

Our Coast, Our Future



Mass Audubon



Massachusetts Office of
Coastal Zone Management

Lesson 3: Research Preparation Facilitator Guide

Grade Level: Grades 5-8

Timing: *Our Coast, Our Future Lesson 3: Research Preparation* is divided into two classes each intended to be facilitated in 45-minutes or combined into a longer block.

Tips: In this guide each class description contains:

- **How to prepare** to facilitate lessons including tips on what materials to gather and what student supports should be prepared.
- **Essential questions** that focus the purpose of the class investigation.
- **Vocabulary and terms** divided into “tier one” words (academic words that are frequently used in many disciplines and may have different meanings depending on context) and “tier two” words (discipline specific academic words that are infrequently used outside of a specific context, in this case within the science and policy of climate change). Definitions for tier three words are provided in the *Student Glossary of Terms*.
- **Class procedure** that outlines student activities and provides guiding questions and discussion facilitations tips.
- **Assessment** tools to gauge student engagement, understanding, and skill acquisition. These are generally reflection questions to be answered by students at the end of each class.

Lesson 3 – Research Preparation

This lesson will help students narrow their focus for researching specific problems that occur in their chosen scenario, and the solutions to them, as well as techniques and expectations for the research that will follow in Lessons 4 and 5.

- Select appropriate research tools and sources for researching climate change impacts at the local level.
- Differentiate between policy and practice when describing climate change impacts and solutions.


Priority Activities follow the ‘through line’ and will meet the priorities of the unit.

Secondary Activities were designed to be included in the unit but can be modified or eliminated if necessary

Priority Activities:	In class 3.1 students are introduced to the complexity of issues and how stakeholders need to work together. In order to review solutions and strategies, it is important to understand the difference in policy and practice.
Secondary Activities:	Class 3.2 will help students process their questions to support their bridge to the next part of the unit.

Class 1

Teacher Materials & Preparations: Before this lesson prepare the following resources for each Student Guide; students will be using *What’s What: Policies & Practices Related to Our Issue-Activity Sheet* activity sheet to organize their ideas. Facilitators should review *Our Coast, Our Future Check-In Video* before class and familiarize themselves with the *Distinguishing Policy & Community Practice: An Introduction- Activity Sheet* and *What’s What: Policies & Practices Related to Our Issue-Activity Sheet*.

	<p>Distinguishing Policy & Community Practice: An Introduction</p> <p>Learning Objective: To learn the basic difference between a policy and a community practice.</p> <p>Additional Information: Refer to "1950s-Covid19" for additional information.</p> <p>Scenarios: We have additional activities on policy and practice that can be coupled with this to introduce the concept. Consider using this activity as the introductory opportunity. Also, use the "What's to Your Future?" hands-on activity so students have the opportunity to try this out before research begins.</p> <p>1) Display the following table in front of your class:</p> <table><thead><tr><th>Scenario 1:</th><th>Scenario 2:</th></tr></thead><tbody><tr><td>Chasing guns is not allowed in school</td><td>I choose to wear jeans on the weekends</td></tr><tr><td>We must let 18 to get a driver's license</td><td>My neighbors require their houses and cars</td></tr><tr><td>ABC Pharmaceutical Company does not test its products on animals</td><td>A big group of high school students usually hang out at the local skate park on Friday nights</td></tr></tbody></table> <p>(Explain that one column is a list of policies and the other is a list of practices.)</p> <p>2) Ask: "What do the statements in the first list have in common?"</p> <p>Answer: They are rules or guidelines established by people/organizations in authority.</p> <p>(Explain that one column is a list of policies and the other is a list of practices.)</p>	Scenario 1:	Scenario 2:	Chasing guns is not allowed in school	I choose to wear jeans on the weekends	We must let 18 to get a driver's license	My neighbors require their houses and cars	ABC Pharmaceutical Company does not test its products on animals	A big group of high school students usually hang out at the local skate park on Friday nights	<p>What's What? Policies & Practices Related to Our Issue</p> <p>Name: _____ Date: _____</p> <p>1. Choose Scenario:</p> <p>2. Choose a single resource suggested in the scenario StoryMap and identify and record several Policies and Practices.</p> <p>3. Put a plus (+) if the policy or practice supports (benefits) a resolution of your issue. Put a minus (-) if the policy or practice doesn't support or benefits a resolution of your issue. (In keeping your issue in mind) include whether it's a public or private policy, and the source from which the information came.</p> <table><thead><tr><th colspan="2">Policies</th><th colspan="2">Practices</th></tr><tr><th>Description</th><th>+</th><th>Description</th><th>-</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>	Policies		Practices		Description	+	Description	-																
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<p><i>Our Coast, Our Future Check-In Video</i></p>	<p><i>Distinguishing Policy & Community Practice: An Introduction- Activity</i></p>	<p><i>What's What: Policies & Practices Related to Our Issue-Activity Facilitator Guide and/or Student Sheet</i></p>																																

Essential Vocabulary:

- Tier 2: source, credibility, behavior, solution
- Tier 3: policy, practice, scenario, criteria

Essential Question: How do you identify policies and practices that inform a community's climate issues?

