Tsunami in sight!

1 Overall aims:

Cognitive (C)

- To discover the tsunami's waves
- To learn about natural phenomena
- To discover that the Earth has its own dynamics that affect man and nature

Affective (A)

- To know natural disasters' consequences
- To understand the natural world we live in

2 Vocabulary - keywords

Mathematical: waves, frequencies

Science: big waves, seabed's volcanoes, and earthquakes, undersea volcanic eruption

Sustainability: destruction of ecosystems, natural disasters, destruction of homes, economic losses

Art: painting, creativity

3 Sustainable abilities developed

- Self-awareness competence (If there is a tsunami, what shall I do? What can I protect myself and the others?)
- Anticipatory competency (what happens if there is a tsunami?)
- System thinking competency (distinction of the different attributes of a natural phenomenon)

4 Pillars of sustainability included

Environmental:

- Know and understand natural phenomena such as tsunamis and their environmental impacts: loss of biodiversity, destruction of the coast, beaches, marine ecosystems…

Social:

- Discover the social impact caused: destruction of homes, restaurants, roads, cars…

Economic:

- Analyze the economic impact of all the previous material losses, of the lack of communication, of the loss of connectivity…

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5 STEAM domains

Science skills (understand natural phenomena, tsunamis and its causes and consequences)
Mathematical skills (periodical movements, waves, frequencies)
Artistic skills (express their feeling through painting)

6 Teaching methodologies/activity outline

STEPS

1. Watch the video file about what a tsunami is and what causes it
   The teacher shows video files (4 minutes). All the group.
2. Select a marine animal: jellyfish, crab, octopus, squid, shark, dolphin…
   Imagine and draw a small story as if you were the animal selected and you were inside of a tsunami.
   The teacher explains the activity and tries to put the children in the situation so that they express their feelings. One session of 50' of individual work.
3. Explain your classmates the story you have drawn. *All the group. One session of 50', 2 minutes each child.*

7 Expected learning outcomes

The child will be able to:

- recognize a natural phenomenon
- know what a tsunami is and what causes it
- discover the volcanoes and earthquakes on the sea floor
- draw a story about marine animals inside a tsunami

8 Assessment

(C)

✓ What happens if there is a tsunami? What are its causes?
✓ What happens to the marine animals around it?

(A)

✓ What is a natural phenomenon? What would happen to houses, beaches, roads, cars…when the big waves arrive coast, how would they impact on men's life?

(P)

✓ Can you draw a story as if you were an animal inside of a tsunami? Can you explain it?

9 Equipment and materials to be used in learning unit (tools, ingredients etc.)

1. Digital whiteboard or computer and projector

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	2. Paints and cardboard
10	**Kind of setting - lab, kitchen, outdoor etc.** Classroom
11	**References - source:** What is a tsunami? https://www.youtube.com/watch?v=MfsugkikLJI

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