



Bu proje Avrupa Birliđi tarafından finanse edilmektedir.
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Learning about the

Loggerhead Sea Turtle



INTRODUCTION

The project plan is based on the inquiry-based learning, emphasizing on experiential aspects of the educational procedures. The teacher will introduce the students to the subject of the **Loggerhead Sea Turtle (*Caretta caretta*)**, through stories, videos, or informative sites. The students will then conduct a research in order to explore the issue further. **They work in groups and then they exchange what they have learnt** by swapping teammates (jigsaw cooperative learning strategy). Finally, students present the outcome of the project to their peers, other classes, or the community outside school. Students may also engage to a game about the storks, which is designed in a wholesome approach.

OBJECTIVES

- To familiarize students with endangered animal species and their ecosystems
- To develop a sense of international citizenship on environmental issues
- To promote values and behavioural change
- To educate for sustainability
- To raise awareness about the impact of human activities on the life of the Loggerhead Sea Turtle
- To raise awareness about Marine/Coast Theme (ECO Schools Themes), Life Below Water (Sustainable Development Goal 14) and Climate Action (Sustainable Development Goal 13).

DURATION:

5-6 class periods (Depending on the number of activities chosen to be carried out.)

RESOURCES

- KWL Chart (Know - Want to know - Learnt)
- Videos and Pictures related to the Loggerhead Sea Turtle (description, habitat, behaviour, food, threats)
- Story (Turtle Bay - Journeys Book, etc.), Literature books (e.g. «Πού πας χελωνάκι», «Τα χελωνάκια του Παύλου»)
- Research Handout/ Booklet/ Questionnaire
- Reading Comprehension - Vocabulary Handouts (link to the curriculum)
- Appropriate material to construct the habitat of a sea turtle (e.g. construction paper, sand, clay, colors, etc.)

NOTE TAKING CARD



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RESOURCE 1

K**W****L**

What do I already know?

What do I want to know?

What I learnt?

What do I already know?	What do I want to know?	What I learnt?

Stage 1: Warm up – Tap on Prior Knowledge

The students watch short videos or look at pictures of the Loggerhead Sea Turtle and the teacher asks them what they know about the species. The teacher writes on the board the students' answers. Then the teacher asks the students what they want to learn about the species, writes down the questions and splits them into groups (KWL Chart - Know | Want to know | Learnt).

The students read the story "Turtle Bay" (or any other story that relates to the species). They answer reading comprehension questions and work on the story's vocabulary (link to the curriculum). The students talk about the story elements and the character analysis through the story.

Stage 2: Research

The students conduct a research to fill in the information in a handout. The students can use a variety of sources such as:

- Internet sites (e.g. <https://www.wwf.gr/endangered-species/caretta>)
- Library books
- Speeches given by experts (e.g. a visit to Archelon, an NGO protecting the sea turtles)

Alternatively, research could take place in the following forms:

ACTIVITY

This activity is meant to give students information about the life of the Loggerhead Sea Turtle. It is based on the jigsaw cooperative learning strategy.

Objectives:

After this activity, students should be aware of:

- The characteristics of the *Caretta caretta*
- Its environment and its diet
- Its reproductive behaviour
- Its life cycle

Duration

2 class periods

Materials

- Pencils or pen
- Note taking paper for a group; the teacher will divide into 4 (**Resource 1**)
- Information cards for expert groups; teacher will divide into 6 and put on different tables (**Resource 2**)
- Mind map activity sheet (**Resource 3**)
- Test paper (**Resource 4**)

The Loggerhead Sea Turtle

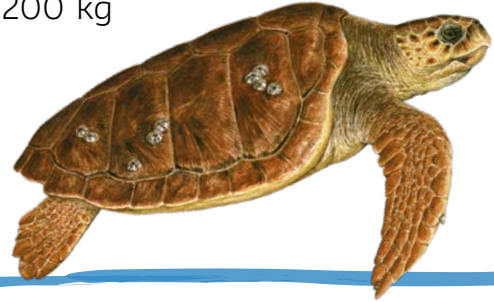
Where does it lay its eggs

1. Female turtles dig holes on quiet and remote beaches and lay their eggs there.
2. Once they lay their eggs, they return back to the sea.

