

## MARINE PROTECTED AREA DESIGNATION LESSON PLAN

Grade 7-12

Subject: Biology, General Science, Marine Science

Topic: Marine Protected Areas

Time: 1 double period

Total number of students: \_\_\_\_\_

### Objectives:

1. To assess and determine potential effective Marine Protected Areas (MPAs) in the Bahamas.
2. To list desirable physical, biological, and geological properties for an MPA including critical habitats for key species.
3. To investigate different processes for creating MPAs through the government body of the Bahamas.

### Previous Knowledge:

1. Defined Marine Protected Area
2. List of Bahamas of proposed, designated, and existing MPAs
3. State several important reasons for establishing MPAs

### Introduction:

Create a card for each student that lists one of four categories (Environmentalists [non-government organizations], Local Community, Scientists, Department of Fisheries [Bahamas government]). The largest group should be the "local community". Have each student take a card out of the "hat" and divide them into groups in the classroom according to their category.

Give them five minutes to formulate a statement explaining their position on MPAs in general.

Have a spokesperson from each group read their statement.

### Content:

#### Vocabulary:

**STAKEHOLDER:** An individual or organization with a vested interest in a marine resource.

**ADVISOR:** In this exercise, scientists are acting in an advisory role.

**GOVERNMENT:** The Department of Fisheries represents Bahamian Government

**SUSTAINABILITY:** The ability to use a resource that will maintain a stable population.

**CONSERVATION:** The wise use of natural resources

**PRESERVATION:** Reserving a resource in its natural state and prohibiting any detracting uses (such as fishing or harvesting)

Distribute stakeholder cards to each group. Tell the students that there is a proposed marine protected area for their island. They are invited to a "town hall" meeting to give

input on the location for the MPA. Groups can read and discuss their positions on this issue for 10 minutes.

Call a “town hall” meeting. Spokesperson for each stakeholder group will be asked to present their recommendations for the location. The government official will present first, the floor will be open to the environmentalists and local community. Scientists should be consulted when issues arise regarding specific details on fish populations and habitat being considered.

To end the exercise, Department of Fisheries, after hearing all of the recommendations will make a decision as to where exactly to place the MPA.

Overall, result should be that the local community understands and supports an MPA at their island site. Understanding should include the benefits of MPAs for fisheries sustainability, economic value for sustaining fisheries populations, and overall social, cultural and economic heritage now and in the future.

**Conclusion:**

Have each student list five potential benefits for establishing MPAs. Examples may include:

1. Fisheries populations maintained or growing into the future
2. Increased diving tourism that benefits the economy through creation of tourist and fishing related jobs.
3. Sustainable fishing industry
4. Contribute to the overall health of the marine resources throughout the Bahamas by becoming part of an interrelated network of marine ecosystems.
5. Public awareness and education of the importance of our marine resources / heritage