# KIDS THINK

# BLUE

# Capacity building scheme for children:

## Kids Think (of) Blue

Final Version

Deliverable Number D.2.2.3.

# Kids think (of) Blue

*Connecting Curiosity with MAPA conservation*

## OBJECTIVE

**Understand how human actions affect the health of the sea**

## CAPACITY BUILDING

**A programme connecting science with fun - games, movement, and creativity.**

## MODULES

**Session 1: How Does Ocean Influence Us?**

**Session 2: How We Influence the Ocean**

## OUTCOMES

- **Enhanced marine knowledge**
- **Growing sense of responsibility from young age**

## TARGET

- **Kids (age 10 - 15)**
- **Teachers, educators, family members**

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# Table of Contents

# ABOUT THE CAPACITY BUILDING PROGRAM

## INTRO TO KIDS THINKS (OF) BLUE

Kids think (of) Blue is an interactive learning and capacity building programme designed for primary school children to help them explore, understand, and care for the ocean. It is part of the MAPA project, which focuses on protecting the sea and raising awareness about Marine Protected Areas (MPAs). Through fun activities, science games, creative workshops, and use of technology, the programme brings the wonders of the sea directly to children, wherever they are.

This programme helps children see how the ocean affects their daily lives – from the air they breathe to the weather they feel – and helps them discover how their actions affect the sea in return. By visiting Marine Adriatic Parks (either in person or virtually/digitally), and meeting marine animals and ecosystems, children learn to appreciate the beauty and importance of ocean life.

The programme is developed to be hands-on, playful, and educational, with activities led by educators who guide children through simple science experiments, storytelling, and teamwork. Children are encouraged to explore, ask questions, and imagine what they want the ocean to look like when they grow up.

Ideally designed for children age 12-15 but can be adapted for age groups of 10 – 15 with modifications by experience educators (level of complexity, use of scientific language, pace, etc.).

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## AIM OF PROGRAMME

The goal of the Kids think (of) Blue programme is to help children become more connected with the sea by learning about marine life, climate, and how we can all protect the ocean. It aims to build children's knowledge in a way that is fun, age-appropriate, and meaningful – giving them the first steps toward becoming young ocean protectors.

The programme also encourages active citizenship by inviting children to create and share their own messages to decision-makers and their communities, telling them what kind of future they want to see for the ocean. In this way, their voices become part of a bigger movement to protect our shared MAPA vision.

## KEY ISSUES TO TACKLE

- Many children don't learn enough about the ocean at school, even though it's a big part of our world.
- Children need more chances to experience nature and learn about it through discovery, creativity, and play.
- Marine areas are sometimes damaged by pollution or overuse, and children can help protect them by learning about the problems and sharing knowledge in their families and schools.

## BENEFITS FOR PARTICIPANTS

Through the programme, participants (children) will:

- Recognize the ocean's importance for sustaining life and regulating climate.
- Identify diverse marine life and habitats found in the ocean.
- Understand how humans' impact marine environments and ecosystems.
- Develop a sense of responsibility and adopt an action-oriented mindset toward nature.
- Feel inspired to serve as young ocean ambassadors within their schools and communities.
- Acquire engaging and essential ocean knowledge through fun, interactive activities.
- Experience real or virtual visits to Marine Protected Areas, learning their significance.

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- Engage with scientific tools, games, and hands-on experiments to explore marine science.
- Strengthen teamwork, communication, and observation skills during group activities.
- Create and share messages about the ocean's future, expressing their vision and concerns to adults and decision-makers.

At the end of the programme, children will receive a certificate recognizing their participation, and their creative messages will be shared through public events and online – giving them a platform to be heard.

# PROGRAMME CONTEXT AND STRUCTURE

## PROGRAMME CONTEXT

The Kids Think (of) Blue is created to engage young minds in discovering the wonders of the ocean through playful learning, interactive activities, and immersive experiences. Grounded in the simplified definition of Ocean Literacy – understanding the ocean's influence on us and our influence on the ocean and the seven ocean literacy principles, the programme helps children develop early awareness of the vital role the sea plays in our lives and how we can protect it.