The Loggerhead Sea Turtle

Physical appearance

1. A large reptile
2. Colour Brown/grey
3. Hard-shelled
4. 70-110 cm long
5. 200 kg



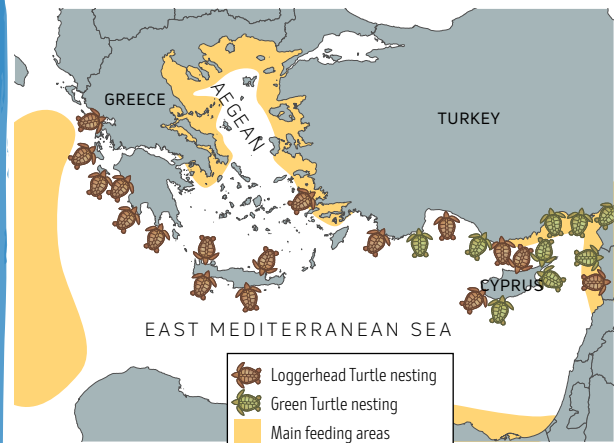
The Loggerhead Sea Turtle

Eggs and temperature

1. 50-120 eggs are laid.
2. Their shell is soft and they look like ping pong balls.
3. The incubation temperature is between 26 and 32°C
4. At lower temperatures, male turtles are born. At higher, female turtles are born.

The Loggerhead Sea Turtle

Where does it live



The Loggerhead Sea Turtle

Incubation time

1. The incubation lasts for about 50 days.
2. The little turtles hatch out of their eggs, dig their ways out of the nest and immediately head for the sea trying to reach it as soon as possible.

The Loggerhead Sea Turtle

Diet

1. Omnivorous animal
2. Marine invertebrates
3. Jellyfish
4. Sea grass



Description:

Step 1o

The teacher divides students into 6 different groups, each of which consists of 4 students. Each group will be an expert in a particular subject about the Loggerhead Sea Turtle and make use of the information cards (**Resource 2**), along with their team mates. During the discussion they take some notes on the note taking cards (**Resource 1**).

(Each color represents a different group of experts)



Step 2o

Once the students have gathered the information and made notes, it's time to change places. They are rearranged in a way that each desk hosts one different expert. This way, four new groups are formed, where each group includes 6 students from 6 different expert groups.



