

READ FIRST

- The goal of this MWEE lesson is to provide students with an authentic and meaningful environmental literacy experience.
- The CCPS Grade 5 Scope & Sequence has been compacted in order to provide the instructional days required to integrate this experience into Marking Periods 1 and 3.
- You may follow the suggested compacting or compact as you prefer as long as assessed material is covered sufficiently to prepare students for the required assessments.
- The MWEE lessons for Marking Period 1 and Marking Period 3 are both written as 7 day lessons, however, you may adjust the number of days from 5 to 7.
- The daily MWEE lessons for Marking Period 1 and Marking Period 3 are not “scripts” but rather “overarching concepts and activities” that provide you with flexibility in delivering content and guiding student activities.
- There are no CCPS assessments for the MWEE lessons. You may create formative assessments. Remember, the goal is to provide a meaningful watershed educational experience for your students.

Course: Science Grade 5 MWEE	Marking Period: 1	Lesson: 1A Issue Definition; 1B Environmental Action Project; 1C Outdoor Experience 5 to 7 Days
<p>Environmental Literacy Standards:</p> <p><i>COMAR 13A.04.17.01</i></p> <p>Environmental Literacy Instructional Programs for Grades Pre-Kindergarten-12.</p> <p>A. Each local school system shall provide in public schools a comprehensive, multi-disciplinary environmental literacy program infused within current curricular offerings and aligned with the Maryland Environmental Literacy Standards.</p> <p>B. The Maryland Environmental Literacy Program shall:</p> <ol style="list-style-type: none"> (1) Provide a developmentally appropriate instructional program with opportunities for outdoor learning experiences; (2) Advance students’ knowledge, confidence, skills, and motivation to make decisions and take actions that preserve and protect the unique natural resources of Maryland and of the Chesapeake Bay, and its watershed; and (3) Provide for the diversity of student needs, abilities, and interests at the early, middle, and high school learning years and shall include all of the Maryland Environmental Literacy Standards as set forth in §C of this regulation. <p>C. Maryland Environmental Literacy Standards.</p>		

- (1) **Environmental Issue Investigation & Action.** Environmentally literate students investigate environmental issues in order to develop and implement local actions that protect, sustain or restore the natural environment.
- (2) **Human Dependence on Earth Systems and Natural Resources.** Environmentally literate students construct and apply understanding of how Earth’s systems and natural resources support human existence.
- (3) **Environmental Impact of Human Activity.** Environmentally literate students construct and apply understanding of the environmental impact of human activities on Earth’s systems and resources.
- (4) **Consequences of Environmental Change on Human Health and Well-Being.** Environmentally literate students construct and apply understanding of the consequences of human-induced environmental change on individual and collective health and well- being.
- (5) **Individual and Collective Responses to Environmental Change.** Environmentally literate students construct and apply understanding of individual, collective, and societal responses to human-induced environmental change.

D. Each local school system shall establish a support system to enable teachers and administrators to engage in high quality professional development in content knowledge, instructional materials, and methodology related to environmental literacy.

E. Student Participation. All students shall have the opportunity to participate in the comprehensive environmental literacy program required by this chapter.

***Objective(s):**

- Environmentally literate students investigate environmental issues in order to develop and implement local actions that protect, sustain or restore the natural environment.
- Environmentally literate students construct and apply understanding of how Earth’s systems and natural resources support human existence.
- Environmentally literate students construct and apply understanding of the environmental impact of human activities on Earth’s systems and resources.
- Environmentally literate students construct and apply understanding of the consequences of human-induced environmental change on individual and collective health and well- being.
- Environmentally literate students construct and apply understanding of individual, collective, and societal responses to human-induced environmental change.

Literacy Component:

[Fifth Grade Language Arts Learning Targets](#)

- Reading narrative texts in the Science discipline
- Reading informational texts in the Science discipline

- Writing informational text pertaining to Science and the environment

Planning/Preparation Notes:**What are Meaningful Watershed Educational Experiences (MWEEs)?**

The Meaningful Watershed Educational Experience (MWEE) is a learner-centered framework that focuses on investigations into environmental issues and leads to informed action. MWEEs are made up of multiple components that include learning both outdoors and in the classroom and are designed to increase environmental literacy by actively engaging students in building knowledge and meaning through hands-on experiences. In these experiences, the core ideas and practices of multiple disciplines are applied to make sense of the relationships between the natural world and society. MWEEs help connect students with their local environment and equip them to make decisions and take actions that contribute to stronger, sustainable, and equitable communities.

