



# Πανελλήνιος Διαγωνισμός STEM

Μεσόγειος πηγή ζωής και πολιτισμού



Διοργανωτής: **STEM education**  
ORGANIZATION OF EDUCATIONAL ROBOTICS,  
SCIENCE, TECHNOLOGY & MATHEMATICS

Στρατηγικός Συνεργάτης: **COSMOTE**

Επιστημονικός σύμβουλος: **WRO**  
HELLAS

## « Mediterranean: Source of Life and Culture »

### Kindergarten

Editing: Sofia Christopoulou.

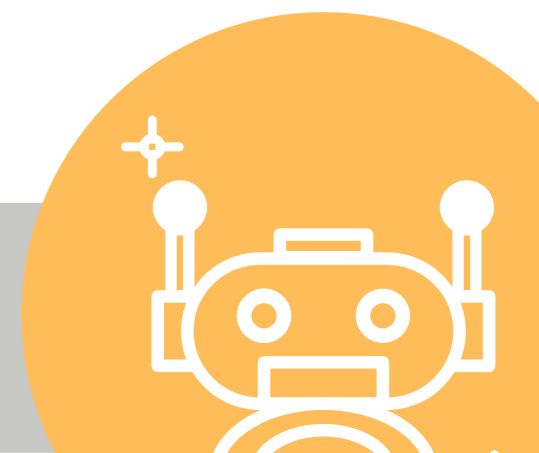
H The Mediterranean is a "complex of seas": it is a sea speckled with islands, interrupted by peninsulas, and encircled by lace beaches. Her existence is intertwined with the life of the land; her poetry is predominantly pastoral, and her sailors are occasionally farmers.

The Mediterranean is a sea of olives and grapes, but it is also a sea of small rowing boats and round commerce ships.

Lauso la mare e tente'n terro ("To sail the sea, but stay on land"), says a Provençal proverb.

***Fernand Braudel***

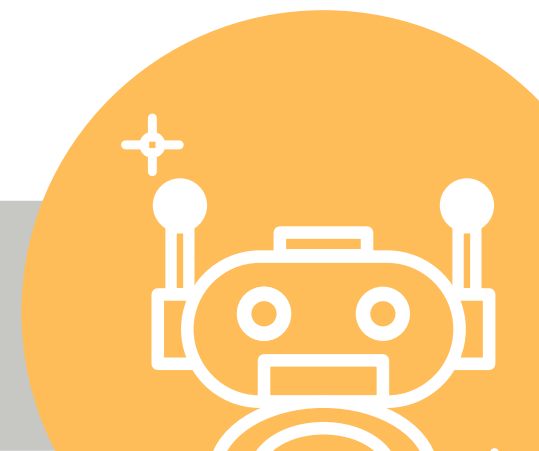
*Mediterranean: The role of the environment*



## The Mediterranean unites three continents



It is surrounded by people of many cultures.  
Ships transport the products of the countries that surround all of its ports.  
Along with fishing, shipping, trading, and, more lately, tourism...



**How much do these human activities affect our sea?**

Kindergarten «Mediterranean: Source of Life and Culture»



## **The main threats to the Mediterranean come from:**

### Oil spills:

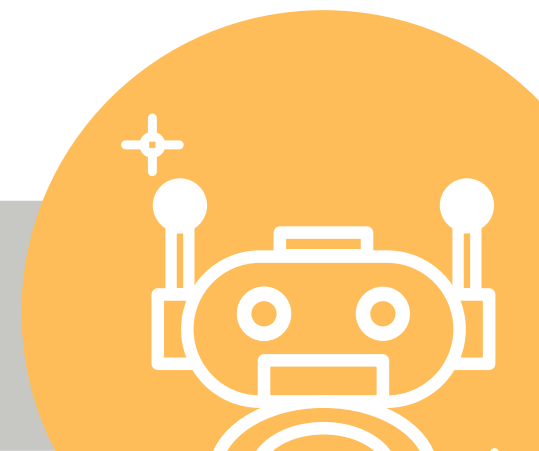
Ships discharge oil into the water. A layer of impenetrable material is created. Fish and marine animals are unable to breathe.

### Pollution from industry:

that spew solid and non-waste into the sea, endangering the marine ecology.

### Overfishing and the use of illicit fishing methods

As the population of the Mediterranean region expands, so does the need for seafood.