Step 3o

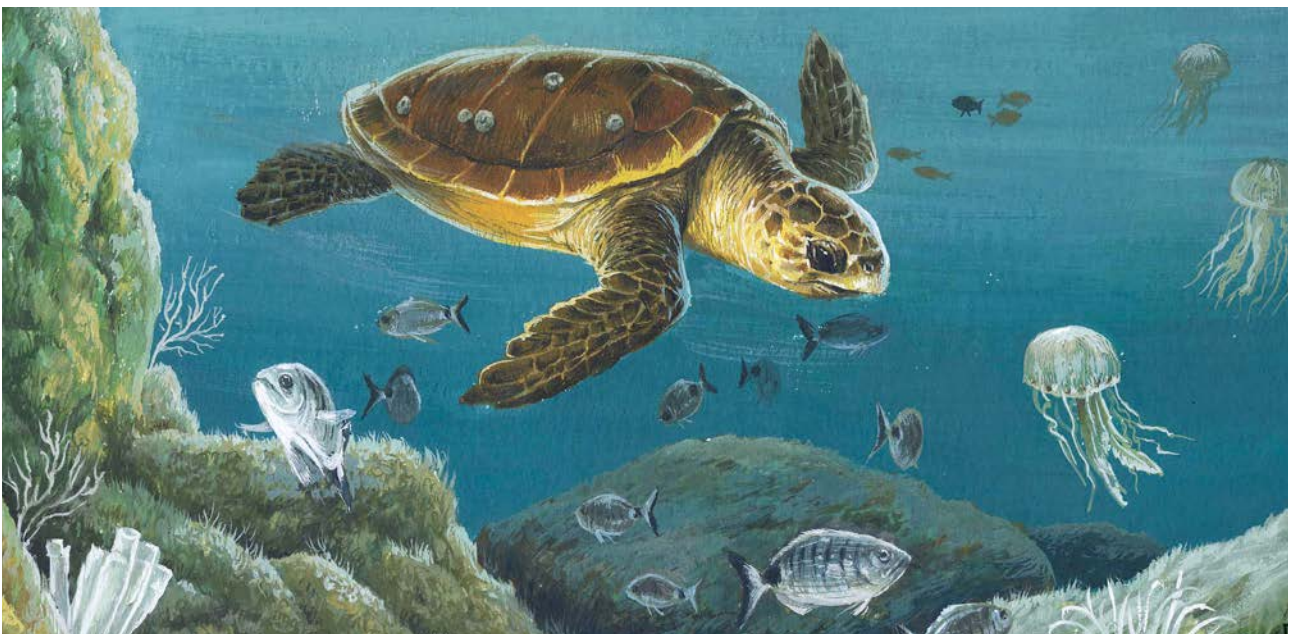
Now in the new group, the students complete a mind map activity sheet (**Resource 3**) making use of the notes they had taken before.