MWEE Essential Elements

1. **Issue Definition** - students learn about an environmental issue by planning and conducting background research and investigations. An environmental issue is an environmental problem, often with observable phenomena, to which community members bring a variety of perspectives. To provide structure for their exploration of the issue, students focus on a *diving question* (refer to “Criteria for Effective Driving Questions” listed below and in [An Educator’s Guide to the Meaningful Watershed Educational Experience \(MWEE\)](#) page 5) that is defined by the teacher.
2. **Outdoor Field Experiences** - students explore the driving question and strengthen their connection to the natural world. Within appropriate safety guidelines, students are actively involved in planning and conducting the field investigations, including developing supporting questions to explore the driving question in the field.
3. **Synthesis and Conclusions** - students reflect on each experience and investigation in relation to the issue, and share their claims and conclusions with each other.
4. **Environmental Action Projects** - students identify solutions and develop action projects that directly address the issue within their school, neighborhood, or community. Students are actively engaged in and, to the extent possible, drive the decision-making, planning, and implementation of the action project.

MWEE Supporting Practices

1. **Teacher Facilitation** - MWEEs require that teachers support student learning for the duration of the MWEE, both inside and outside the classroom. Teacher balance roles of facilitation, direct instruction, and coaching to create a student-centered learning

experience where the essential elements of the MWEE come together to support goals for learning and create opportunities for students to take active roles in the learning process.

2. **Learning Integration** - The MWEE is an educational framework that helps teachers meet their learning objectives in an engaging way. MWEEs are not meant to be something “extra”, but rather a means of enriching lessons for deeper student learning while meeting academic standards.
3. **Sustained Experience** - MWEEs rely on teachers to plan and implement a series of rich and connected learning opportunities where each essential element — from asking questions during *issue definition* through implementing *environmental action projects* — builds upon and reinforces the others. To accomplish this, MWEEs are incorporated into a unit or multiple units, where learning happens both in and out of the classroom.
4. **Local Context** - MWEEs have teachers use the local environment and community as a context for learning that is relevant to students’ lives. Situating the MWEE within local contexts promotes learning that is rooted in the unique culture, history, environment, economy, literature, and art of a students’ school, neighborhood, or community. To enrich MWEEs, local resources (e.g. partners, expertise, field sites) should be incorporated.

Resources/Materials:

Web

- [Meaningful Watershed Educational Experiences](#) (Chesapeake Bay Foundation [CBF])
- [An Educator’s Guide to the Meaningful Watershed Educational Experience \(MWEE\)](#) (CBF)
- [NOAH Meaningful Watershed Educational Experience](#) (NOAH)
- [Chesapeake Bay Watershed](#) (CBF)
- [Chesapeake Bay Trust](#) (CBT)
- [The Chesapeake Bay Watershed](#) (MWEE Folder)
- [Chesapeake Bay Tributary Basins](#) (MWEE Folder)
- [Sub-Watersheds of the Chesapeake Bay](#) (CBF)
- [Major River Watersheds of the Chesapeake Bay](#) (CBF)
- [Chesapeake Bay Glossary](#) (CBF)
- [Resources For Teachers and Students](#) (CBF)
- [Student Actions and Projects](#) (CBF)

- [Storm Drain Stenciling](#) (CBF)
- [Watersheds in Cecil County](#) (CC Stormwater Management)
- [Cecil County in the Chesapeake Bay Watershed](#) (Cecil County Stormwater Management)
- [Cecil County Watersheds](#) (Cecil County Stormwater Management)
- [Stormwater Pollution Education](#) (Cecil County Stormwater Management)
- [How's My Waterway?](#) (EPA)
- [Project WET](#) (Maryland Department of Natural Resources)
- [Projects Wild](#) (Maryland Department of Natural Resources)
- [Watersheds and Drainage Basins](#) (USGS)

