



Khaled bin Sultan
Living Oceans
Foundation

STANDARDS

- **CCSS:** RI.6.8-8.8, RST.6-8.1, RST.6-8.8, RST.6-8.10, SL.6.1-8.1, SL.6.4-8.4, SL.6.5-8.5, WHST.6-8.8, WHST.6-8.9; RST.9-10.1, 2, 4, 5, 7, 8, 10; RST.11-12.1, 2, 4, 10; RI.9-12.8, SL.9.1-12.1, SL.9-12.4, SL.9-12.5, WHST.9-10.8, WHST.11-12.8, WHST.9-10.9, WHST.11-12.9
- **NGSS:** MS-LS2-3, MS-LS2-4, MS-LS2-5; HS-LS2-7, HS-LS-4.D, HS-ESS3-3, HS-ESS3.C, HS-ESS3.D, HS-ETS1.A-B, HS-ETS1-2, HS-ETS1-3
- **NGSS Practices:** 6, 7, 8
- **OLP:** (grades 6-8): 5.A.1, 5.A.3, 5.A.4, 5.A.6, 5.A.16, 5.A.21, 6.A.1-A.11, 6.B.1-B.4, 6.C.1-C.4, 6.D.1-6.D.21, 6.E.1-6.E.15; (grades 9-12) 6.A.1, 6.A.3-A.6, 6.B.1-B.6, 6.C.1-C.3, 6.D.1-D.19, 6.E.1-.14

ONLINE CONTENTS

- [*My Wish: Protect Our Oceans*](#) Dr. Sylvia Earle discusses the rapid decline of the ocean and the need for more protection.
- [*Corals and MPAs*](#) Learn about Marine Protected Areas and how they can help protect coral reefs.

CONSERVATION

This lesson is a part of the *Conservation* unit, which describes different actions that people can take to manage and conserve coral reefs. Below is a summary of what is included in the entire unit.

UNIT CONTENTS

- A. [Background Information](#)
- Introduction
 - Mitigating Threats
 - Stakeholder Involvement
 - Education & Outreach
 - Monitoring
 - Enforcement
 - Restoration

B. Lessons

[Watch It! My Wish](#)

- A worksheet to accompany the [*My Wish: Protect Our Oceans*](#) video

[Watch It! Corals and MPAs](#)

- A worksheet to accompany [*Our Living Oceans, Episode 5: Corals and MPAs*](#) video.

[Lesson 1A: Explore a Hope Spot](#)

- An activity that explores an existing Hope Spot. Students learn about ecosystem disruptions and services, and the reasons that make this place special.

[Lesson 1B: Nominate a Hope Spot](#)

- An activity where students nominate a new Hope Spot that needs protection. Students present their proposed Hope Spot to their classmates who act as the “Hope Spot Council,” deciding if it should be approved.

[Lesson 1C: Advocate for MPA](#)

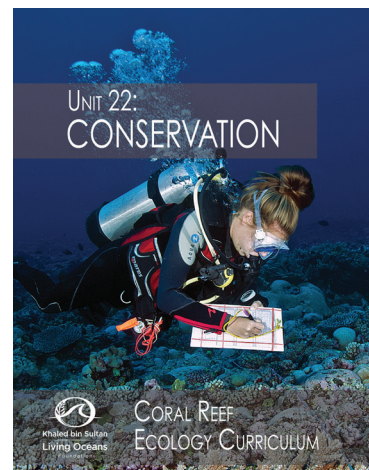
- Write a compelling letter that advocates for the creation of their proposed MPA to a stakeholder or group of stakeholders.

[Lesson 1D: Manage an MPA](#)

- An activity that creates a management plan for the three most important actions that are crucial to conserve their proposed MPA.

[Read It! Maori Conservation](#)

- A worksheet to accompany the [*Traditional Māori Conservation Methods Help Protect Reefs in the Cook Islands*](#) blog.



PRE-KNOWLEDGE

Before beginning these lessons, students should have a good understanding of the natural and anthropogenic threats to the ocean and the actions that can be taken to reduce these threats. They should also be able to explain the various ecosystem services that the ocean provides.