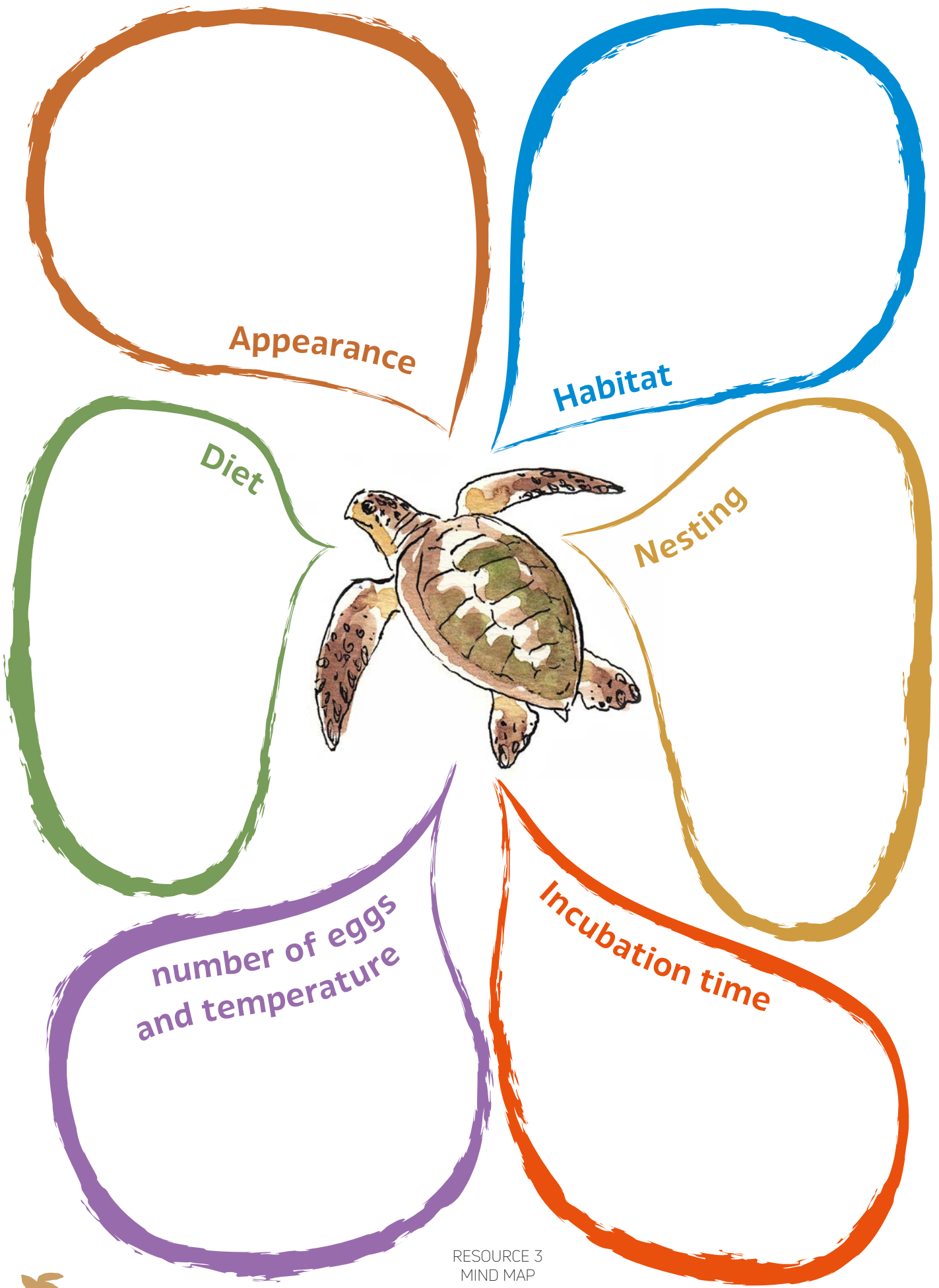
Step 4o

The mind map activity sheets are evaluated through a class discussion.

Step 5o

A quiz (**Resource 4**) is given to the students in order to get a feedback about what they have learnt. The teacher may also instruct students to brainstorm on ideas about how can we help the Loggerhead Sea Turtle. Using a cardboard that looks like a Loggerhead Sea Turtle shell (see **Resource 8**), students write or draw on the different circles all the different information they have gathered.





Appearance

Habitat

Nesting

Incubation time

number of eggs
and temperature

Diet

Test on the Loggerhead Sea Turtle

(Circle the right answer)

STUDENT NAME:

.....

1. Is it a **big** or a **small** animal?

.....

2. Is it a **reptile** or a **fish**?

.....

3. Does it give birth to **baby turtles** or **eggs**?

.....

4. Does it travel a **small** or **long** distance to lay its eggs?

.....

5. The sex of the hatchlings that will come out of the eggs is
predetermined or **it depends on the temperature**?

.....

6. Is the incubation time **more** or **less** than a month?

.....

RESOURCE 4 - QUIZ

Stage 3o: Presentation of the research

Students present the results to their classmates using any method they want. They can:

- Make a poster (linked to Art subject)
- Make a PowerPoint presentation (linked to IT subject)
- Use Diagrams
- Make a board game
- Write an article and post it on social media or in a school newspaper
- Organize an exhibition event to let other students know about the Loggerhead Sea Turtle

When it comes to endangered species, it is important to stress the factor threats to animals. The teacher directs the research to the threats the species face and the possible solutions that may resolve the problem. The students exchange ideas and come up with actions. The World Café can be used as a method of making everyone involved. They vote on the solutions they can try at school.

Some suggestions may be:

- An action of informing the whole school community about the species focusing on the threats so that the use of plastic in the school can be reduced (e.g. use of flasks, no straws.)
- The adoption of a Loggerhead Sea Turtle through an NGO
- An article with the results of the research published in the local newspaper or the Eco Schools website (<https://www.ecoschools.global/>) or the Young Reporters for the Environment website (<https://www.yre.global/>)
- A leaflet to inform other schools or the neighborhood
- Make a video as reporters
- Make an animated story, an interactive game, a song or a poem they share with the whole school
- Organize a fundraising event for the protection of the Loggerhead Sea Turtle and invite all stakeholders (with kinesthetic games, art exhibition e.g. on the habitat, theatre plays, or skits)
- Organize an exhibition



EVALUATION

The following board game can be used as an activity that will improve the student's decision-making ability about saving the Loggerhead Sea Turtle, but will also give a feedback to the teacher about what the students have learnt.