*Principles of Ocean Literacy*

1. Principle 1 of Ocean Literacy: Earth has one big ocean with many features
2. Principles 2 of Ocean Literacy: The ocean and life in the ocean shape the features of Earth
3. Principle 3 of Ocean Literacy: The ocean has the greatest influence on climate and weather
4. Principle 4 of Ocean Literacy: The ocean makes Earth habitable
5. Principle 5 of Ocean Literacy: The ocean supports a great diversity of life and ecosystems
6. Principle 6 of Ocean Literacy: The ocean and humans are inextricably interconnected
7. Principle 7 of Ocean Literacy: The ocean is largely unexplored

# PROGRAMME STRUCTURE

Each round of the *Kids Think (of) Blue* programme follows a **child-friendly capacity-building model** - making sure children are not only having fun, but also learning, reflecting, and growing their connection with the natural world through two interactive sessions:

## Session 1: How does Ocean influence us?

This session introduces children to the amazing world of the ocean through storytelling, hands-on experiments, sensory experiences, and fun group activities. The goal is to help children understand why the ocean is important, what kinds of animals and plants live there, and how we can all help protect it through two platforms:

1.  Marine Diversity (with focus on Macro and Microworld of the Sea)
2.  Connected with the Ocean (MPAs, Climate, Research and Blue Economy)

Through games, guided exploration, and creative thinking, participants will build awareness of marine life, climate change in the sea, and the role of marine protected areas (MPAs). They will also get the chance to learn how scientists explore the ocean, using real or simplified versions of research tools and technologies.

## Session 2: How we influence the Ocean?

This part of the programme brings children closer to real marine environments through either a field visit or digital experience (example: with an immersive virtual reality (VR) experience) – depending on local possibilities and accessibility.

1.  Bring me to the Sea (field visit or virtual visit)
2.  Hear my voice (imagine the future of the sea)

## Feedback

Their feedback and creations will help evaluate the programme's success and inspire future actions.

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## PARTICIPANTS

The Kids Think (of) Blue programme welcomes children aged 10 to 15 from primary schools and educational centres across the Jadranska Hrvatska, Marche, and Molise regions, with the model easily adaptable to communities throughout the wider Mediterranean. By targeting young learners at a formative age, the programme fosters early curiosity, environmental literacy, and stewardship for the ocean and its ecosystems.

Participants include children with diverse backgrounds and learning needs, as the programme is designed to be accessible, inclusive, and engaging for all. Through partnerships, we ensure participation from urban, coastal, and inland communities, including those with limited access to marine environments or science learning opportunities.

No prior knowledge of marine science is required – the workshops blend playful storytelling, hands-on experiments, interactive technologies, and group activities, making learning about the ocean fun, inspiring, and accessible.

By engaging children as active participants - whether through field visits, immersive digital experiences, or creative thinking exercises - Kids Think (of) Blue enables young voices to imagine and influence the future of the sea, fostering a new generation of informed and passionate ocean advocates.

# EXPECTED OUTCOMES

## Cognitive Outcomes

- The participant understands the basics of marine ecology and ecosystems, including the predator-prey relationship.
- The participant understands the connection between many people and the ocean, including the role of the ocean as a provider of food, jobs, and opportunities.
- The participant is familiar with the basic premise of climate change and the role of the ocean in regulating our climate.
- The participant understands the present threats to marine ecosystems such as pollution, overfishing, and can recognize and explain the vulnerability of many specific habitats and communities (e.g., coral reefs, coralligenous communities).
- The participant understands the concept of sustainable use of marine resources.

## Socio-emotional Outcomes

- The participant can advocate for sustainability in the use of marine resources.
- The participant can present the main issues related to human impacts on oceans (biodiversity loss, acidification, pollution, etc.) and the value of a healthy ocean.
- The participant can influence a group that advocates for unsustainable use of marine resources.
- The participant can reflect on their own eating habits and needs and consider whether they represent an example of sustainable use of marine resources.
- The participant empathizes with people whose livelihoods and survival are affected by changes in fishing practices.

## Behavioural Learning Outcomes

- The participant knows how to explore the dependency of their environment on the ocean.

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- The participant can engage in a discussion and present arguments about sustainable methods, such as stricter fishing quotas, fishing moratoriums, and fishing bans for endangered species.
- The participant knows how to identify and find ways to purchase marine products from sustainable sources, i.e., eco-friendly products.
- The participant can advocate for the establishment of marine protected areas and no-fishing zones using scientific evidence.

## GENERAL DATA ON PROGRAM

### Keywords

scientific literacy, ocean, ocean literacy, interdisciplinarity, marine knowledge, global sustainability goals, Decade of the Oceans, marine protected area

### Target Group

Children (10 – 15 years) and their teachers indirectly, min. 10 per group

### Educators – Program Implementers

Scientists and experts (employees, volunteers, external experts if needed) with expertise in biology and interdisciplinary fields regarding nature protection with experience in educational work with children.

### Ways of Learning

- Learning through discovery and experience – research work, simulation, group projects.
- Learning through teaching – problem-solving.
- Collaborative learning – independent thinking, knowledge exchange, presentation.

### Teaching Methods

- Listening and viewing.
- Observation.
- Participation in discussions/debates.
- Group presentations.
- Field experience.

