MANATEE TALES LESSON PLAN

A Conservation Nation Academy Lesson
Please visit www.conservationnation.org/lessons for complete lesson materials including the lesson video, stakeholder roles sheet, and vocabulary list.

GRADES

5-8

TIME REQUIRED

45 minutes

SUMMARY

Put yourself in the place of Conservation Nation grantee, Fátima Ramis, as she examines the complex perspectives and interactions of community members in and around a marine sanctuary in the Dominican Republic. This scenario-based game is designed to help your students analyze evidence on how human actions and attitudes impact the conservation of wildlife and natural resources, and what they can do to protect our planet.

OBJECTIVES

Students will be able to...

- Describe the manatee's ideal habitat.
- Give at least two examples of how human activity is negatively affecting manatees.
- Model a community of stakeholders and how their perspectives shape wildlife conservation decisions.
- Analyze data and evidence to form arguments on how humans and their consumption impact wildlife and natural resources.
- Analyze data and evidence to collaborate and find ways to balance humans' needs and conservation.

- Describe at least one action they can take individually or as a group to help protect manatees.

MATERIALS

Available at www.conservationnation.org/lessons

- Pre-read article, "Saving Manatees in the Dominican Republic" (available at the link or to print in the lesson materials)
- Manatee Tales video
- Stakeholder Role Sheet (this can be printed for students to share in small groups or projected on a screen)
- Vocabulary list

Classroom Setup (optional)

- Arrange seating so students can face each other (debate format).
- Decide in advance which **scenario** you will start with, using the *Scenarios with Role Matches* table below.

NEXT GENERATION SCIENCE STANDARDS

MS-LS2-1: *Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.*

- Students examine manatee habitats, identify resources they need to survive (like seagrass beds), and use scenarios to explore how changes in these resources affect manatee populations.

MS-ESS3-4: *Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.*

- Through stakeholder role-play and debate, students use real-world scenarios to argue how tourism, fishing, boating, and development can impact manatees and marine ecosystems, and propose solutions to balance human needs with conservation.

INSTRUCTIONS

1. **As a class or individually, students read the pre-read article** here: "Saving Manatees in the Dominican Republic" **- 5 minutes**
   This can be done as a homework assignment or as part of the class period.
2. **Watch the video as a class - 8 minutes**
   a. Pause the video when instructed (minute 8.30) for the Mantee Tales Stakeholder Showdown game!
3. **Introduce the game and divide students into two groups - 1 minute** (facing each other, if you have arranged seating in this way)
   a. Explain that students will take on the roles of stakeholders whose lives intersect with the marine sanctuary and manatee conservation.
   b. Their goal is to make evidence-based arguments that reflect their stakeholder's priorities and viewpoints (even if they personally feel differently).
4. **Distribute Stakeholder Role Sheet - 1 minute**
   a. This can be projected on screen or students can share copies in small groups. The goal is for all students to be able to read through their assigned role.
5. **Assign one stakeholder role to each student from the Stakeholder Role Sheet -1 minute**
   a. There are 15 stakeholder roles, each with two perspectives, for a total of 30 roles. If you have fewer students, you can eliminate some stakeholder roles.
   b. Each of the 15 roles have **two perspectives**: *Manatee Protector* and *Resource User*. It is important that each stakeholder role, i.e. restaurant owner, is played by two students, one from the *Manatee Protector* perspective and one from the *Resource User* perspective.
   c. Make sure to assign which perspective students will play for the round (or let them pick for more engagement).
   d. Students using the *Manatee Protector* perspective should sit opposite students playing the *Resource User* perspective.

6. **Introduce the Scenario - 1 minute**

   a. Read one scenario aloud from the ***Scenarios with Role Matches*** table below.

   b. The table helps you identify which roles are most relevant to each scenario using the role match list.

7. **Preparation Time - 1 minute**

   a. Students get 1 minute to review their role and prepare an argument responding to the scenario from their assigned perspective.

   b. Encourage them to use evidence from the video and article.

8. **Debate Rounds - 8 minutes**

   a. Each role's perspective, *Manatee Protectors* and *Resource Users*, **get 30 seconds to present their arguments regarding the scenario**. Teams alternate presenting arguments.

   b. Award 1 point for every strong, evidence-based argument made by each team.

   c. Give bonus points for directly referencing the video or pre-read article.

   d. Repeat steps 6-8 with other 2-3 other scenarios continuing the debate between the two perspectives.

   e. Record points for each round and crown a winning team when time runs out.

9. **Cooperation Challenge - 8 minutes**

   a. After a few rounds of students debating their perspectives, challenge both teams to negotiate a balanced solution for an assigned scenario so that it benefits both manatees and people.

   b. Choose multiple scenarios using the ***Scenarios with Role Matches*** table to have teams work together on possible solutions that meet both human and wildlife needs.

10. **Conclude the Video - 4 minutes)**

a. Show the second half of the *Manatee Tales* video.

11. **Reflection & Manatee Action Pledge - 4 minutes**

a. Conduct a class discussion using the following reflection questions:

- How did stakeholder goals conflict or align?
- Which arguments were most convincing and why?
- How can people's needs and manatee conservation be balanced?

b. Students complete a Manatee Action Pledge: Have each student write down or voice one action they personally commit to that could help protect manatees or other wildlife.

c. Have students finish the exit ticket to complete the lesson.

