



Abalone by ©Jackie Moon

## Abalone: Indigenous Beauty

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**NASMC**  
Native American  
Studies  
Model Curriculum

# Abalone: Indigenous Beauty

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**Grade Level:** 3-5 grade

**Subjects:** Science and Social Studies

**Time Frame:** 90 minutes or two 45 minute sessions

## Lesson Links:

-  Slides: Abalone: Indigenous Beauty
-  Script/Facilitation Support: Abalone Indigenous Beauty
-  Student Handout: Abalone Indigenous Beauty
-  Traditional Stories about Women.pdf
-  Answer Key: Abalone Indigenous Beauty
- Optional:  Jackie Fawn Fish Bear Studio Color Pages.pdf

## Materials Needed:

Projector, screen, speakers for video, writing implement, printed worksheet

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## Curriculum Themes

- ☒ History
- ☒ Cultural Strengths
- ☐ Law/Government
- ☒ Relationship to Place
- ☐ Cross Curricular Integration

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## Unit Overview

In this lesson, students will explore the fascinating world of abalone, sea creatures that live along the rocky coasts of California. They will learn about the abalone's body parts and where it lives, discovering how these animals are an important part of the ocean habitat. The lesson will also include a traditional story from the local tribes of Northwestern California, helping students understand how Indigenous people have cared for and respected abalone for many generations through their cultural knowledge and traditions. Students will learn about the history of abalone



populations, including how and why their numbers have gone down over time due to factors like overfishing, pollution, and changes in the environment. Through this lesson, students will connect science and traditional ecological knowledge, gaining a deeper appreciation for the abalone and why it is important to protect them today.

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## Learning Goals

- Define nearshore marine environments and their connections with Indigenous Californians, coastal and inland, with an emphasis on abalone.
- Identify and understand some of the traditional foods from the ocean and estuaries within TEK.
- Identify how impacts to the environment affect Indigenous Peoples and marine life.

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## Background for Educators

Before teaching this lesson, it is important for educators to familiarize themselves with the local ancestral territories of the Indigenous peoples whose traditional lands are along the Northwestern California coast. This area is home to many tribes, such as the Yurok, Karuk, Tolowa, and Wiyot, each with rich cultural connections to the coastal environment and marine life, including abalone. Understanding the significance of these ancestral territories fosters respect and appreciation for the Indigenous communities and their deep-rooted relationship with the land and sea.

Abalone are marine mollusks with distinctive, colorful shells and play an important ecological role in coastal habitats. Along the Pacific Northwest California coast, abalone have been a vital resource for Indigenous peoples for thousands of years. Tribes harvested abalone sustainably for food, tools, jewelry, and trade. They developed traditional ecological knowledge (TEK) that guided respectful harvesting practices and protected abalone populations. Stories and cultural teachings often highlight the connection between people, animals, and the environment.

In recent history, abalone populations have dramatically declined due to overharvesting, habitat degradation, pollution, climate change, and disease. This decline threatens not only the species but also the cultural traditions and ways of life of coastal Indigenous communities.

Educators should approach this lesson with cultural humility, honoring Indigenous voices and knowledge alongside scientific facts. Preparing by reading about local tribes' history and TEK related to abalone will enrich the lesson and help students appreciate the important intersection of culture, ecology, and conservation.

- Watch  Oceans (TEK, Science & Management Webinar Series)
- Watch  TEK Species Series: Abalone History and Ecology in Native California



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## Curriculum Standards

### English Language Arts:

- SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and+E601 texts, building on others' ideas and expressing their own clearly.
  - a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
  - b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
  - c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
  - d. Explain their own ideas and understanding in light of the discussion.
- SL.3.2: Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.3.3: Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

### Next Generation Science:

- LS1.B: Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.
- LS4.B: Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.
- LS4.C: For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.

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## Teacher Directions

Before the lesson, print Student handouts (linked above) and have Lesson Slides (linked above) projected on the classroom screen for student view. If a classroom projector and/or screen is not available, the slides could be linked to a google classroom or online student platform. Lesson Slides are animated to gradually provide information, so make sure to present using “slideshow” mode. Content will appear on click.