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## Description of Work

- A frontal approach where interactive lectures by scientists and experts will be held.

- Group work with elements of individual work.

- Individual interaction of students with scientists and experts.

- Interaction between students and marine organisms, as well as scientific research equipment under supervision.

- Number of Sessions: 2 sessions per group, implemented at least 5 times per country

- Session Duration: one session is approx. 3 school hours – 135 minutes, with breaks for refreshments.

## Location of Implementation:

- Preferably Outdoor Environment: The program will be implemented in outdoor settings when possible (even if it is the school yard).

- These environments will provide a hands-on, immersive experience in marine education and environmental science.

## Methods of Monitoring and Verifying Outcomes/Achievements

- Evaluation sheet

# PROGRAMME SESSIONS

## SESSION 1: HOW DOES OCEAN INFLUENCE US?

*A deep dive into the invisible and visible wonders of the sea, the connections between ocean and climate, and how science helps unravel these mysteries.*

1. Marine Diversity (with focus on Macro and Microworld of the Sea)

   ☐ Coastal Marvels

   ☐ Marine Microcosm

2. Connected with the Ocean (MPAs, Climate, Research and Blue Economy)

### Timeline & Activities

### 0–5 min: Welcome & Ocean Wonders Icebreaker

- Greet the group. Invite each child to share an ocean animal they've heard of, and why it fascinates them.

After the icebreaker split participants - one group goes Platform 1 and the other to Platform 2, when finished, they switch

### 5-50 min: Platform 1: Marine Diversity

### *5 – 30 min: The Coastal Marvels - Biodiversity of the Sea*

- **Sensory Introduction (5 min):**

  - Pass around shells, skeletons, and living specimens (if feasible)

  - Invite children to guess which creatures they belonged to.

- **Explorative Workshop (20 min):**

  - "Let's play Marine ID!" Sort specimens by type: invertebrates, fish, seaweed, etc.

  - Explain zones of the sea (supralittoral, mediolittoral, infrallitoral, cirkalittoral, batials, hadal) discuss what conditions (light, nutrients, oxygen, pressure) support diversity.

- Share fun facts about the specimens highlighting their trades, if they are strictly protected and why, what do they eat, what eats them, how do trophic cascade work and what can happen if we exclude a creature from the marine ecosystem?
- Highlight: "Most creatures in the world's biggest habitat - the ocean- are still unknown to science but the biggest animal on the planet lives in the Ocean!"

- **Key Questions:**
  - "What makes sea life more diverse than land?"
  - "What happens if even one part of a habitat disappears?"
  - "What part of the Oceans are more diverse?"
  - "Have you heard about biodiversity hotspots? And that the Mediterranean is one of them?"

*30 – 50 min: Marine Microcosm – Life in a Drop of Water*

- Transition: "But did you know, even a drop of seawater is a whole world in itself?"
- **Interactive Mini-Lecture and Demo (5 min):**
  - "The ocean is not just whales and turtles but teeming with invisible life."
  - Introduce phytoplankton ("tiny 'plants' that make most of our planet's oxygen"), zooplankton (their animal munchers), and the critical marine food web.
  - Show micrographs or video of plankton.

- **Key Questions:**
  - "Why is life in a single drop of seawater important for all life on Earth?"
  - "How do tiny organisms help even the biggest animals survive?"

- **Hands-on Practical (10 min):**
  - Children use a stereomicroscope to view real or prepared plankton samples.
  - Prompt them to draw what they see, label findings on worksheets ("Draw the creature you spot in your water drop!").

- Equipment: Stereomicroscope with screen, pipettes, Petri dishes, pre-prepared plankton samples.
- **Group Discussion (5 min):**
  - "Who found the strangest shape? Why are all these tiny things so important?"
  - Try to identify the key groups of organisms found in the droplet

**50 – 60 min** *--Advisable: Short break (10 min)—*

**60 – 100 min: Platform 2: Connected with the ocean**

*60 – 80 min: The Ocean Shapes Our Weather and Climate*

- **Interactive Story (5 min):**
  - "Ocean water absorbs sunlight. Have you noticed the sea is warmer some years?"
  - Explore: Water cycle, connections between ocean, atmosphere, and life on land.
- **Group Experiment (10 min):**
  - Demonstrate ocean acidification: Use vinegar/Coca-Cola on shells to illustrate how increased $CO_2$ "melts" shells
  - Use litmus/indicator paper, observe colour changes; discuss pH.
- **Prompt Discussion (5 min):**
  - "How does the ocean help or suffer as our climate changes?"
  - "How do the people on the coast feel the Oceans impact and how to people inland?"
  - "Can we save the sea?" "From whom are we saving it from, and for who?"