Board Game

Introduction

This activity will improve the student's decision-making ability about saving the Loggerhead Sea Turtle.

Objectives

Students should:

- Be aware of the threats to the species,
- Estimate the possibility of it becoming extinct if actions for its preservation are not taken
- Be able to suggest possible solutions to the problem and take action

Duration

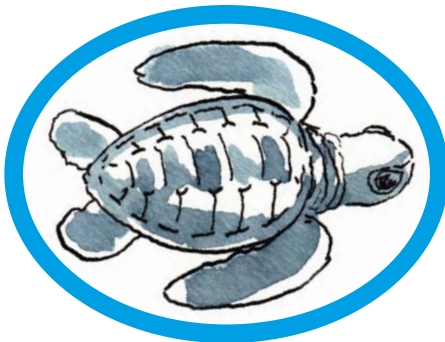
1 class period

Materials

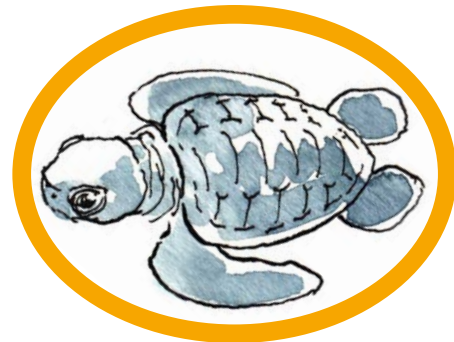
- Student writing material including notebooks and pens
- A table game about life cycle of the Loggerhead Sea Turtle (**Resource 6**)
- Question cards (**Resource 7**)
- Dice

Description

To play the game in class, students may be divided into groups, or take part as a whole, instead. There are two baby Loggerhead Sea Turtles to be used as tokens, following the steps on the board (**Resource 5**). Students use the dice to move their token. When their roll brings them at a numbered station, they take a question card. If they give a wrong answer, they have to jump back. If they give a right answer, they move forward. Once the game is finished, the process will be evaluated through class discussion.



