



MICHIGAN STATE
UNIVERSITY | **Extension**

Taking a Bite Out of Lunchroom Waste

Taking a Bite out of Lunchroom Waste was designed by the [Northeast Michigan Great Lakes Stewardship Initiative \(NEMIGLSI\)](#) and Michigan State University Extension and funded by a NOAA Marine Debris Prevention Grant.

The purpose of *Taking a Bite out of Lunchroom Waste* is to stop marine debris before it starts by encouraging students to evaluate the traditional practices around waste in their school lunchrooms and investigate potential alternatives that would reduce the amount of waste ending up in the landfills.

In 2024 the team updated the curriculum to include connections to climate change. We relied heavily on a variety of resources from the United States Environmental Protection Agency. These resources are in the resource spreadsheet.

The design team made four decisions early on:

- 1) Build the lessons around [a phenomena](#), "*How can students reduce marine debris?*" This is the anchoring phenomenon for the whole unit with investigative phenomena in each lesson.
- 2) Embrace [three-dimensional learning](#) identified by the National Research Council 2011 report [Framework for k-12 science education](#) and the foundation for the Michigan Science Standards. There is a companion [alignment to the NGSS](#) document. *Note to educators: Alignments are open to individual interpretation with many right answers, don't let them be a barrier.*
- 3) Use [the Beetles Project](#) as a professional learning opportunity tool woven throughout the unit. You will see links to videos from the Beetles Project in the teacher prep section of some lessons. [The BEETLES learning cycle](#) of Invitation, Exploration, Concept Invention,

Application and Reflection is the framework for each lesson in this curriculum.

- 4) Weave the [Great Lakes Literacy Principles](#) throughout the lesson series. You will see links to specific principles for each lesson as we strive to help students understand essential principles and fundamental concepts about the characteristics, functioning, and value of the Great Lakes.

What am I required to complete with my students?

Taking a Bite out of Lunchroom Waste is a curriculum designed to be used by any grade K-12+. With that in mind we encourage you to make a copy of the curriculum and modify it to meet you and your students needs. Consider watching the videos before sharing with students - you may determine they will not help deepen your students understanding - feel free to skip them or any part you feel will not help your students better understand marine debris. The (Co-authors) Northeast Michigan Great Lakes Stewardship Initiative and Michigan State University Extension are excited that you are interested in helping your students realize their power to change their community through exploring how they can reduce lunchroom waste. Whether your students skim the surface or dive deep into marine debris prevention, we appreciate the seeds you plant knowing this will move a community one step closer to lasting change that reduces marine debris in the Great Lakes. Consider this your invitation to pick and choose the activities you feel will best move your students towards a deeper understanding of the need to reduce marine debris.

Before engaging students....

[NEMIGLSI](#) is a network of education and community partners working to promote quality *place-based stewardship education* opportunities in Northeast Michigan for the benefit of our youth, our community, and our environment. With this framing in mind, we designed *Taking a Bite out of Lunchroom Waste* to be a partnership between your school/classroom and community organizations interested in preserving and protecting local aquatic ecosystems.

1. Brainstorm a list of potential community partners:

- a. Local watershed coalitions or Friends of local parks, rivers, lakes groups
 - b. Conservation districts/organizations
 - c. Local chapters of Trout Unlimited, Wild Turkey Federation, Pheasants Forever, Farm to Fork, Ducks Unlimited
 - d. MSU Extension
 - e. Michigan Sea Grant
 - f. National Oceanic and Atmospheric Administration
 - g. US Fish and Wildlife Service
 - h. Michigan DNR
 - i. Local waste management/recycling centers
2. Determine the role of the community partner and share their story
 - a. Help connect the issue of marine debris to your community
 - b. Share their story - explain why they or their organization is concerned about marine debris. How does it impact their organization?
 - c. Arrange for community partner(s) to join the students on their journey through the unit (in person or by the internet)
 - i. Participate in the cleanup (Lesson 1)
 - ii. Join in the Trash conversation (Lesson 1)
 - iii. Join so the students can report their lunchroom audit results (Lesson 3 or 4)
 - iv. Join for presentation of feasibility reports (Lesson 5)
 - v. Other times you feel they can help strengthen the connection between your school and the community.
3. Coordinate when, where and how students will present their plans during:
 - a. School board meetings
 - b. Building principals
 - c. School lunchroom manager meetings
 - d. Other relevant decision makers

Sustaining *Taking a Bite out of Lunchroom Waste*

This is **not** a “one and done” program. Each year is an opportunity for a new class of students to learn about marine debris and to help determine ways their school can reduce the amount of trash, potential marine debris it produces. Each change your school makes is another success in the battle against marine debris.

1. Follow up
 - a. Consider inviting admin into the classroom 1-2 months after presentations to provide decisions and reasoning
 - i. If pitches are at the end of the year
 1. Schedule time for the beginning of the next year for admins responses. This could help launch the whole process or be a great start to lesson 3 the lunch audit.
 - ii. If the changes your students recommended are implemented during this school year.
 1. Predict the impact the change will have on the amount of trash produced.
 2. Redo the lunch audit
 3. Compare your data to your predictions
 4. Compare your new data to your original audit data
 5. Consider how effective the change seems to be
2. Reflect with students on the whole process.
 - a. Explain that the work of reducing our waste is not over and next year students will do the same activities and identify their own items.
 - i. What was most useful?
 - ii. What do they think should be different and how?