



PERSEUS@School

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Name of project : Ocean planet - *One globe, One ocean*

PERSEUS@School, PERSEUS@Art, PERSEUS@Society

PESREUS@SCHOOL

The goal

Prepare students to think and act as well-informed citizens concerned with the marine ecosystems and how they are affected by human activities in the Mediterranean and Black Sea societies.

Most importantly, PERSEUS will create “**school partnerships**” and provide them with the ability to help scientist protect our seas. This will establish a “communication bridge” interconnecting schools and marine science. The “next day” will extend the bridge across society and cultures.

PERSEUS “**school partnerships**” is the key to developing schools’ European/international dimension in voicing schools’ opinion in protecting the marine environment.

Key words

- develop an understanding as to why our seas - Mediterranean and Black Sea - are important
- Learn how we can protect them
- Increase awareness
- Connecting cultures

PERSEUS will provide schools and school partnerships with all the necessary scientific information, advice and online educational material to assist them in the course. Scientists can ‘adopt’ a school, provide guidance and attend to their queries. They will be their own attending scientist.

Short description

The aim is to help and enhance education for SES stewardship in schools. It draws on the experiences of schools working with marine scientists in an international environment to create a powerful **interactive learning experience**. Education for SES stewardship is about equipping children for the world they will live in as adults. Educators along with scientists have a role in helping children to acquire the understanding and skills to live and work as effective and responsible citizens.

The courses will give students an opportunity to explore similarities and differences between schools and nationalities, while simultaneously creating awareness of other young people’s reality in a captivating way. Above all, PERSEUS@School will allow children to use their imagination and knowledge provided by PERSEUS scientists, in order to think and act about the marine environment and its protection in an interactive, appealing and imaginative way.



School can participate in:

Competitions – Sea Adventures at schools
Jelly and Litter watch - Young scientists

and can supplement their involvement through ‘additional’ activities



Sea adventures at schools

Enjoy clean seas by 2020 education

Levels: Kindergarten schools (4 – 6 years old), Elementary schools (6-12 years old) - Middle schools (12-15 years old) - High schools (15-18 years old)

Example of the competition can be found

<http://www.youtube.com/watch?v=igfiwfpj6b4&feature=related>

and will be based on the experience of SESAME project.

Time frame:

1st phase: January 2013 – September 2013: Preparation phase (selection of schools, material, website etc)

2nd phase: September 2013 – June 2014, Pilot programme Greece

3rd phase: January 2014- August 2014, Preparation in all countries (school call, identification and selection)

4th phase: September 2014 – June 2015, Implementation in all countries

Final Event: December 2015

School partnership

Schools may participate individually, yet the real added value will be to create school partnerships. Schools can be selected and networked by the local Centres for Environmental Education (e.g. ΚΠΕ Αργυρούπολης και ΚΠΕ Δραπετσώνας). The involvement of such centres is valuable since they are specialising in educating schools on environmental aspects. PERSEUS can train pupils on marine protection and use these centres as focal points to train schools in their area. During the 3rd and 4th phases of the program, school partnerships will be formed across countries rather than only at national level.

1st Phase: Preparation phase

Selection of schools (7 - 8 schools around Gulf of Saronikos). Essential condition for the contacts to coordinate action with Centres for Environmental Education (ΚΠΕ).

Configuration of the relevant site section: perseus@school. Preparation of printed material which will be distributed to the teachers and the children. Educational material and relatively links where schools can find information and assistance for their work



2nd Phase/Pilot programme- Greece

1. Kindergarten schools (4 – 6 years old)

Short description: Dive into the Sea.

Kindergarten classes are a *challenging* audience. The KIDS PROGRAMME will run in an interactive manner. Kids are asked questions about their knowledge of the marine environment and are encouraged to ask questions back. Different methods like role playing, crafts and activities will be used to establish a form of dialogue, to understand HOW CHILDREN SEE RESEARCH, and develop ways to transfer KNOWLEDGE more effectively.

Theme – Lilliputian researchers or marine science in Lilliput or Lilliputian Marine scientists

2. Elementary schools (6-12 years old)

Short description: Promote science in a simple way that will stimulate kids to understand and begin exploring the sea around them.

Theme 1 – **Jellies Experience**

Students can use jelly related on line material, videos etc or even webcams on jelly displays in Cretaquarium and other aquaria

- *How do jellies move in the ocean?* Ask the students to observe a jelly for 30 seconds. Have them share what they see with another person in the group? Ask the students to notice and write what body parts on their jelly are moving.
- *Jellies come in all different shapes, sizes and colors.* Ask the students to see how many different shapes they can see on the jellies.
- *Ask the student to find a jelly:*

Smaller than their fist.

Bigger than their hand.

Longer than their arm.

- *See if your group can find jellies in the colors below:*

Blue - yellow - red- transparent

Theme 2 – **Plastics in the Water Column**

What happens when plastics enter the ocean? Students explore the density and buoyancy of different plastics. They then predict how plastics affect the marine food web and come up with actions to reduce marine debris.

