of activity  Implementation: 1-4 hours

Authorship  HCMR (Education Unit)
No registration or authorization for use is required

Links  <https://www.ngdc.noaa.gov/hazard/tsu.shtml>

Videos for tsunamis

<https://youtu.be/sBkMlyUyUZg>

Animation of creation of tsunamis

<https://www.youtube.com/watch?v=Wx9vPv-T51I&feature=youtu.be>

How tsunamis work

<https://youtu.be/2V6ZIADfBh8>

how we can create a tsunami in classroom

<https://youtu.be/MZtC-LmG4pg>

study for the consequences of tsunami to Minoan Civilization

<https://youtu.be/ILlyfwDwJVs>

creation of tsunamis by the movement of tectonic plates

<https://youtu.be/9xJb0oqnT4c>

Tsunamis in Greece and Turkey

https://youtu.be/_eI3NfEJkQ

tsunamis created by earthquake in Samos island (Greece 2020)

<https://youtu.be/oWzdgBNfhQU>

Tsunamis in Japan

Notes by the authors  Background information for natural hazards





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Worksheet

Write an Acrostic Poem using the word below

T :

S :

U :

N :

A :

M :

I :



MED
EDUC



Erasmus+