**Learning scenario with MARG**

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| PART 1: General information | | |
| Title of the scenario: | Environmentalists conserve the EcoAegean | |
| Keywords: | Sea, overfishing, invasive species, pollution, biological cleaning, endangered species | |
| Name(s) of the scenario’s creator(s): | Spyros Spyrou | |
| [Creative Commons License](https://creativecommons.org/licenses/?lang=en) of the scenario: | Attribution | Attribution-NoDerivs |
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| Attribution-NonCommercial-ShareAlike | Attribution-NonCommercial-  NoDerivs |
| Estimated duration of the scenario’s activities: | 120 minutes | |
| Age range of learners: | 9-12 years old | |
| Learners’ special characteristics: (i.e. immigrants, special needs) | None | |
| Learning subject based on your curriculum to which the scenario relates: | Environmental education | |
| To which Sustainable Development Goal (s) does the scenario relate to : (highlight it/them) | { } No Poverty | { } Industry, Innovation and infrastructure |
| { } Zero Hunger | { } Reduced Inequalities |
| { } Good Health and Well-Being | { } Sustainable Cities and Communities |
| { } Quality Education | { } Responsible Consumption and Production |
| { } Gender Equality | { } Climate Action |
| { } Clean Water and Sanitation | {X} Life Below Water |
| { } Affordable and Clean Energy | {X} Life On Land |
| { } Decent Work and Economic Growth | { } Peace, Justice and Strong Institutions |
|  | { } Partnerships For The Goals |
| Which 21st century skill(s) does the scenario involve:  (highlight it/them) | {X} Information and data literacy | {X} Critical thinking |
| {X} Communication | { } Active citizenship |
| {X} Collaboration | { } Respect for differences |
| {X} Problem solving |  |

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| PART 2: Learning outcomes of the scenario | |
| In terms of knowledge | The learner knows and understands:   * How overfishing affects marine ecosystems. * How climate change drives foreign invasive species. * What causes plastic pollution of shores and seas. * What is biological cleaning and its uses. * Which are the endangered species of the Rhodes Sea (seal). |
| In terms of skills | The learner is able to:   * Adopt positive attitudes towards preserving Life below water and life on land near the sea. |
| In terms of competences | The learner:   * proposes solutions for improving the quality of life below water and land near the sea in a sustainable way. * proposes solutions concerning their social environment |

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| PART 3: Description of the game | |
| Narrative description of the game plot: | The game will take place near a hotel on the beach of Kolimbia of Rhodes. Α hotel owner based near the beach introduces the players who are environmentalists specializing in marine ecosystems - to the problem. The players are told that not many tourists came to the island this year. Μany of them complained about the water quality and that the natural environment is not as it was the year before. After the presentation of the problem, a map will be presented to the environmentalists with 4 points of interest located on the beach of Kolimbia. Players must visit the specific locations, interact with virtual character and gather all the necessary clues and provide answers for the situation and proposing solutions for the problem. Also, a piece of a blue flag -sign of a healthy beach environment will appear at the end of each scene, if players meet the location’s objective. |
| Game objectives: | 1. Players - environmentalists must gather all the necessary clues from the specific locations and provide answers for the situation and proposing solutions for the problem.  2. Also, collect all the pieces of a blue flag -sign of a healthy beach environment that will appear at the end of each scene by saving them on their device. |
| Does the scenario refer to a specific location? If yes, specify. If no, write everywhere. | Yes, beach of Kolimbia at Rhodes Island |
| Characters: | Hotel owner, tavern owner, fisherman, seagull, seal |
| Scenes: | The game consists of five scenes/places of interest:  (1) Tavern on the beach.  (2) Boat with fisherman at sea.  (3) Seals at the beach  (4) Seagull at the beach |
| Type of work: Individual/ collaboration | Students play the game in teams of three |
| Does the game involve different player roles? If yes, specify. | No |

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| PART 4: Description of the learning scenario activities | | |
|  | **Learning settings** | **Estimated time** |
| Before the game: | Students are given instructions about how to use mobile devices and how to play the MARG. They are divided in team of three players. | 10΄ |
| During the game: | All the teams will be transferred to the place where the game will start, ie to the beach of Kolimbia with the class teacher. After the hotelier presents the problematic situation, the four places of interest will appear on the map and students will choose whichever they want to start the game. The four locations-scenes in particular:  Scene 1: Tavern on the beach: A tavern owner will be waiting for them at the tavern. Environmentalists will conduct an interview asking the tavern owner about the problem of biological cleaning. The tavern owner will provide the answers via the augmented information that appears on the screen of their tablet. Players - environmentalists will collect the information by filling in a specially designed worksheet and by collecting the piece of a blue flag -sign that the tavern owner will give them.  Scene 2: Fisherman's boat: Players – environmentalists will conduct an interview asking the fisherman about the problems of foreign invasive species and overfishing. The fisherman will provide the answers via the augmented information (video and pictures) that appears on the screen of their tablet. Environmentalists will collect the information by filling in a specially designed worksheet and by collecting the piece of a blue flag -sign that the fisherman will give them.  Scene 3: Seals on the beach: will analyze the problem of non-protection of endangered marine species by focusing on seals with a special video. Environmentalists will collect the information by filling in a specially designed worksheet and by collecting the piece of a blue flag -sign that the seal will give them.  Scene 4: Seagull on the beach: will analyze the problem of plastic pollution of the coasts and seas via a video. Environmentalists will collect the information by filling in a specially designed worksheet and by collecting the piece of a blue flag -sign that the seagull will give them. | 60΄ |
| After the game: | Players with the information they have gathered will decide what they will create to provide the solution to the problems analyzed in all scenes. They create videos, posters, collages. | 50΄ |
|  | **Total**: | 120΄ |

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| PART 5: Prerequisite knowledge and supportive material | |
| Learners’ prerequisite knowledge: | Basic knowledge of mobile device usage, basic knowledge about environmental problems related to life below water. |
| Infrastructure/ equipment needed for implementing the scenario: | Mobile devices with data-internet connectivity |
| Other learning resources needed: | Under configuration |

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| PART 6: Approach towards the assessment of the learning outcomes | |
| Learners’ assessment approach: | Digital quizzes  Questionnaires |