Use Teacher Script (linked above) to support facilitation of the lesson.

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## Scaffolding

Universal Design for Learning:

Engagement: Consider the following method to support with lesson engagement:

- Create cooperative learning groups
- Provide feedback that is frequent, timely, and specific
- Provide feedback that encourages perseverance, focuses on development of efficacy and self-awareness, and encourages the use of specific supports and strategies in the face of challenge

Representation: Consider the following method to support with multiple means of representation:

- Allow the use of Text-to-Speech and screen readers
- Embed visual, non-linguistic support for vocabulary clarification (pictures, videos, etc.)
- “Chunk” information into smaller elements

Action and Expression: Consider the following method to support in presenting their learning in multiple ways:

- Provide options for Physical Action
- Provide sentence starters or sentence strips

For additional ideas to support your students, check out the resources below:

- UDL Guidelines at CAST (2018) <http://udlguidelines.cast.org>
- Oakland University ENGAGEMENT: Universal Design for Learning Principle [ENGAGEMENT: Universal Design for Learning Principle TEACHING STRATEGIES](#)
- Oakland University REPRESENTATION: Universal Design for Learning Principle [REPRESENTATION: Universal Design for Learning Principle TEACHING STRATEGIES](#)
- Oakland University ACTION AND EXPRESSION: Universal Design for Learning Principle [ACTION & EXPRESSION: Universal Design for Learning Principle TEACHING STRATEGIES](#)

Multilingual Learner Supports:

Emerging: Consider the following method to support with emerging students:

- Use group work and peer learning to allow students to learn from each other.
- Repeatedly model how to say or write a new word or phrase, and give students many opportunities to practice.
- Sentence Frames and Starters: Provide sentence structures for students to fill in (e.g., “I see a \_\_\_\_\_,” “This is a \_\_\_\_\_.”).

Expanding: Consider the following method to support with expanding students:

- Encourage students to practice using new vocabulary in conversation or group discussions, guided by structured prompts or pair work.
- Use context to help explain new vocabulary.



Bridging: Consider the following method to support with bridging students:

- Extend content vocabulary with multiple examples and non-examples.
- Text Complexity: Gradually introduce more complex texts (e.g., short stories, informational texts) with supports like glossaries or simplified summaries to aid comprehension

Reaching: Consider the following method to support with bridging students:

- Reinforce academic vocabulary across content areas. Revisit new vocabulary frequently.

For additional guidance around scaffolding for multilingual learners, please consult the following resources:

- English Learner Toolkit of Strategies  
<https://ucdavis.box.com/s/ujkdc2xp1dqjzrlq55czph50c3sq1ngu>
- Providing Appropriate Scaffolding  
<https://www.sdcoe.net/educators/multilingual-education-and-global-achievement/oracy-to-olkit/providing-appropriate-scaffolding#scaffolding>
- Strategies for ELD <https://ucdavis.box.com/s/dcp15ymah51uwizpmmt2vys5zr2r5reu>
- ELA/ELDFramework  
<https://www.caeducatorstogether.org/resources/6537/ela-eld-frameworkHMONGHISTANDCULTSTUDIESMODELCURRICULUM> 9
- California ELD Standards  
<https://ucdavis.box.com/s/vqn43cd632z22p8mfzn2h7pntc71kb02>

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## Additional Resources and References

- [The Yurok Tribe](#)
- [The Karuk Tribe](#)
- [The Wiyot Tribe](#)
- [The Hoopa Tribe](#)
- [The Tolowa Tribe](#)

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## California Native American Studies Model Curriculum

The California Native American Studies Model Curriculum (NASMC) will support the design and development of open-source lesson plans, primary source documents, planning resources, teaching strategies, and professional development activities to assist California K-12 educators in teaching about California Native American Studies. Per AB 167, the NASMC is defined as lesson plans, primary source documents, planning resources, teaching strategies, and professional development activities to assist educators in teaching about Native American Studies. The traditional cultural knowledge within lessons, including Native language, art, media and stories, are owned by the respective Tribal nations, Native knowledge keepers, artists, producers and authors of the curriculum as indicated in each lesson.