ADDITIONAL INFORMATION

Ocean conservation efforts vary around the world. Perhaps one of the most effective ways to protect the ocean is by establishing Marine Protected Areas (MPAs). The path to creating an MPA is not always the same; however, the activities in Lessons 1A-1D illustrate one path that can lead to the creation of one.

Lesson 1 consists of four different activities:

- **Lesson 1A: Explore a Hope Spot**
- **Lesson 1B: Nominate a Hope Spot**
- **Lesson 1C: Advocate for MPA**
- **Lesson 1D: Manage an MPA**

Lessons 1A-D are meant to be completed consecutively as knowledge builds upon the previous lesson; however, lessons 1A and 1B are similar. Lesson 1A has students exploring an existing Hope Spot; whereas, Lesson 1B requires that students nominate a Hope Spot that does not yet exist. The latter lesson requires a solid comprehension of the background information and advanced skills in researching information. Depending on the abilities of the students, instructors may find that it is not necessary to complete Lesson 1A before beginning Lessons 1B-D. For individuals who need further differentiation, Lesson 1A is a good introductory lesson that exposes students to the information before they attempt more difficult activities.

Before beginning Lesson 1B, it is important that students understand the difference between Hope Spots and MPAs. A Hope Spot does not designate an area as an MPA. This can be confusing because some Hope Spots are already established MPAs that apply to be a Hope Spot because they require additional protections. For Hope Spots that are not existing MPAs, this designation can be the first step towards creating one. Hope Spots provide additional funding and support, and create global awareness for the protection of an area. The creation of a Hope Spot can lead to further pressure on the country(s) authorities who have the ability to create an MPA. In classes where Lessons 1C and/or 1D will be completed, inform students that they need to nominate Hope Spots that are not existing MPAs.

Once students have nominated a Hope Spot (Lesson 1B), and was hopefully approved by their classmates, they are ready to take the next step – advocate for the creation of an MPA. During Lesson 1C, students will be asked to write a letter to a stakeholder or group of stakeholders, advocating for the creation of their MPA. To aid students in writing their letter, you may choose to use the *The Message Box*, a tool that aids in effectively communicating scientific information to a specific audience. This tool can be especially useful when trying to distill a lot of information into a meaningful and impactful message such as a letter to a stakeholder(s).

In Lesson 1D, the students' MPA has been approved. Students will be asked to create a management plan for their MPA. Before writing their plan, students will be asked to use the knowledge learned from the previous lessons to choose three actions that are most important to the protection and preservation of their MPA. Students will incorporate these actions into their management plan. If time is limited, it is suggested that only one or two of the actions are included in their plan.

Grading rubrics are included for Lessons 1B-1D to evaluate these activities. Together, these lessons will require time to complete, so it may be best to think of them collectively as a long-term project that may extend throughout the duration of the entire course.

LESSON 1B

TEACHER'S NOTES

AUTHOR

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LEARNING OBJECTIVES

- Define and identify ecosystem services.
- Identify and describe the threats to an ecosystem.
- Research actions that can reduce threats to ecosystems.
- Distinguish between a Hope Spot and a Marine Protected Area.
- Discuss the purpose of a Marine Protected Area.
- Propose a Hope Spot.
- Evaluate resources for credibility.
- Cite sources as textual evidence.
- Apply effective public speaking skills including clarity, speed, and volume; flow, pronunciation, eye contact, and confident body language.
- Communicate information in an organized, logical sequence.
- Utilize listening skills for evaluation of ideas.
- Effectively comprehend and communicate evidence.
- Apply evidence and reasoning when presenting.
- Recognize strengths and weaknesses in arguments.

KEYWORDS

- Biodiversity
- Ecosystem
- Ecosystem Services
- Endemic
- Health
- Hope Spot
- Instability
- Marine Managed Area (MMA)
- Marine Protected Area (MPA)
- Threats

MATERIALS

- Lesson 1B: Nominate a Hope Spot** student worksheet
- Internet
- Appendix A: Grading Rubric**
- Appendix B: Hope Spots Council Grading Card**