1. English: https://create.kahoot.it/share/manatee-tales-exit-quiz/95e84380-d022-461e-a43d-5204907f158e
2. Spanish: https://create.kahoot.it/share/manatee-tales-cuestionario-de-salida-espanol/8550630f-59d1-49bc-8233-b957897ed68d

Teacher Tips

- You can rotate roles between scenarios, so students experience multiple perspectives.
- Encourage quieter students by letting them prepare arguments in pairs.
- Use real-time scoring to keep energy high.
- If time allows, repeat a scenario with students switching to the *opposite* perspective—this builds empathy and critical thinking.

Manatee Tales: Stakeholder Showdown – Role-to-Scenario Match Table

This table matches each game scenario with the stakeholder roles most relevant to debating it. While any role can work in any scenario, you can use this table to quickly assign the most relevant roles for each scenario.

Scenario	Description	Best-Fit Stakeholder Roles
1. Tourism Boom	A new cruise line has added the marine sanctuary to its itinerary, bringing 500 extra visitors per week. How should the community respond?	Local Tourist (A), Foreign Tourist (B), Tour Operator (D), Environmental Guide (I), Developer (K)
2. Speeding Boats	Reports show more boat collisions with manatees due to an increase in high-speed tour boats. Should regulations change?	Tour Operator (D), Boat Captain (E), Conservationist (N), Researcher (O)
3. Gillnet Ban Proposal	Local officials propose banning gillnets in sanctuary waters to protect manatees, but some fishers say they'll lose income. What's the best solution?	Fisher 1 (F), Fisher 2 (G), Conservationist (N), Researcher (O)
4. Mangrove Clearing	A developer wants to clear part of a mangrove forest to build waterfront villas. How do you balance business and conservation?	Developer (K), Environmental Guide (I), Conservationist (N), Researcher (O)
5. Storm Damage	A recent hurricane damaged seagrass beds, a critical food source for manatees. How should restoration be funded and prioritized?	Farmer (J), Researcher (O), Conservationist (N), Environmental Guide (I)
6. Wastewater Runoff	Tests show increased pollutants entering the sanctuary from nearby farms	Farmer (J), Developer (K), Researcher (O), Conservationist (N)

	and towns. Who should take responsibility and how?	
7. Eco-Tour Certification	The Ministry of Tourism offers a certification for eco-friendly tours, but the process costs money. Should all operators be required to join?	Tour Operator (D), Environmental Guide (I), Foreign Tourist (B), Local Tourist (A)
8. Sanctuary Expansion	Conservationists propose expanding the sanctuary boundaries, which would restrict fishing in more areas. How should the community decide?	Fisher 1 (F), Fisher 2 (G), Conservationist (N), Researcher (O), Sanctuary Ranger (H)
9. Low Ranger Pay	Sanctuary rangers earn very little, leading to turnover. Should the community increase salaries, and if so, how will it be funded?	Sanctuary Ranger (H), Developer (K), Conservationist (N)
10. Manatee Education Campaign	A new education program could be launched in all local schools, but it requires time and resources. Should this be a priority?	School Teacher (L), Conservationist (N), Environmental Guide (I), Researcher (O)
11. Fishing Festival Debate	An annual fishing festival brings in tourists but increases pressure on fish stocks and risks to manatees. Should it continue as is, change, or be canceled?	Fisher 1 (F), Fisher 2 (G), Local Tourist (A), Foreign Tourist (B), Tour Operator (D)
12. Illegal Feeding	Some tour operators feed manatees to attract tourists.	Tour Operator (D), Boat Captain (E), Environmental Guide (I), Conservationist (N)

	How should the community handle this practice?	
13. Plastic Waste Problem	Plastic litter from beaches is washing into sanctuary waters, posing risks to manatees and other wildlife. What solutions should be implemented?	Restaurant Owner (C), Farmer (J), Developer (K), Local Tourist (A), Conservationist (N)
14. Drone Tourism	A tech company proposes using drones for close-up manatee photography tours. Is this innovative eco-tourism or a threat to the animals?	Tour Operator (D), Boat Captain (E), Foreign Tourist (B), Researcher (O)
15. New Conservation Grant	A $50,000 grant becomes available for a local conservation project. Which initiative should get priority—habitat restoration, enforcement, or tourism upgrades?	Researcher (O), Conservationist (N), Sanctuary Ranger (H), Environmental Guide (I), Developer (K)

LEARN MORE

If you would like to dive deeper into the world of manatees, check out some of the following resources:

• Florida Sea Grant's Manatee Curriculum: https://www.flseagrant.org/education/manatees/

• Manatee conservation by the Florida Fish and Wildlife Conservation Commission: https://myfwc.com/wildlifehabitats/wildlife/manatee/

• Manatee rehabilitation and tracking in the Dominican Republic by the Clearwater Marine Museum Research Institute: https://mission.cmaquarium.org/news/manatees-dominicanrepublic-get-help-from-clearwater-marine-aquarium-research-institute/

We hope you enjoyed this lesson!
Learn more about Conservation Nation at www.conservationnation.org