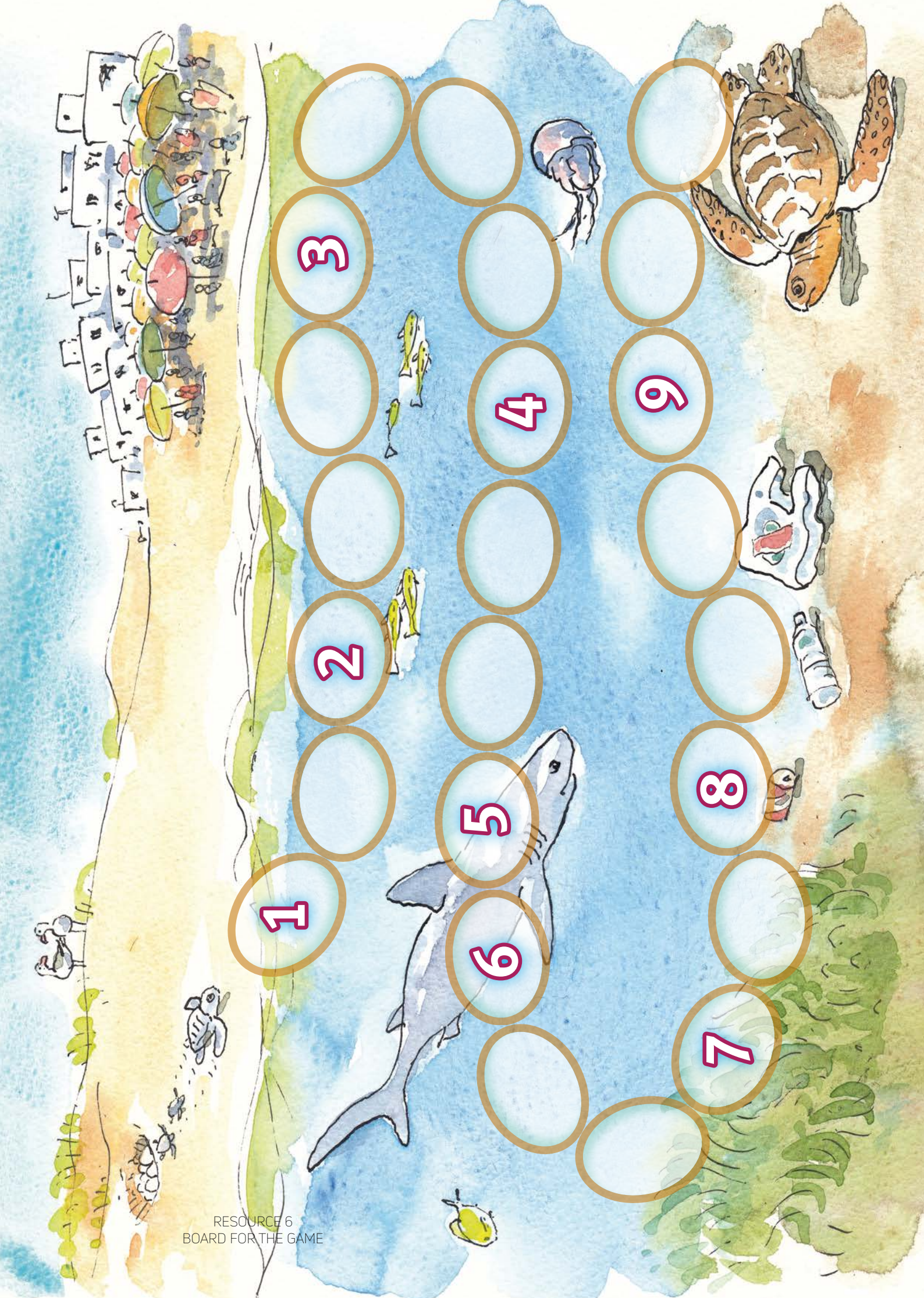
FOR AN A3
SIZED BOARD



FOR AN A4
SIZED BOARD



RESOURCE 5
BOARD GAME TOKENS



1

2

3

5

6

4

9

8

7

**Jump
2 steps**

What are the possible threats for baby turtles?

Answer: Seagulls, crabs and disorientation

**Jump
1 step**

How do they find their way to the sea?

Answer: They follow the moonlight

**Jump
3 steps**

Will they survive once they get into the sea?

Answer: Not necessarily

**Jump
4 steps**

Do the city lights disturb them?
How?

Answer: Yes, because they follow them and get killed

**Jump
2 steps**

Do they swim when they reach the water?

Answer: Yes, if they manage to avoid the threats on the way

**Jump
4 steps**

What are the top threats for their future?

Answer: Climate change and loss of nesting beaches

**Jump
1 step**

Do the turtles return to the beach they were born?

Answer: Yes, they do

**Jump
2 steps**

What are the possible threats in the water;

Answer: Fishing nets, motor boats and plastic bags for adults. For the young turtles big fishes is the main threat.

**Jump
2 steps**

Is the mother turtle along with her babies?

Answer: No, she's gone back to the sea

**Jump
3 steps**

At what age can they reproduce?