STANDARDS

- CCSS:** RST.6-8.1, RST.6-8.8, RST.6-8.10, RI.6.8-8.8, SL.6.1-8.1, SL.6.4-8.4, SL.6.5-8.5, WHST.6-8.8, WHST.6-8.9; RST.9-12.1; RST.9-12.8, RST.9-12.10, RI.9-12.8, SL.9.1-12.1, SL.9-12.4, SL.9-12.5, WHST.9-10.8, WHST.11-12.8, WHST.9-10.9, WHST.11-12.9
- NGSS:** MS-LS2-5; HS-LS2-7
- OLP:** grades 6-8: 6.A.1-A.11, 6.B.1-B.4, 6.C.1-C.4, 6.D.1-6.D.21, 6.E.1-6.E.15; grades 9-12: 6.A.1, 6.A.3-A.6, 6.B.1-B.6, 6.C.1-C.3, 6.D.1-D.19, 6.E.1-E.14

NOTE: Not all Hope Spots will provide the same ecosystem services, have the same disturbances, or require protection for the same reasons. Therefore, it is possible that not all standards above will be met.

ATTRIBUTIONS

- The Hope Spot Nomination Form in this lesson plan is based on Mission Blue's Hope Spot Nomination Form, which can be accessed at www.missionblue.org.

PROCEDURE

- After completing **Lesson 1A: Explore a Hope Spot**, students should have a good understanding of the purpose of a Hope Spot and the various reasons (ecosystem services) for creating them.
- In this activity, students can use their prior knowledge from the first part of this lesson to nominate their own Hope Spot. Encourage students to choose a new location that they think should be a Hope Spot. Students should consult the Hope Spot website (<https://bit.ly/3yxSdP1>) to make sure that their proposed location is not an existing Hope Spot. The proposed spot does not necessarily need to be a large, well-known ocean ecosystem such as the Great Barrier Reef (already a Hope Spot). It could even be a local ecosystem, such as a beach, island, or a mangrove forest. Remember to reinforce that Hope Spots are areas in the ocean that are protected because they are critical to the health of the ocean.
- Break students into groups. **NOTE:** This lesson can also be assigned to individuals.

4. Instruct students to research their proposed Hope Spot and then write their answers to these questions on their **Lesson 1B: Nominate a Hope Spot** student worksheet. Students should cite their sources of information in their answers. If necessary, review how to cite textual evidence and evaluate sources of information. The citations can be listed on a separate page.
5. Once students have finished filling out their student worksheets, explain that each group will present their Hope Spot nomination to the class. Groups should make compelling presentations for why their proposed Hope Spot should be accepted. Provide groups with the **Appendix A: Educator Grading Rubric** and **Appendix B: Hope Spots Council Grading Card**. Each group will be graded in two ways. The teacher will use the **Appendix A: Educator Grading Rubric** to grade each group of students on presentation content, speaking skills, and non-verbal skills. Those students not presenting will form the Hope Spots Council. During each presentation, each student in the group will use the **Appendix B: Hope Spots Council Grading Card** to take notes about each presentation. Afterward, the groups will be allowed to ask questions to the presenters. Once questions have been answered, the Hope Spots Council will assemble to discuss the proposed Hope Spot. Each Hope Spots Council group will provide feedback as to whether the location should be designated as a Hope Spot. **NOTE:** Please do not submit the students' nominations on the Mission Blue website.

LESSON 1B

NOMINATE A HOPE SPOT

INSTRUCTIONS: Nominate an area that you think should be a Hope Spot. Make sure that your proposed area isn't already an established Hope Spot by looking at this website: <https://mission-blue.org/hope-spots/>. When researching your proposed Hope Spot, make sure to cite textual evidence in your answers where necessary. Don't forget to evaluate your sources to make sure that they are credible. You can place your list of citations under question #12.

1. Names of the nominator(s). _____

2. What Hope Spot are you nominating? _____
3. Where is the Hope Spot located? _____
4. How large is this Hope Spot? _____
5. What ecosystem(s) are a part of the Hope Spot?