Theme 3 – **Explore ocean habitats**

- *Imagine that you are an explorer and scientist who studies ocean habitats.* You have to make a plan before you go. Check the ocean habitat you would like to study.



Habitats: Rocky beach - sea grass bed - sandy beach -open Ocean

- Use your library and the internet to research your habitat. *Draw a picture of the habitat and the plants and animals that live in it in the space.*
- *Write a paragraph about the habitat.* Your teacher will guide you on how to write your text.

Theme 4 – **Protect the animals**

Choose five animals, learn their “life stories” and propose how we can protect them. Find two ways they can help protect this animal and its habitat.

3. Middle schools (12 -15 years old)

Short description: Our goal is to integrate science, mathematics, art and languages and create a “discovering unit” for the ocean of tomorrow. Students will learn about the ocean by observing/studying marine animal adaptation and diversity. They will thus begin to develop a sense of stewardship for the seas and the animals that live within these.

Themes

1. *Name four marine animals and describe one specific feature of each. Discuss how this is related to it's way and place of living in the sea*
2. *Demonstrate the swimming or walking behavior of a marine animal. Name some fish species that can walk on the sea bottom.*
3. *Describe a difference between how baleen and other whales eat.*
4. *Discuss the ocean habitats and the animals and plants that live there (Where they live, why, how they feed etc)*
6. *Discuss how human activities affect marine animals.*
7. *Share learning experience with family and friends.*

Make an integrated presentation (ppt) of the themes you have investigated and the outcome of your ‘research’

4. High School. Classes from international schools

Short description: Prepare the implementation of your ‘own’ Marine Strategy for achieving clean Mediterranean and the Black seas. My sea, past, present and the future. How might it look in 20 years time? How can I protect it?

Theme: **Clean Seas by 2020 ocean world**
Implementation of our Ocean of Tomorrow

Class proposal will be evaluated and will eventually reach the scientific community, the local authorities and the EU parliament. Schools will be part of the project, assist and work with the scientists and have a say in protecting our seas.



3rd phase/ 8 months preparation in all countries

Evaluation of the results of the 1st pilot phase. Based on that, the plan will be expanded to cover school partnerships across the Mediterranean and the Black Sea. It is envisaged that at least Greece, Italy, Spain and Bulgaria will participate. Teachers will be trained and provided with the necessary material to run the courses. The added value will be to have school partnerships with multinational members rather than keeping them at national level.

4th Phase

Implementation of PERSEUS@school across SES partner countries.

Final Event 2015

During the final conference of PERSEUS the school that has been evaluated first and awarded the:

Clean Seas by 2020

Implementation of our Ocean of Tomorrow

will be presented at the EU parliament.

Prizes

Award prizes can be set to encourage and reward participation. In addition to the presentation during the Final Event, an award/prize can be a trip/visit to their local or national or even in aquaria in other countries (this prize can also be a result of a draw to avoid competition). 'My' scientist (member of PERSEUS consortium) should also provide visits/events to their Institutes



Jellyfish Spotting & Litter Watch

The 'Jellyfish Spotting' & 'Litter Watch campaign' rely on "citizen scientists" to record sightings of jellyfish and litter at the beach, take a photo and send it by e-mail or post it on the PERSEUS website. A smart phone application will also be developed. Incoming information, will be put on a GIS database and the distribution of jellyfish and litter can be viewed from the "Jellyfish and Litter Spotting" website.

School children can join the Jellyfish Spotting' & Litter Watch campaign and become "young citizen-scientists'. In scientific terms, schools will help, scientists monitor the changes in jellyfish migration patterns and learn more about the type and amount of litter that is floating or being washed up on shorelines.

Schools can be equipped with tablet computers to connect to the applications and the PERSEUS website and become part of the PERSEUS on line community.

Additional activities & events

- PERSEUS@school Banner. The school partnership can create a colorful multilingual banner where kids display in their hand writing and their language vivid messages / advice for the oceans of tomorrow to the rest of the society and politicians in particular. PERSEUS will help them to draw and print it . The banner will be set in the coastal areas where the schools will be active and accompany all school activities.
- Message in a box. Schools will make and exchange 'message in a box' parcels. The parcels will contain items/materials that will represent the main threats to their local marine environment and a message on how we can protect it. By choosing the items to put in, they will learn about 'how others see us' , appreciate the differences and similarities between people, places, environments, economies and cultures .
- Message in a bottle. Schools can set their bottles to sail the seas along with their message and contact details.
- Establish PERSEUS@school web club / forum open to all interested students.
- Planned use of internet resources sites and information generated by credible websites to update and enrich curricula and lesson plans.
- What is your family's 'ocean IQ'?. This is a take – home activity that students can complete with their parents. It will give your students the chance to share what they recently learned about the ocean with their families.
- *Science quiz night.* Quality time where parents and friends of the schools check their marine knowledge and discuss with the scientists about their seas. Kids can make the quiz questions or participate with their parents
- PERSEUS@ART



PERSEUS@School - website

Visit the PERSEUS@School website and join our adventure



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