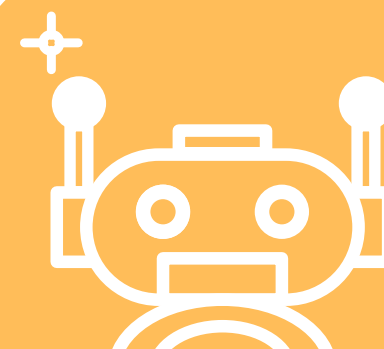
## The main threats to the Mediterranean come from:

Garbage:

whichever kind we leave behind. Poisoning, infections, asphyxia, and death occur as a result of this.

Pollution caused by chemicals:

Farmers use pesticides and other chemicals on their crops, which end up in groundwater and eventually in the sea.

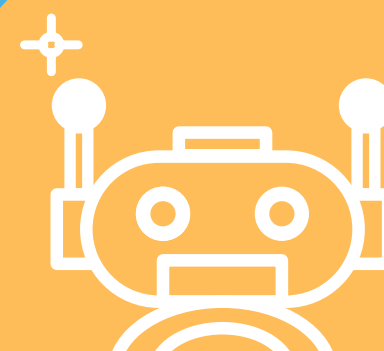


The Mediterranean needs our collective attention. We must safeguard her from harm.

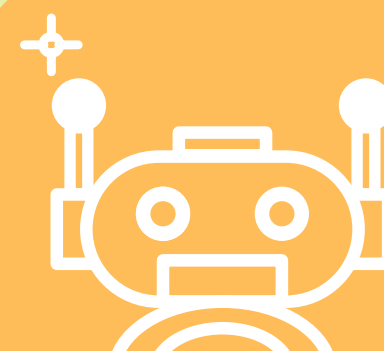
Otherwise, he will become enraged and switch positions.

If we wish to persuade her to stay, we must persuade everyone around her to keep her clean.

All Mediterranean peoples should establish rigorous policies to defend the Mediterranean from threats.



**Capture on a path of your robot "the 5 most important Don'ts" - from the list below - that must be implemented by all peoples around the Mediterranean to ensure the sustainability of...**

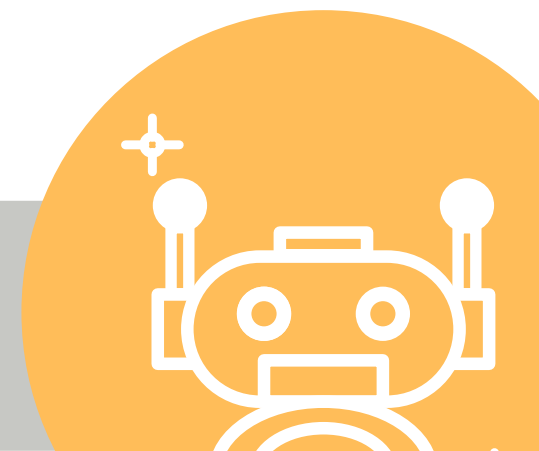






## The “NOT” list

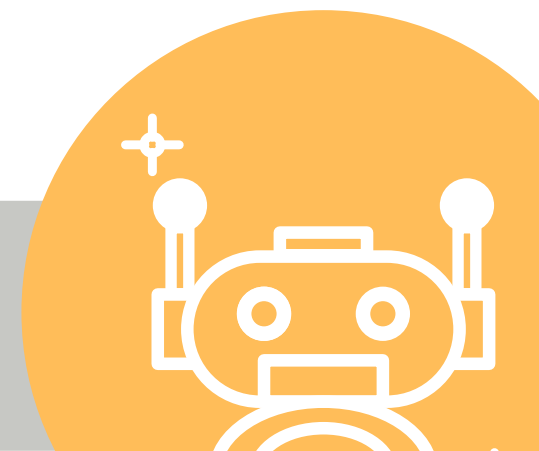
- We do NOT throw anything into the sea or onto the beach.
- We do NOT leave trash behind when we leave the beach.
- Farmers are NOT allowed to use pesticides or chemicals.
- Factories should NOT pollute the sea with dangerous substances, but be obliged by law to use filters.
- Fishermen should NOT use illegal fishing methods and not fish more than we need.
- We do NOT catch small fish during their spawning season





## The “NOT” list

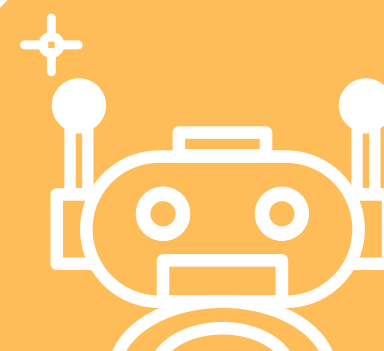
- Ships should NOT, when cleaning their tanks, empty the oil into the sea
- We do NOT cut the plants that grow on the shores.
- We do NOT collect shells or other living organisms from the sea or shores.
- We do NOT disturb marine organisms in the sea or on the shore
- We do NOT move stones and pebbles for no reason. It can be a nest of small marine organisms
- NOT ..... (another suggestion of yours)



## General Instructions

The children will create their first algorithm and present the actions they will take to protect the Mediterranean's unique ecosystem, all while developing their artistic and social skills.

