**Erasmus+ project 2018-2020**

**2018-1-HR01-KA229- 047516**

**Stop Climate Change – Together Europe Achieves More**

**LESSON PLAN**

 **How Tsunamis Work**

**Teacher:** Rasa Ručienė, Alytaus r. Simno gimnazija, Lithuania

**Time:** *(45 minutes)*

**Level:** *Intermediate and above*

**Objectives and goals:** to raise awareness about the phenomena of tsunami due to climate change; to develop critical thinking and solving environmental problems; to develop speaking and listening skills; to introduce language to talk about the environment

**Outcomes**: students will realise the danger of the phenomena. They will find out about the causes of tsunamis, how people can be prevented of tsunamis.

**Languge skills**: answering questions, expressing opinion, agreeing, disagreeing,

**Required materials and equipment**: P.C. and a projector, sheets of paper, pens.

**Student grouping**: whole group, individual

**Literature:** 1 V. Evans, J Dooley. Prime Time 4.Coursebook, 2012

 2.. V. Evans, J Dooley. Prime Time 4. Teacher’s book, 2012

 3. Youtube. How tsunamis work- Alex Gendler

 4.Youtube. 5 Biggest Tsunami Cought on Camera

**Outline**

1. **Introduction** (8–10 minutes)

1.1. Short presentation of students and the teacher (country, age).

2.2. Teacher will ask some questions about tsunamis. What do students already know about tsunamis? How tsunamis are related with climate change? The teacher tells students to write three questions what they would like to ask about tsunamis.

**2.** **Procedure** (35 minutes)

**2.1. Students watches the film “How tsunamis work” by Alex Gendler**

**2.2. The teachers shows the slides and explains how tsunamis happen.**

A tsunami is a large wave that travels at great speed towards land. They usually happen due to three causes after:

* an underwater earthquake
* a large undersea landslide
* an underwater volcanic eruption

When an undersea earthquake happens, the Earth tectonic plates move suddenly downwards or upwards. This usually happens on a fault line and one plate slides below the neighbouring plate causing a large amount of water to be forced upwards.

This water forms a wave. Just like you throw a pebble into a lake, the water ripples outwards. It is the same with a tsunami, but the water doesn’t stop moving until it reaches land.

As the wave moves towards the land, it increases in speed and strength. Not all tsunamis are giant waves when they hit the shore, though. Many of them come inland as a strong and fast tide. However, the impact of the water often destroys everything in its path.

After the initial tsunami hits land, there are often other waves following it, that can be just as big, which slowly get smaller over time. The same as the ripples from the pebble mentioned before, but on a much larger scale.

Water is a very powerful force and can cause tremendous damage. As well as loss of life that tsunami can cause, it can flatten buildings and trees and destroy whole ecosystem.

**2.3. Students watch the film “5 biggest tsunamis on camera” on youtube**

**After watching the teacher asks questions:**

1. Why a tsunami so dangerous?
2. Where are they mostly likely to occur?
3. How can tsunamis be prevented?

**2.4. Students have to put sentences in the order a tsunami happens.**

Put the sentences in the order a tsunami happen:

* One plate slides below the neighbouring plate causing a large amount of water to be forced upwards.
* This water forms a wave.
* Waves come inland as a strong and fast tide and destroy everything in their path.
* The Earth tectonic plates move suddenly downwards or upwards.
* An undersea earthquake happens.
* The water ripples outwards until it reaches land.

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