*80-100 min: Ocean Exploration – STEAM in Action*

- **Show-and-Tell/Short Video (15 min):**
  - "Meet a Marine Explorer!" Present real research tools: underwater drones, ROV, plankton nets, sampling bottles, sensors, dive gear, cameras (whatever at disposal)
  - Short video: Day in the life of a marine researcher.
- **Discussion (5 min):**
  - "Why does mapping and researching the sea matters?"

- "Are researchers enough? What do we do with the knowledge that research provides?"

**100 – 110 min** *--Advisable: Short break (10 min)—*

**110–125 min: Games**

- Play "Plankton-to-Whale Tag": children act as different links in the food web *OR*
- Play "MPA Role Play": children act as different stakeholder in a protected area with a problem familiar to local context (anchoring, overfishing, new marina, construction in coastal zone, overcrowded, destruction of habitat, disappearance of a species, …) (a manager, a researcher, a tourist, a developer, a local, an activist) *OR*
- Play "Human knot"; children get a paper with their role on it (a fish, a shell, a boat, the wind, small-scale fisherman, phytoplankton, zooplankton, researcher, politician, local resident), they form a circle and then go around in circle explaining how they are connected to the subject on their right. Then they shut their eyes, create a human knot. Once the knot is detangled, they again around in circle explaining how they are connected to the subject on their right.

**125–135 min: Reflection, Questions & Next Steps**

- Quick round: "What's one fact you want to tell your family?"
- Introduce next session

# SESSION 2: HOW WE INFLUENCE THE OCEAN?

*From virtual exploration or real-world investigation to creative action and advocacy.*

1. Bring me to the Sea (field visit or virtual visit)
2. Hear my voice (imagine the future of the sea)

## Timeline & Activities

### 0–10 min: Welcome Back & Recap

- Review main points and discoveries from Session 1.
- Encourage children to share ocean facts with family/friends ("What did you teach someone at home?").

### 10–20 min: Setting the Mission – Becoming Ocean Protectors

- Frame today's challenge: "We're going to see the ocean up close. You'll be its eyes, and its voice!"

### 20–80 min: Bring Me to the Sea – Field or Virtual Experience

### *A. Field Visit to an MPA, the Coast, Aquarium, or Marine Lab*

- Orientation: "What should we look and listen for today?"
- Safety rules.
- Nature Discovery Walk:
  - Species ID (with guidebook or worksheet),
  - Habitat observation
  - List of threats spotted (litter, boats, etc.).
  - Reflection: "How do you feel being here? Who else shares this home?"
- Mini Stewardship Task:
  - Hands-on clean-up or microplastic hunt, if appropriate.
  - "What does the trash tell you about people and nature?"

### *B. Virtual VR/Multimedia Marine Exploration*

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- Use VR headsets, 360° videos, or interactive digital tours, multimedia, inspirational movies.
- Spotlight visits to different habitats/protection levels:
  - Pause at each change: "What's different here? What do you hear/see?"
- Mini tasks: Match a creature to its habitat, guess their role, note threats.

### 80 – 95 min: Meet a Marine Expert/Fisherman/Manager/Citizen Scientists

- Give children the floor to ask questions about the work being done in the area they visited/they saw
- If possible, have a guest from the MPA visited (a manager, researcher, ...), or online guest

### 95 – 110 min: Group Reflection & Debrief (15 min):

- "What surprised you most?"
- "What would you want to change or protect?"
- "What have we learned today?" "How do people help or hurt the sea?"
- List good habits or actions for ocean stewardship (e.g. using less plastic, beach clean-ups, sharing knowledge, citizen science).

### 110–130 min: Hear My Voice! – Messages to the Future

- Creative activity where they imagine the future of the sea. They will be invited to create their own messages what kind of ocean they want to see when they grow up - through short messages or storytelling.
- Creative Challenge: Each child writes/draws/films a "message to the sea" for their future self or local decision-makers.
- Possible formats: Postcards, posters, group mural, audio/video messages.
- Prompt: "What kind of ocean do you want in 20 years? What must we do, today, to make it real?"
- Sharing:
  - Children present or display their creations.

  o   Collect for exhibit at school, local centre, or community event.

## 130–135 min: Programme Celebration and Evaluation

- Distribute evaluation questionnaire for participants to fill in

- Congratulate participants: "You are now MAPA ambassadors!"

- Distribute certificates/stickers.

- Encourage sharing what they learned and created with their families/community.

## Tips for Educators

- Use storytelling, simple scientific language, and questions that invite wonder.

- Encourage participants to observe, experiment, and creatively express their discoveries.

- Foster curiosity: "What would you …?"

- Make space for emotion and connection