Kindergarten pupils (ages 4-5) will be divided into groups of 6-10 youngsters. Each group of kids will build a floor track out of materials of their choosing. They will place miniature mock-ups on it, each characterised by 1-2 words and depicted in three dimensions (painting or collage)...

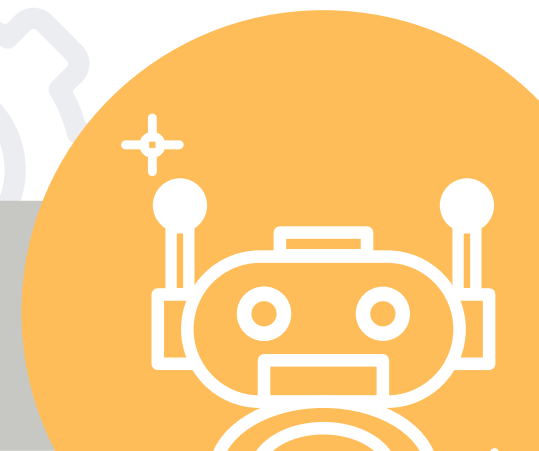


## General Instructions

They will install miniature mock-ups on it, each with 1-2 sentences and portrayed in three dimensions (painting or collage):

- Something they regard as more hazardous and threatening to the Mediterranean than human activity and
- that they believe is more important and fun than safeguarding our life-giving sea.

**⚠ Ready-made plastic toys are not permitted. ⚠**  
**Each invention must be built by the students using simple materials of their choice and depicting the threat or salvation of the Mediterranean in 3D!!!**

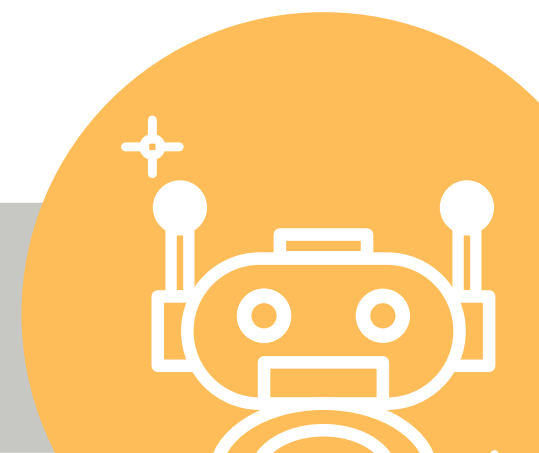
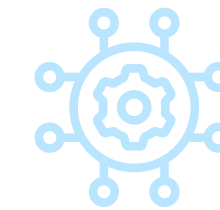
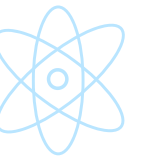
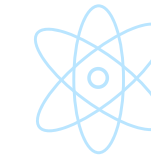


## Detailed description

**The Kindergarten game aims to teach young children how to think algorithmically for the first time.**

**The game is tailored to their specific age group and assists them in the following ways:**

- To express their ideas and knowledge by resolving a difficulty (problem solving),
- Learn the fundamental ideas of algorithm design and control.
- the execution of it
- It's a mistake.
- To apply spatial ideas of direction and orientation (right, left...).



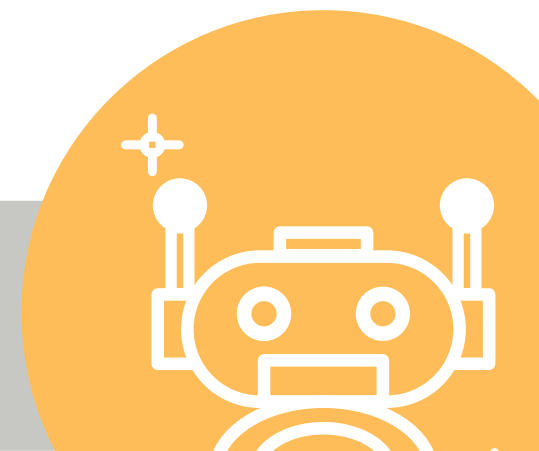
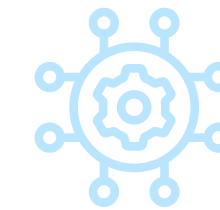
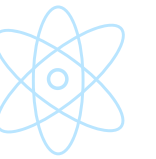
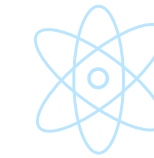
## Detailed description