Class Procedure:

- **Student Welcome (6 minutes):** Let students know that they will begin class by watching the *Our Coast, Our Future Check-In Video* give advice on how to think through problem solving while including multiple perspectives.
 - Show the video
 - Ask students to share their thoughts, questions, and concerns about the project.
 - Let students know that in the next few classes they will be investigating different perspectives on their climate scenario as well as strategies to help impact the effects of climate change on their community.
- **Activity (30 minutes):** Let students know that in this class they will be looking at an important topic that they will need to understand when looking at community climate strategies: policies and practices.
 - Teacher facilitator should guide students through the *Distinguishing Policy & Community Practice: An Introduction- Activity*. Facilitator should refer to attached activity instructions. There is not a student facing version of this document but you can adapt if appropriate.
 - Once students have had an introduction to policies and practices students should move on to do the *What's What: Policies & Practices Related to Our Issue-Activity Sheet*. There is an attached facilitator guide and a student worksheet.
 - This activity will provide students an opportunity to look at their chosen issue and identify if the behaviors and solutions associated with the climate issue are related to either a community policy or a practice as the communities' approach to changing a policy is different from changing a practice.
 - Teacher facilitator should help students though the choosing one resource from the StoryMap to investigate
 - Facilitator may choose to do this the beginning of this activity as a whole class and give students time to review the resource and help the whole group find at least one policy or practice and then have them work individually or in small groups before returning to share work.
 - It is also possible to do one resource as a whole class group and then to assign other resources to other students to be done either in class or for homework.
- **Discussion (10 minutes):** Teacher facilitator will debrief the policy and practice activity.


- Ask students, “What did you discover about the policy and practices in the resources you investigated and the resources position on your climate challenge”?
- **Wrap-up (5 minutes):** Let students know that in the next class they will be developing the questions that will lead their future research on their climate challenge.
 - Remind students to complete their class assessment, either at the end of class or as homework.

Assessment of knowledge, understanding and skills:

- **Question prompt:** “Describe one policy and one practice that is common in your classroom or school. Explain why you consider these choices a policy and a practice”.

Class 2

Teacher Materials & Preparations: Before this lesson prepare each Student Guide, students will be using *Developing Burning Questions* Activity Sheet to generate questions that will guide research into their climate challenge strategies. Facilitators should review activity before class.

		
<p><i>Developing Burning Questions</i> <i>Activity Sheet</i></p>		

Essential Vocabulary:

- Tier 2: (none)
- Tier 3: strategy

Essential Question: What questions are important to describe problems and find potential solutions in this challenge?

Class Procedure:

- **Student Welcome (5 minutes):** Consider asking students, “When you find something that interests you or you are curious about, what kind of questions do you ask or actions do you do to find more information”?
 - Record some student responses. Encourage students to think about things they enjoy such as movies, games, or books when thinking about “things of interest or that spark curiosity”.
- **Activity (20 minutes):** Let students know that they will be deciding on the questions that they will research in the next Lesson to help them determine the best strategies to apply to their chosen climate challenge. In order to research strategies, you must craft creative questions.
 - Let students know that to develop questions for their research they will be using *Developing Burning Questions* Activity Sheet.
 - In the activity students follow the questions prompts in the graphic organizer to generate questions for research.

- Teacher facilitator should review the assignment and give students time in small groups to identify key questions to research problems and potential solutions for their chosen challenge. Students are encouraged to look back at other work they have done to generate ideas.
- Teacher facilitator should move around the room to help students with questions about the activity or to help students navigate complicated and interconnected information.
- Teacher facilitator may also choose to assign one category (who, what, etc.,) of questions to small groups of students.
- **Discussion (20 minutes):** Teacher facilitator will lead students through sharing out questions generated in the *Developing Burning Questions* activity and attempt to generate a final list of questions to guide research in the next Lesson.
 - Teacher facilitator may need to prioritize which questions to research, depending on number generated.
 - Questions should be modified as needed, with teacher guidance, so that each group investigates a problem (just one) and possible solution strategies (several).
- **Wrap-up (5 minutes):** Let students know that in the next class they will be using the questions generated today to begin researching their climate challenge strategies.
 - Remind students to complete their class assessment, either at the end of class or as homework.

Assessment of knowledge, understanding and skills:

- **Question prompt:** “Which question generated during this class are you most interested in learning more about? Describe why.”