6. What are the threats and potential threats to this Hope Spot?

7. List five ecosystem services that are provided by this Hope Spot.

8. What are the current protections for this Hope Spot (if any)?

9. What type of human activities take place in this Hope Spot?

10. Explain why this proposed Hope Spot is special. Does the area (for each question below please list yes/no/unsure and explain):

Question	Yes	No	Not sure	Explain
Hold significant or representative populations of rare or endemic species				
Hold a wide diversity of species				
Hold a significant process or ecosystem here (e.g., phytoplankton bloom, reefs, kelp forests)				

Question	Yes	No	Not sure	Explain
Contain the site of significant event (breeding/spawning)				
On or part of a migration route				
Contains organisms that are threatened or endangered				
A site that contains economic/touristic appeal				
Potentially encouraging scientific research projects				
Significant historical, cultural or spiritual values				



Criteria		Unsatisfactory 1	Average 2	Exceptional 3	Score
Content	Evidence	The speaker does not use correct, relevant, and/or appropriate evidence (facts, examples, details, descriptions) to support ideas.	The speaker mostly uses correct, relevant, and/or appropriate evidence (facts, examples, details, descriptions) to support ideas.	The speaker consistently uses correct, relevant, and/or appropriate evidence (facts, examples, details, descriptions) to support ideas.	
	Subject Knowledge	Presenter does not grasp the information. Did not directly answer questions and provides little to no explanation about the subject.	Presenter moderately grasps the information. Answers most questions with some explanation about the subject.	Presenter fully grasps (more than required) information. Directly answers questions about the subject with detailed explanations.	
	Organization	It is difficult to follow the presentation because the speaker does not present a logical sequence of information.	It is easy to follow the presentation because the speaker presents a logical sequence of information.	It is effortless to follow the presentation because the speaker has a good hook and a logical, interesting sequence of information.	
Speaking Skills	Visual Aids (graphics, photos, and videos)	There are little to no visuals in the presentation.	There are mostly appropriate and good visuals but some that take away from the content of the presentation.	There are appropriate and quality visuals that complements the content of the presentation.	
	Clarity, Speed, & Volume	The information was not clearly conveyed and the speaker consistently : <ul style="list-style-type: none"> • mumbles • speaks too quickly or slowly, and/or • speaks too loudly or softly. 	The information was mostly clearly conveyed and the speaker rarely : <ul style="list-style-type: none"> • mumbles • speaks too quickly or slowly, and/or • speaks too loudly or softly. 	The information was clearly conveyed and the speaker almost never : <ul style="list-style-type: none"> • mumbles • speaks too quickly or slowly, and/or • speaks too loudly or softly. 	
	Flow (Pauses and verbal fillers like um, uh, er, so, like, etc.)	The speech includes several distracting pauses and many verbal fillers.	The speech includes few distracting pauses and few verbal fillers.	The speech flows nicely with almost no distracting pauses and very few verbal fillers.	
Non-verbal Skills	Pronunciation	Pronunciation is poor and most vocabulary words are pronounced incorrectly.	Pronunciation is good , but some vocabulary words are pronounced incorrectly.	Pronunciation is great and very few vocabulary words are pronounced incorrectly.	
	Eye Contact	Makes very little to no eye contact.	Mostly makes eye contact.	Makes full eye contact.	
	Confident Body Language	The speaker appears stiff, nervous, fidgets, leans, sways, and/or slouches.	The speaker sometimes appears stiff, nervous, fidgets, leans, sways, and/or slouches.	The speaker stands up straight , doesn't appear nervous, and uses confident body language when presenting.	
TOTAL SCORE					

HOPE SPOTS COUNCIL GRADING CARD

INSTRUCTIONS: During the proposed Hope Spot presentation, take notes on the Hope Spots Council Grading Card below. As you think of questions about the presentation, write them down. You will be able to ask them at the end of the presentation.

1. Proposed Hope Spot Name: _____

2. People proposing the Hope Spot: _____

Explained in the Presentation	Yes	No	Council Notes and Questions
Threats and potential threats			
Ecosystem services			
Significant or representative populations of rare or endemic species			
Wide diversity of species			
Significant process or ecosystem here (e.g., phytoplankton bloom, reefs, kelp forests)			
Site of significant event (breeding/spawning)			
On or part of a migration route			
Contains organisms that are threatened or endangered			



Explained in the Presentation	Yes	No	Council Notes and Questions
A site that contains economic/touristic appeal			
Potentially encouraging scientific research projects			
Significant historical, cultural, or spiritual values			

3. Do you approve this Hope Spot? Circle **Yes** or **No**.
Explain your reasoning.