Answer: At the age of 15-30 years



PROJECT PARTNERS

Hellenic Society for the Protection of Nature (HSPN)

Founded in 1951 in Greece, the HSPN is the oldest environmental organization in Greece and acts as a non-profit association. The HSPN represents in Greece the Foundation for Environmental Education (FEE), a global educational organization, and operates all five of its international Programmes for environmental education and sustainable management: “Eco-Schools”, “Young Reporters for the Environment”, “Learning about Forests”, “Blue Flag” and “Green Key”. At present, HSPN is active in five main areas: Environmental Interventions, Nature Conservation, Environmental Education, Sustainable Management in the Tourism Sector, Public Awareness Raising. For more information, visit: <http://eepf.gr/en>

Foundation for Environmental Education in Turkey (TÜRÇEV - Türkiye Çevre Eğitim Vakfı)

Founded in 1993, TÜRÇEV operates FEE's programmes in Turkey. TÜRÇEV initiated its action with the “Blue Flag” in 1993 and then joined other FEE Programmes: “Young Reporters for the Environment” and “Eco-Schools” in 1995, “Learning about Forests” in 2004 and “Green Key” in 2011. TÜRÇEV's central office is in Ankara and branch offices are in Antalya, Bodrum (Muğla) and İzmir. For more information, visit: <http://www.turcev.org.tr>

ABOUT THE PROJECT

YUNUS - Theoretical Approaches and Practical Implementations in Environmental Education

This project is implemented within the framework of “Civil Society Dialogue between EU and Turkey - Grant Scheme V” (CSD-V). The overall objective of the CSD Programme is to bring together civil society organizations from Turkey and the EU around common topics, so they can exchange knowledge and experience, and build a sustained dialogue between them. Specific objectives of the YUNUS project include the establishment of a sustainable network for cooperation of Greek and Turkish stakeholders in the field of Education, as well as the promotion of the EU legislation, policies and practices to the society of Turkey. The project includes the development of common environmental education programmes focusing on three iconic species

present in both countries: The **Mediterranean Monk Seal** (*Monachus monachus*); the **Loggerhead Sea Turtle** (*Caretta caretta*) and the **White Stork** (*Ciconia ciconia*). In addition, a website and three short movies will act complementarily, to provide necessary information and knowledge to teachers and other interested parties.

The HSPN is the coordinator of the project, responsible for the overall implementation. TÜRÇEV, as the second partner, is responsible for a number of activities within the project. The YUNUS project started on April 1st 2019 and has a duration of 24 months.

As part of the activities, teachers from both countries participated in a summer school held in Alonissos, Greece (July 10-15, 2019), the outcome of which was the creation of the three environmental education programmes to be implemented in both Greek and Turkish schools. The educational material was developed by the participants during the summer school. Firstly, there was pilot implementation at schools in Greece and Turkey during the 2019-2020 school year. After that, experts from HSPN and TÜRÇEV collected the feedback given by the participating teachers and finalised the educational material. This project will lead to continuous and widespread cooperation between the partners and contribute in making new generations more environmentally conscious.

ABOUT THE PROGRAMME

The “Civil Society Dialogue between EU and Turkey” Programme is implemented with the financial support of the EU. In 2006, it was established by the Directorate for EU Affairs and served as a platform for civil society organizations (NGOs) from EU member states and Turkey to meet for common issues and then societies to get to know each other, exchange information and establish a sustainable dialogue between them. The first implementation of the Programme, started in 2008. Civil Society Dialogue between EU and Turkey - Grant Scheme (CSD) was put into practice in the scope of IPA - Instrument for Pre-Accession Assistance. Through this Programme, a total amount of 42.5 million euros was provided to 350 dialogue projects run as partnerships between NGOs from Turkey and EU member or candidate countries. Accepted projects targeted gender equality, education, agriculture, health, food, environment etc. For more information visit <http://siviltoplumdiyalogu.org/>