Print

- *A River Ran Wild* by Lynne Cherry
A River Ran Wild is the True Story of the History, the Polluting and the Clean-up of the Nashua River.
- *Letting Swift River Go* by Jane Yolen
- *Awesome Chesapeake: A Kid's Guide to the Bay* by David Owen Bell
- *Watershed Adventures of a Water Bottle* by Jennifer Chambers
Watershed Adventures of a Water Bottle tells the story of a water bottle's journey in the Chesapeake Bay watershed and Atlantic Ocean. Upon reaching a storm drain, the personified water bottle travels the streams and rivers of Washington, D.C., meeting animals along its ride.
- *Chesapeake Bay Activity Book* (accessed at <https://aambpublicoceanservice.blob.core.windows.net/oceanserviceprod/kids/cbbook.pdf>)
- *PBL in the Elementary Grades* from the Buck Institute for Education
Step-by-step guidance, tools, and tips for standards-focused K-5 projects
- *PBL Starter Kit* from the Buck Institute for Education
To-the-point advice, tools, and tips for your first project in middle or high school

- *Project Based Learning Handbook* from the Buck Institute for Education
A guide to standards-focused project based learning for middle and high school teachers

Vocabulary:

- **watershed** - a land area that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean
- **sub-watershed** - larger watersheds are made up of numerous smaller watersheds, which are then called sub-watersheds or sub-basins. Sub-watersheds drain into the watershed.
- **Chesapeake Bay Watershed** - all tributaries, backwaters, and side channels and their watersheds that drain into the Chesapeake Bay in the states of Delaware, Maryland, The NRCS and its partners New York, Pennsylvania, Virginia, and West Virginia as well as the District of Columbia
- **affect** - (verb) to act on and cause a change in (someone or something)
- **effect** - (noun) a change which is a result or consequence of an action or other cause
- **action project** - an ambitious project created by students aimed at addressing a specific environmental issue
- **Driving Question** - (also called compelling questions) pose simply stated real world dilemmas. They pose predicaments that students find interesting and actually want to answer. The question drives students to discuss, inquire, and investigate the topic. It should push them toward a production or solution.

Criteria for Effective Driving Questions

[An Educator's Guide to the Meaningful Watershed Educational Experience \(MWEE\)](#)

- Supports learning objectives
- Helps initiate and focus inquiry
- Relevant and related to everyday life
- Provide opportunity for stewardship and civic action
- Thought-provoking and intellectually engaging
- Open-ended (i.e., typically will not have a single, final, and correct answer)
- Promotes further inquiry (i.e., raises additional questions)
- Encompasses both natural and social systems and topics
- Requires students to revisit the problem frequently as knowledge and understanding evolve

→ Calls for higher-order thinking, including analysis, inference, prediction, and evaluation

Possible MWEE Projects:

Restoration or protection: Action that assists in the recovery or preservation of a watershed or related ecosystem that has been degraded, damaged, or destroyed.

- Examples:
 - Plant or restore protective vegetation/trees
 - Restore a local habitat
 - Remove invasive species
 - Clean up litter at local beaches, parks, or school grounds
 - Develop a school garden, natural history area, community garden, or other sustainable green space
 - Install rain gardens to help manage stormwater

Everyday choices: Actions that reduce human impacts on watersheds and related ecosystems and offer ways to live more sustainably.

- Examples:
 - Refuse/reduce/reuse/recycle
 - Monitor and save water in the face of a potential drought or reduction in water availability
 - Compost food or yard waste
 - Research and implement energy efficient strategies or energy alternatives at school and/or at home

Community engagement: Actions that inform others about how to address community-level environmental issues.

- Examples:
 - Give presentations to local organizations
 - Organize community events
 - Record or broadcast public service announcements
 - Share information on social media
 - Post flyers in community
 - Share posters at community events/fairs/festivals
 - Mentoring

Civic engagement: Actions that identify and address issues of public concern. Students acting alone or together to protect societal values or make a change or difference in a student’s school, neighborhood, or community.

- Examples:
 - Present to school principal or school board
 - Attend, speak, or present at town meetings
 - Write to local or state decision makers or elected officials

