

Oyster Restoration for the Chesapeake Bay

Deeper Learning Postcard



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Highlights

Vetted Project: The Honors Biology students' goal was to encourage the public to make lifelong investments in maintaining the food webs in our local area. By understanding the importance of oysters in the aquatic and terrestrial ecosystems of the Chesapeake Bay and its watershed, they will become better stewards of the oyster and its shell.

Sustainability: The restoration of oysters for their ecological impact on the Chesapeake Bay and the surrounding ecosystem.

Driving Question: Why is oyster restoration important in the Chesapeake Bay and how do we restore oysters to the Bay?

Student Reflection: "I enjoyed cleaning the spat and I learned how important they are in the ecosystem of this area."

Teacher Reflection: "I learned how important the oyster is to our ecosystem. I really enjoyed watching the students as they began understanding the importance of oysters to the ecosystem of the area now and in the future."

Lessons Learned: I would allow the students to guide their own study of the importance of oysters in their ecosystem instead of teacher-guided exploration.

WANTS

I. Authenticity

The oyster shells were cleaned in order to ensure the health of the spat. The spat was on display as students washed and measured the spat.

Performing

Speech or Spoken Word Performance

Demonstrating

Exhibit / Contest Lab Activity

Producing / Revising

Execute Multiple Drafts Product

Test for Quality / Integrity

Presenting

Display Calculations & Trends Utilize Visuals

II. Media Produced

Specifics of media produced included:

Internet Media - The process was highlighted on Twitter.

Nature-related - Students engaged in oyster gardening.

Oyster Restoration for the Chesapeake Bay

Deeper Learning Postcard

Student-created product - Students also created and weatherproofed a sign to be placed near the spat at the restoration location.

Technical Writing - Students wrote a grant and received it from International Paper.

Internet Media

Blog

Social Media Page

Digital Content

Video Content

Digital Arts / Graphics

Digital Photography

Computer-based

Spreadsheets & Graphs

Tactile

Building

Nature-related

Gardening

Print Media

Signage

Artistic Composition

Journal / Diary

Technical Writing

Budget, Cost Analysis or ROI

Lab / Research Report

Statistical Analysis

Physical Drawings & Fine Arts

Illustration

Logo, Package Art, Trademark Design

Painting

Product Drawing or Sketch

III. Challenging Problems

Questions

Build a Better World

Express the Intangible

Visually Reveal the World

Self Reflection & Evaluation

Themes

Community Outreach

Environmental

Field-based Work

Research-based

Topics: Physical World

Animals, Pets & Wildlife

Climate, Nature & Natural Resources

Evolution

Topics: Humans in the World

Habitation & Population

Humanitarian Issues

Work & Careers

Topics: Of the Mind

Implications of Decisions

Intelligence & Learning

Oyster Restoration for the Chesapeake Bay

Deeper Learning Postcard

IV. Achieved Literacy Skills

Information / Technology

Distinguish Quality Web Content
Master Uses of Technology
Utilize Spreadsheets / Graphs / Tables

Media

Enhance Multicultural Interaction
Utilize Media Creation Tools

Financial

Recognize Impact of Financial Decisions

Project / Work

Adapt to Ambiguity / Changing Priorities
Address Setbacks / Criticism
Adjust to Schedules / Contexts
Balance Various Roles / Responsibilities
Learn / Develop Expertise
Manage Time / Workload
Take Initiative for Personal Success

Leadership

Balance Diverse Views
Influence through Leadership not Authority
Lead with Respect
Leverage Strengths of Others
Present a Professional Appearance

NEEDS

I. Parameters & Feasibility

Project Timeframe

More than 8 Weeks

Assessment Timeframe

Within a Class Period

of Project Members

Small Group

Grade Level

High School (Grades 9-12)

Authentic Audience / Evaluators

Peers

Parents

Teachers & Administrators

Community Members

Consumers / Clients

Government Officials

Industry Representatives

Special Test Accommodations

Presentation of Materials / Directions

Student Response

Timing / Scheduling

II. Intended Learning Outcomes

Creativity

Brainstorm Change

Design / Create

Elaborate / Expand

Envision / Invent

Improve / Refine

Oyster Restoration for the Chesapeake Bay

Deeper Learning Postcard

Recognize Limits

Communication

Decipher Attitudes / Intentions / Values

Engage Creatively

Instruct

Point of View

Technical Presentation

Terms, Concepts or Calculations

Collaboration

Assume Shared Responsibility

Develop Trust

Encourage Others

Exercise Flexibility

Ignore Distractions

Incorporate Feedback

Manage People / Team

Respond to Failure

Value Contributions Made by Others

Critical Thinking

Assemble Parts of a Whole

Balance / Weigh Alternatives

Clarify Meaning

Critique Reasoning of Others

Draw Analytic Conclusions

Model with Math

Overcome Obstacles

Persuade

Quantify

Rational, Objective Decision-making

Reflect Critically on Learning

Solve Problems Innovatively

Instilled Citizenship Values

Civic Activities / Organizations

Community & Public Issues

Community Service

Lifestyle Respecting Environmental Resources

Personal Responsibility

Sense of Public Duty

Social Responsibility

Societal Influence & Political World

Strong Personal / Work Ethic

Student / School Governance

III. Success Skills & Depth of Knowledge

Cognitive Demand

Identifying / Remembering

Comprehending / Understanding

Applying

Analyzing

Evaluating Creating

Social & Emotional Skills

Self-management

Group-awareness

Group-management

Learning Styles / Intelligences

Bodily / Kinesthetic

Oyster Restoration for the Chesapeake Bay

Deeper Learning Postcard

Interpersonal / Social
Intrapersonal / Introspective
Logical / Mathematical
Naturalist
Verbal / Linguistic
Visual / Spatial
[Assessment Structures / Resources](#)
Checklists
Graphic Organizers
Interviews / Conferences
Journals
Rubrics

IV. CTEs & Disciplines

[Career & Technical](#)
Architecture & Construction
Agriculture & Agribusiness
Education
Energy, Environmental & Natural Resources
Food & Beverage
Health Services
[STEM Research & Applications](#)
[History](#)
Local History
[Mathematics](#)
Statistics
[Sciences](#)
Biology
Earth & Geo Sciences Maritime / Marine Sciences
[Social Sciences](#)
Physical Geography