Writing group: Teachers participating at the summer school of the project

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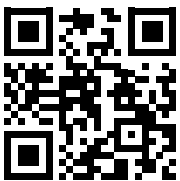
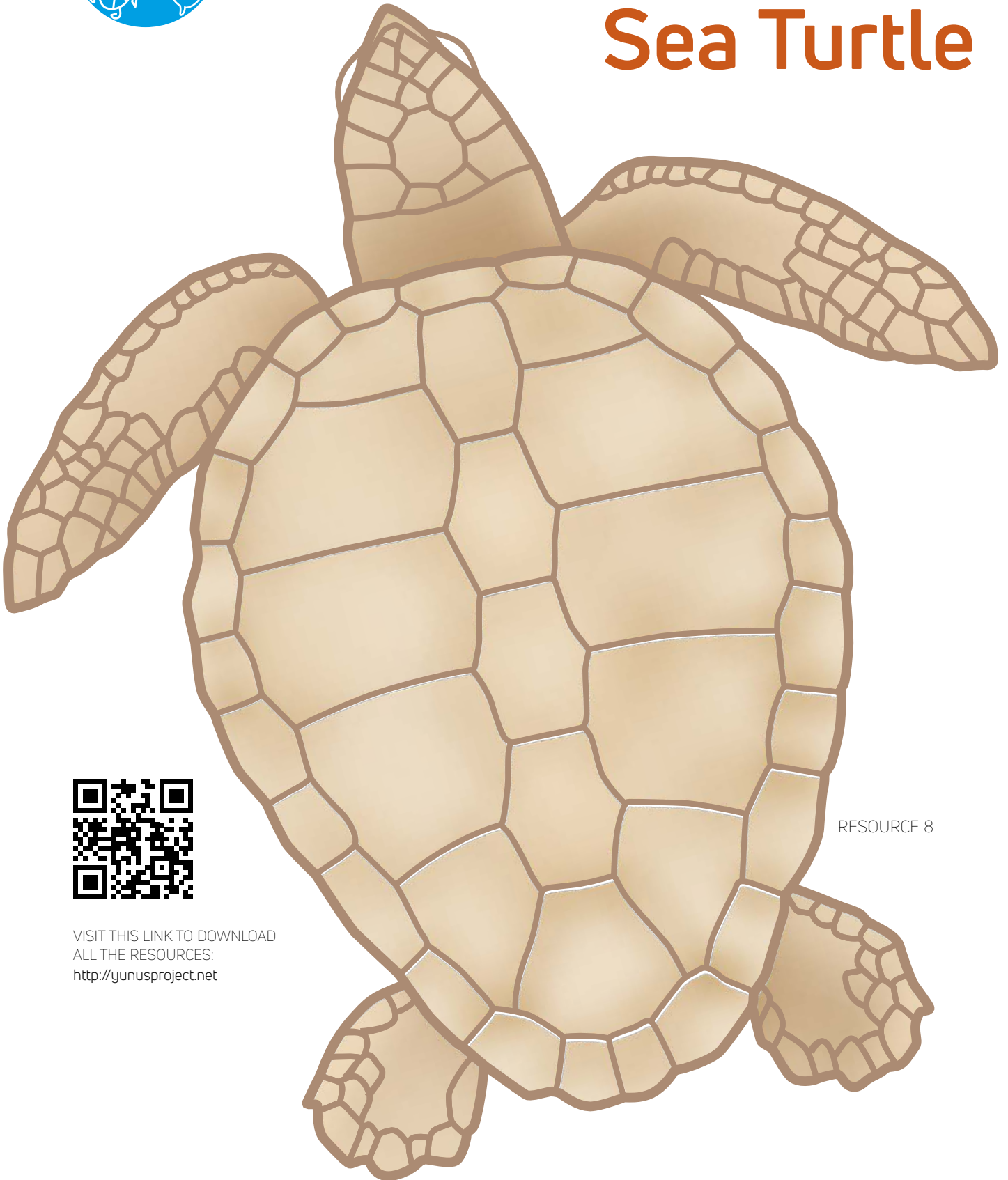
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What we have learnt about the

Loggerhead Sea Turtle



VISIT THIS LINK TO DOWNLOAD
ALL THE RESOURCES:
<http://yunusproject.net>

RESOURCE 8