Instructional Sequence of Lesson

Day 1

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> ● Develop understanding of a watershed ● Develop understanding of the Chesapeake Bay Watershed, its proximity to the school and community, and its importance to the population that live within its borders ● Develop understanding of a sub-watershed, the 14 sub-watersheds in Cecil County, and the local sub-watershed (sub-watershed in which the school is located) 	<ul style="list-style-type: none"> ● What the term <i>watershed</i> refers to ● The Chesapeake Bay is a major watershed in the United States ● Specific facts about the Chesapeake Bay Watershed ● What the term <i>sub-watershed</i> refers to ● There are 14 sub-watershed in Cecil County ● The sub-watershed in which your school is located 	<ul style="list-style-type: none"> ● What a watershed is ● Why the Chesapeake Bay is considered a major watershed ● Why the Chesapeake Bay Watershed is so important ● What a sub-watershed is ● How sub-watersheds are connected to the Chesapeake Bay Watershed ● Everywhere (including every school) in Cecil County is located in a sub-watershed that flows into the Chesapeake Bay 	<ul style="list-style-type: none"> ● Explain what a watershed is ● Identify the Chesapeake Bay as a major watershed ● Recall facts pertaining to the Chesapeake Bay Watershed ● Explain what a sub-watershed is ● Recall that there are 14 sub-watersheds in Cecil County ● Name the sub-watershed in which the school is located

Lesson	Concepts and Activities	Resources
<p>MP1-1/7.</p>	<p>Lesson Objective: Students will understand what watersheds and sub-watersheds are and the connection between the local sub-watershed and the Chesapeake Bay Watershed.</p> <ul style="list-style-type: none"> ● Develop an understanding of a watershed ● Develop an understanding of a sub-watershed ● Explore the Chesapeake Bay Watershed ● Explore the 14 sub-watersheds in Cecil County ● Identify the sub-watershed your school is located within ● Explain the physical connection between local sub-watershed and the Chesapeake Bay Watershed 	<ul style="list-style-type: none"> ● Chesapeake Bay Watershed (CBF) ● Chesapeake Bay Trust (CBT) ● The Chesapeake Bay Watershed (MWEE Folder) ● Chesapeake Bay Tributary Basins (MWEE Folder) ● Sub-Watersheds of the Chesapeake Bay (CBF) ● Major River Watersheds of the Chesapeake Bay (CBF) ● Chesapeake Bay Glossary (CBF) ● Resources For Teachers and Students (CBF) ● Watersheds in Cecil County (CC Stormwater Management) ● Cecil County in the Chesapeake Bay Watershed (CC Stormwater Management) ● Cecil County Watersheds (CC Stormwater Management) ● Watersheds and Drainage Basins (USGS) ● <i>Awesome Chesapeake: A Kid's Guide to the Bay</i> by David Owen Bell

		<ul style="list-style-type: none"> • <i>Watershed Adventures of a Water Bottle</i> by Jennifer Chambers Watershed Adventures of a Water Bottle tells the story of a water bottle's journey in the Chesapeake Bay watershed and Atlantic Ocean. Upon reaching a storm drain, the personified water bottle travels the streams and rivers of Washington, D.C., meeting animals along its ride. • <i>Chesapeake Bay Activity Book</i> (accessed at https://aambpublicoceanservice.blob.core.windows.net/oceanserviceprod/kids/cbbook.pdf)
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Day 2

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> • Develop an understanding of how the Chesapeake Bay Watershed is connected to and affect by the local sub-watershed • Develop an understanding of how natural factors (e.g. invasive species, change in rainfall) and human factors 	<ul style="list-style-type: none"> • All sub-watersheds in Cecil County flow into the Chesapeake Bay • Because the local watershed and the Chesapeake Bay Watershed are interconnected, what happens in the local watershed affect the Chesapeake Bay 	<ul style="list-style-type: none"> • Even though it can't be seen, the water in the local sub-watershed will eventually flow to the Chesapeake Bay • The Chesapeake Bay Watershed and the local sub-watersheds are interconnected 	<ul style="list-style-type: none"> • Explain how water moves from one location to the Chesapeake Bay • Explain how what happens locally (near the school) affects the Chesapeake Bay • Explain natural and human factors that affect the local