- Learning by doing and receiving real-time feedback on how the commands they make guide a robot and aid in the continuation of a story.
- Take part in an activity that involves the entire body.
- To interact and collaborate with their classmates as well as adults.

### Marking:

**The game "Mediterranean, source of life and culture", is not competitive.**

Furthermore, time is an abstract concept, and temporal concepts are particularly challenging for preschool children. They frequently confuse today with yesterday, tomorrow with yesterday, and now with before.

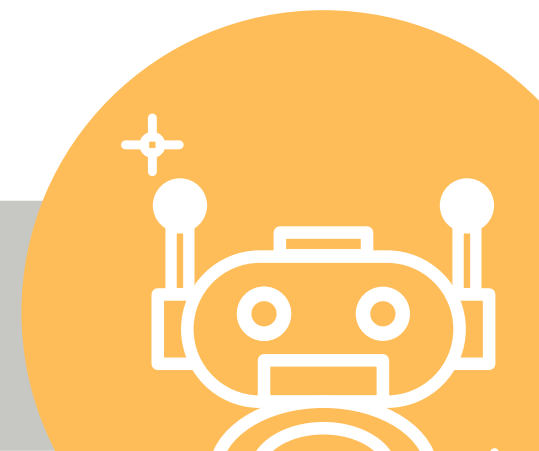


## Detailed description

All of this is part of learning temporal sequencing, which is the process of arranging ideas and events logically in order to divide our time, i.e. what to do first, second, and last.



**In addition to the foregoing, this game aims to be a tool for modern Kindergartens and to assist teachers in their teaching work.**



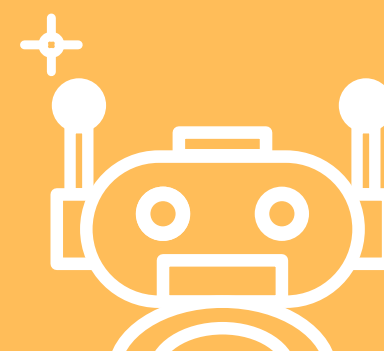
## APPROACH TO THE TOPIC

Engagement of children with the Mediterranean, our sea, and the peoples  
Whoever lives around her will be aware of the issues that we face.  
the people we have caused her, and they must also be dealt with.  
the points that should be improved.

Children will acquire all of this knowledge and come into contact with it.  
the good and bad that man is and will be accountable for  
opportunity to create wonderful adjustments in their seaside fantasy  
brings us together.

The groups should generate and design materials for the presentation's  
demands.

Tell a story that is compatible with the robot's path in the game.  
They will create room. The robot's history and journey can be viewed.  
have whatever structure the teams like, as long as it includes the  
At 4-5 stations, the youngsters will provide a narrative.

