9 | Adopt-a-Beach™

GRADE LEVEL

4-8

ongoing:
field trips plus classroom work

Developmental Modifications: Adopt-a-Beach™ can be done with younger students.
Young children will need close supervision at the beach and should exercise extreme caution with sharp objects.
When picking up garbage, always wear gloves.

summary

Students adopt a beach along the Great Lakes shoreline and visit it two to five times to collect litter and other data. Students enter their data into an online database. Students complete a project to further improve their beach.

*Note: Contact the Alliance for the Great Lakes to get involved with the Adopt-a-Beach™ program.

See http://www.greatlakes.org/adoptabeach
for more information.

objectives

- Discuss how people can help their community.
- Reflect on why beaches are a special amenity.
- Collect data on litter, water quality and physical characteristics at a beach.
- Analyze data for trends and patterns.
- Create solutions based on identifiable concerns.

prerequisite

Garbage Investigation and Beach Mysteries

vocabulary

None

setting

INDOORS OUTDOORS

Adopted beach and in classroom

subjects

Environmental Science, Social Studies, Math

standards

This Great Lakes in My World activity is aligned to the Common Core State Standards and to state learning standards in:

Illinois
Indiana
Michigan
Minnesota
New York
Ohio
Pennsylvania
Wisconsin

This alignment is available on your Great Lakes in My World CD in the "Standards" folder and on-line at http://www.greatlakes.org/ GLiMWstandards.

materials

- See Adopt-a-Beach™ checklist (on cd)
- Other Adopt-a-Beach™ materials (also on cd)

background

The Alliance for the Great Lakes' Adopt-a-Beach™ program is a service learning and citizen science program. Through this program, groups collect data on litter and water quality during a series of, ideally, five visits. They then use the data to create positive change at the beach.

Service learning integrates community service into curriculum, and connects schools with agencies and neighborhoods. These experiences build an understanding of a community, enrich learning and help youth develop personally, socially and academically. Service learning incorporates such steps as: research, investigation, analysis, action, reflection and celebration.

The Alliance for the Great Lakes' Adopt-a-Beach™ program is an easy and fun way for groups to connect with part of the Great Lakes' shoreline: their favorite beach. Adopters generally commit to five visits per year. During the visits, adopters use special forms to collect data on three different aspects of their beach.

procedure

Part One: Collecting and Analyzing Data

1. Gather information on Adopt-a-Beach™ through www.greatlakes.org and email questions to: adoptabeach@greatlakes.org
2. Select a beach to adopt and send your visit schedule to the Alliance for the Great Lakes. They will send you a participation form to fill out. If your group cannot commit to all five visits, consider asking another group to share the beach visits and data collection.
3. Use the equipment checklist (on cd) to gather the necessary supplies.
4. Pre-visit Reflection: Have the students answer the first set of journal questions.
5. Go to your adopted beach and collect data on the three forms:
   • Beach Assessment (once per year): During the first visit of each year, groups take a careful look at the existing physical characteristics of the site.
   • Litter Monitor (each visit): At each visit, litter is collected, recorded, and recycled or disposed of properly.
   • Water Quality Monitor (each visit): Using a simple test, investigate bacteria levels in the water. High bacteria levels can cause beach closings and swimming bans.
6. Once back from each beach visit, have students answer the second set of journal questions. Provide one copy of this page for each visit. Discuss as a class.
7. Tally all data and, if your beach is on a Great Lake, enter it into the Adopt-a-Beach™ database. The database allows groups to compare findings and reflect on improvements. This data is available to the public as well. Use online database to respond to question #6.

8. Review and analyze the data over the course of your visits, looking for trends and issues on your beach. Graph the data in order to gain a greater understanding of beach garbage issues. Find creative ways to display your data, through graphs, posters and presentations. Ideas for ways to help the beach will surface as students analyze their data.

Part Two: Taking Action

1. Use the information gathered to help create positive change at the beach by asking: What are some of the problems this beach has? How could we help solve beach problems? What solutions do the students come up with for issues they encounter? *Solutions may range from educating others within the school about keeping beaches healthy to trying to get additional garbage cans or educational signage at the beach. This could involve educating others, writing a letter with suggested improvements to your municipality or a community leader, or many other positive actions.*
2. After at least two visits, have students complete and share the third journal page. Use this as an opportunity to teach students about choosing projects carefully. Many projects are bigger than groups realize, and fail because of it. Teach students to select a manageable project that they can succeed at.

wrap-up

1. Have students share their knowledge and experiences with others in the school and community.
2. Stage a celebration that includes others who will appreciate learning about your adopted beach and what the students did for it.

assessment

Rubric on page 311

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journal pages
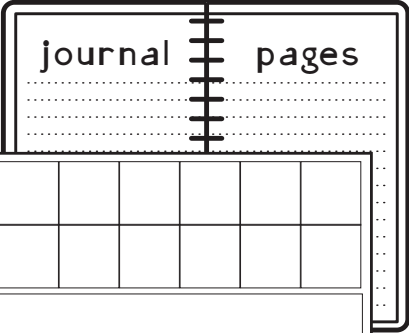
FIRST NAME

LAST NAME

Answer these questions BEFORE your first beach visit.

[1] How often do you visit the beach?

....

....

[2] When you visit the beach, what do you do there?

....

....

....

[3] What do you like best about the beach?

....

....

....

[4] What factors determine beach conditions?

....

....

....

[5] When was the last precipitation (rain, snow, hail) and how might this impact the beach?

....

....

....

....

[6] What ideas do you have for creating positive change at the beach?

....

....

....

[7] What are you looking forward to as part of Adopt-a-Beach™?

....

....

....

....

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journal pages

FIRST NAME

LAST NAME

Answer these questions AFTER each beach visit.

[1] Describe how the beach looked when you arrived.

....
....
....

[2] What did you like best about your beach visit?

....
....
....

[3] What surprised you about the visit to the beach?

....
....
....

[4] What did you learn from the data you collected?

....
....
....

[5] What was the most frequently found trash item?

....
....

[6] How does your data compare to past visits you have made, or to data other
    groups around the lake have collected?

....
....
....
....

[7] Based on your data, what ideas do you have for creating positive change at this beach?

....
....
....
....

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4-8

journal   pages

FIRST NAME

LAST NAME

Answer these questions after at least 2 visits.

[1] What are your favorite ideas for ways to create positive change at the beach?

....

....

....

....

....

[2] Choose one you would like to carry out.

....

[3] What resources (time, money, etc.) are needed for this project?

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....

....

....

[4] What challenges might you face while working on this project?

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....

....

[5] How will you overcome these challenges?

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....

....

[6] List the first steps you think the class should take.

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