<p>(e.g. population, industry, agriculture, recreation) affect the local sub-watershed and the Chesapeake Bay Watershed</p> <ul style="list-style-type: none"> Explore the “health” of the local sub-watershed 	<ul style="list-style-type: none"> There are many natural factors and human factors that affect the local watershed and the Chesapeake Bay Watershed There are ways to determine the health of the local sub-watershed 	<ul style="list-style-type: none"> Natural factors (e.g. invasive species, change in rainfall) and human factors (e.g. population, industry, agriculture, recreation) affect the local sub-watershed and the Chesapeake Bay Watershed Because it is connected to the Chesapeake Bay Watershed, it is important to understand the health of the local sub-watershed 	<p>watershed and the Chesapeake Bay Watershed</p> <ul style="list-style-type: none"> Name natural factors and human factors that affect the local watershed and the Chesapeake Bay Watershed Use tools to investigate the health of the local sub-watershed
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Lesson	Concepts and Activities	Resources
<p>MP1-2/7</p>	<p>Lesson Objective: Students will understand that the local sub-watershed and the Chesapeake Bay Watershed are connected and the health of the local watershed affects the health of the Chesapeake Bay Watershed.</p> <ul style="list-style-type: none"> Develop an understanding that the local sub-watershed and the Chesapeake Bay Watershed are connected in more ways than just physically, e.g <ul style="list-style-type: none"> The watersheds are connected by fluctuating water volume. A heavy rain or drought locally affects the amount of water in the Chesapeake Bay. The watersheds are connected by the health of the water in them. Since the water in the local watershed flows into the Chesapeake Bay, a healthy sub-watershed will provide healthy water while an unhealthy local watershed will provide unhealthy water. Discuss how the health of a watershed includes factors such as: 	<ul style="list-style-type: none"> Stormwater Pollution Education (CC Stormwater Management) How’s My Waterway? (EPA) <i>A River Ran Wild</i> by Lynne Cherry A River Ran Wild is the True Story of the History, the Polluting and the Clean-up of the Nashua River.

	<ul style="list-style-type: none"> ○ chemical pollution ○ trash pollution ○ soil runoff ○ erosion ○ invasive species of plants and animals <ul style="list-style-type: none"> ● Explore the health of the local sub-watershed and the bodies of water contained in it. 	
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Day 3

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> ● Develop the Driving Question. ● Develop a list of possible action projects ● Visit location(s) included in project 	<ul style="list-style-type: none"> ● What the term <i>Driving Question</i> means ● There are different ways people can positively affect the local sub-watershed ● What the term <i>action project</i> means ● There are different local places where an action project can happen 	<ul style="list-style-type: none"> ● The importance of having a clear and focused Driving Question ● Positively affecting the local sub-watershed will positively affect the Chesapeake Bay Watershed ● Sometimes a planned action project is used to positively affect the local sub-watershed ● An action project must be doable and positive in it expected results 	<ul style="list-style-type: none"> ● Develop a Driving Question ● Explore possible ways to positively affect the local sub-watershed ● Create a list of possible action projects ● Consider possible action projects
Lesson	Concepts and Activities		Resources

<p>MP1-3/7</p>	<p>Lesson Objective: Students will understand what a Driving Question is. Students will develop a list of possible <i>action projects</i>.</p> <ul style="list-style-type: none"> ● Develop an understanding of a Driving Question <ul style="list-style-type: none"> ○ Based on an observable phenomena ○ Questions raised by the observation of the phenomena ○ “What do you see? What do you wonder?” <ul style="list-style-type: none"> ■ e.g. Glaciers are melting. Why are glaciers melting? ■ e.g. Canadian Geese are not flying as far south in the winter? What are they not flying as far south? ● Brainstorm possible <i>action projects</i> that can be accomplished by the students by: <ul style="list-style-type: none"> ○ Walking the schoolshed (the school, school property, and the area around it) ○ Using Google Earth to take an aerial tour of the schoolshed 	<ul style="list-style-type: none"> ● See Criteria for Effective Driving Questions above ● See Possible MWEE Projects above ● Google Earth ● <i>PBL in the Elementary Grades</i> from the Buck Institute for Education Step-by-step guidance, tools, and tips for standards-focused K-5 projects
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Day 4

<p>MWEE Essential Element Focus</p>	<p>Know</p>	<p>Understand</p>	<p>Do</p>
<ul style="list-style-type: none"> ● Select action project ● Develop secondary project questions ● Conduct research ● Leverage partnership(s) with local resources and experts 	<ul style="list-style-type: none"> ● The action project selected ● What is the Driving Question and what are secondary questions that are connected to the Driving Question and the action project ● Conducting research is an important step in the action project 	<ul style="list-style-type: none"> ● It is important to be clear and specific when identifying an action project ● Along with the Driving Question, there are secondary questions that are important 	<ul style="list-style-type: none"> ● Select an action project ● Create secondary questions ● Research the problem and possible solutions ● Identify resources ● Use resources to better understand the problem and possible solutions