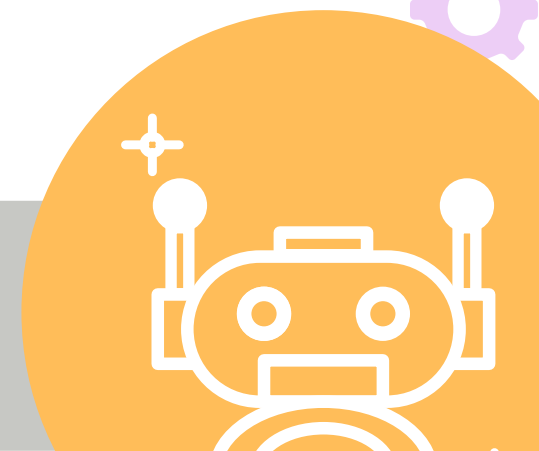




# TRACK AND MODEL CONSTRUCTION

## The groups:

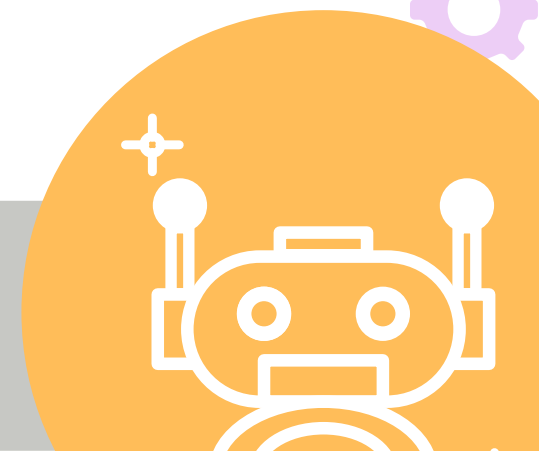
- They'll make 4-5 3D models of the points - stations in the area.
- They have created a narrative in 15x15cm or 30x30cm size. Mockups will be created.
- must be drawn by the students and may include
- They only get 1-2 words.
- They will make a floor track out of tarpaulin or other sturdy material.
- They will draw 15x15cm squares on cardboard.
- The models will be placed on the track, specifically on the
- Squares were designed. Subsequently
- They will sketch a path on the track that connects these
- According to the story, the children will decide in what sequence.
- which they will have come up with on their own.



# TRACK AND MODEL CONSTRUCTION

## The setting:

- It can have a minimum area of 90 x 90 cm (6 x 6 squares) and a maximum area of 1.5 x 1.5 m (10 x 10 squares).
- The "start" of the course should be marked with a square on the track.
- The "End" of the run should be marked by another square on the track.
- The remaining 1-2ares can be adorned in accordance with the story the youngsters have prepared.
- The "entrance" to each point - station of the stoanotherkes place when the robot comes to a stop on the precise square specified by each team (the square should be in contact with the point, i.e. be adjacent to the point).

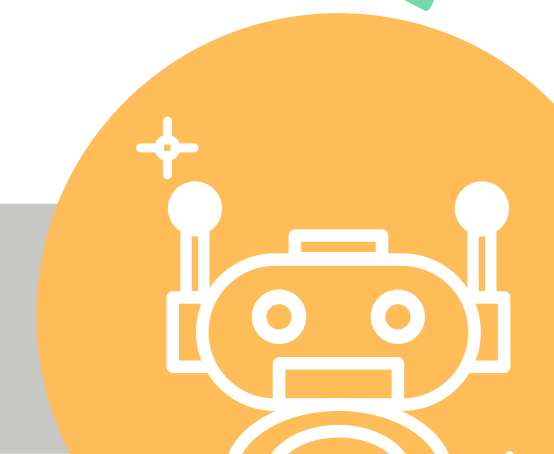


## PRESENTATION

Teams will be requested to demonstrate on the day of the presentation. route they've planned, combining planning and imagination. Children will programme a robot on-site. Make use of the code capture cards to take the chosen route.

When the robot comes to a stop or point, depending on what correspond: should a disapproving sound or one be heard? Students should present the most important pleasant sounds. components of following history's evolution, as it has formed.

At this moment, the youngsters are invited to join the army. their imagination and make their presentation as imaginative as possible.



## Method of assessment – Criteria

The competition is non-existent. Interdisciplinary teams will evaluate the teams. WRO Hellas will have one representative on the committee. A kindergarten teacher and a member of the artistic profession (visual arts) will be present. Group constructs are evaluated.

The committee will consider the following criteria:

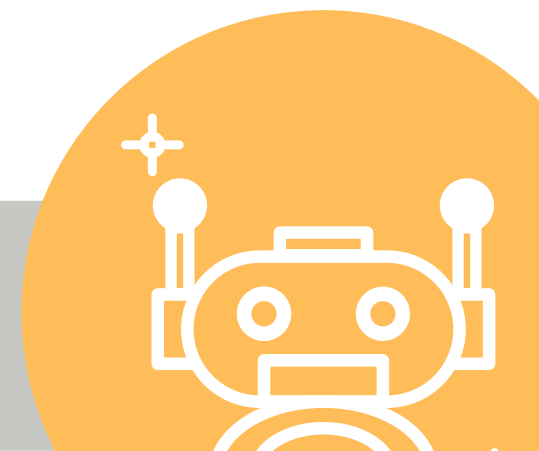
Participation of every child in the group in the entire process (individually and collectively)

The construction's precision and aesthetic effect

A creative presentation with proper pronunciation.

The robot's correct programming and loyal response to

Orders have been issued.



*So we know our little robots, we learn to programme them, and  
We are getting ready to take part in the robotics competition by starting it.  
journey—our own unique and special journey—to meet our sea, the  
Mediterranean...*

