Teaching
Ocean Sciences issues in Primary School
using Interactive Whiteboard

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This paper presents a teaching suggestion, which utilizing Interactive Whiteboard potentials, aims to students of 4th grade to acquire knowledge on coastal lagoons, which constitute a common type of coastal environment worldwide, as well as to create positive feelings about coastal environments conservation.
The important development of interactive environments of teaching and learning that is observed during the last years, and the educational interactive applications that continuously grow, introduce modern education technology products and offers to the teacher the possibility to actively and educationally engage the use of New Technologies in teaching and learning [1,2].

This teaching suggestion is composed by the teaching of three units, which can be implemented in at least three teaching hours. Students can work in teams of three-four persons. The teaching is performed with a polytropic presentation of clear information, with the utilization of interactive internet applications and the filling up of work sheets [5,6,7].

In the first teaching unit, students discuss and note down in work sheets, with the use of interactive whiteboard, their pre-existing knowledge on issues regarding the basic characteristics of coastal lagoon environment, the biodiversity, functions and values of coastal lagoons, as well as their alterations caused by human activities. Thereafter, through interactive activities, they are dealing with issues and information on the basic abiotic components of the coastal lagoon ecosystem [8,9,]. (Figure 1)
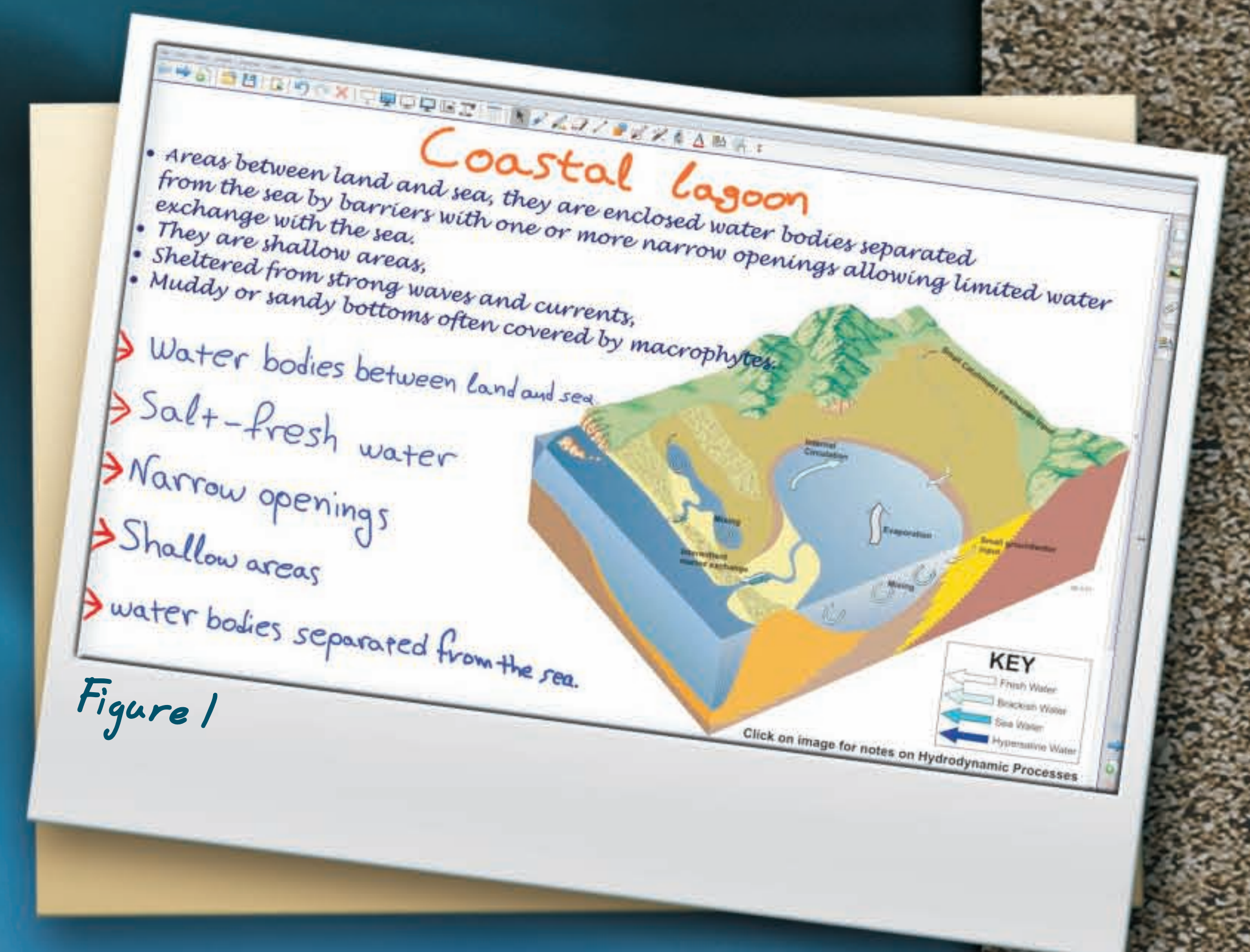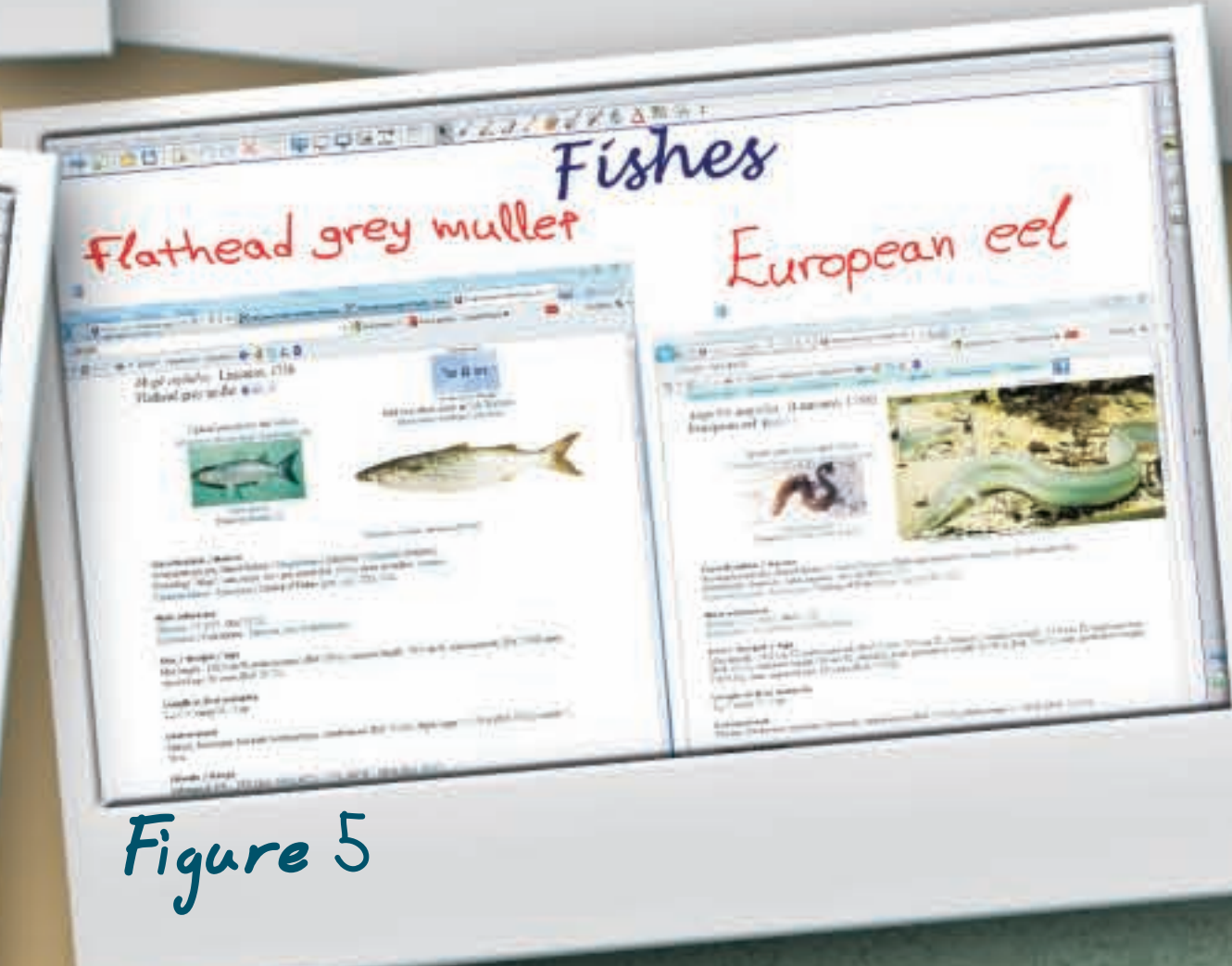

Figure 1

Figure 2

Figure 3

In the second unit, with the varied presentation of information through incorporated software tools of the interactive whiteboard, students get in touch with information concerning morphology, biology and ecology of characteristic species of macroalgae, angiosperms, benthic macroinvertebrates, fish and birds of the lagoon ecosystem, as well as the coastal lagoon food web [10,11]. (Figure 2-5)

Figure 4

Figure 5

Figure 6

In the third teaching unit, students collect information from the internet, discuss and answer questions in work sheets that focus on the multiple natural functions of coastal lagoons and the values arising from these functions for the human being, as well as they note down the problems that coastal lagoons come up against because of human activities. (Figure 6)

At the end of the teaching units, students discuss all together, fill up an electronic work sheet by answering to questions concerning the issues developed and record their suggestions regarding the actions that are necessary for the protection of coastal lagoons.

Summarizing and considering by taking into account that the utilization of new technologies when teaching Sciences has many positive results [12,13,14], it is expected that the application of our teaching suggestion will contribute to the preparation and the gradual shaping of ocean-literate persons. Moreover, by generalizing, it is expected that the proper utilization of new technologies, when teaching Ocean Sciences issues, will contribute to a more efficient development of the Ocean Literacy.

LITERATURE

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