	<ul style="list-style-type: none"> • There are resources that can be used to research and conduct the action project 	<ul style="list-style-type: none"> • To create a successful action project it is important to fully understand the problem • Successful action projects use many different resources to help understand the problem and to develop possible solutions 	
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Lesson	Concepts and Activities	Resources
<p>MP1-4/7</p>	<p>Lesson Objective: Students will select an <i>action project</i> and begin conducting research.</p> <ul style="list-style-type: none"> • Guide students in selecting an action project that is doable within the constraints of: <ul style="list-style-type: none"> ○ time ○ resources ○ ability ○ location • Guide students in developing a Driving Question • Explore the possibility of using outside resources such as the Cecil County Stormwater Management Department • Guide students in beginning to research the observed phenomena and the Driving Question <ul style="list-style-type: none"> ○ print resources ○ online resources (see Resources/Materials above) ○ library materials 	<ul style="list-style-type: none"> • See Criteria for Effective Driving Questions above • <i>PBL in the Elementary Grades</i> from the Buck Institute for Education Step-by-step guidance, tools, and tips for standards-focused K-5 projects • Student Actions and Projects (CBF) • Storm Drain Stenciling (CBF) • Watersheds in Cecil County (CC Stormwater Management) • Cecil County in the Chesapeake Bay Watershed (CC Stormwater Management) • Cecil County Watersheds (CC Stormwater Management) • Stormwater Pollution Education (CC Stormwater Management)

		<ul style="list-style-type: none"> • Project WET (Maryland Department of Natural Resources) • Projects Wild (Maryland Department of Natural Resources)
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Day 5

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> • Read narrative resources • Investigate informational resources 	<ul style="list-style-type: none"> • There are various types of resources: <ul style="list-style-type: none"> ○ informational resources ○ narrative resources ○ digital resources ○ human resources • Watershed problems happen everywhere 	<ul style="list-style-type: none"> • Successful action projects included utilizing resources to build and understanding of eh problema and possible solutions • Most local problems have similarly occurred elsewhere and studying those events will help with our action project 	<ul style="list-style-type: none"> • Use various resources to research the problem and possible solutions • Examine how the local problem may exist elsewhere and how it was addressed
Lesson	Concepts and Activities		Resources
<p>MP1-5/7</p>	<p>Lesson Objective: Students will conduct research pertaining to the <i>action project</i>.</p> <ul style="list-style-type: none"> • Guide students in continuing to research the observed phenomena and the Driving Question <ul style="list-style-type: none"> ○ print resources ○ online resources ○ library materials • Focus students' efforts on: 		<ul style="list-style-type: none"> • See Resources/Materials above

	<ul style="list-style-type: none"> ○ What are they going to do? ○ How are we going to do it? ○ What is needed to do it? ● The research should be for the purpose of developing the outdoor experience. 	
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Day 6

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> ● Develop data collection tools appropriate for action project 	<ul style="list-style-type: none"> ● Data is collected in and action project ● What data is important 	<ul style="list-style-type: none"> ● In order to determine how successful the action problem is, it is important to accurately collect data that demonstrates the effects of the action project 	<ul style="list-style-type: none"> ● Determine what data is important to collect ● Create a data collection tool

Lesson	Concepts and Activities	Resources
MP1-6/7	<p>Lesson Objective: Students will develop data collection tools for the <i>action project</i>.</p> <ul style="list-style-type: none"> ● Discuss how students will know the effects of their <i>action project</i>: <ul style="list-style-type: none"> ○ What changed? e.g.: <ul style="list-style-type: none"> ■ the amount of loose trash by the creek ■ invasive plant species ■ denuded bare ground ○ How much did it change? e.g.: <ul style="list-style-type: none"> ■ the number of pounds of trash per 10 square meters before and after the action project 	<ul style="list-style-type: none"> ● <i>PBL in the Elementary Grades</i> from the Buck Institute for Education Step-by-step guidance, tools, and tips for standards-focused K-5 projects

	<ul style="list-style-type: none"> ■ the number of invasive plants per 10 square meters before and after the action project ■ the total area of denuded bare ground before and after planting native plants <ul style="list-style-type: none"> ● Guide students in selecting one or two observable changes they will use to determine the effects of their <i>action project</i> ● After students have determined the data they will collect, guide them in developing a data collection tool, such as: <ul style="list-style-type: none"> ○ written journal ○ photo journal ○ audio/video journal ○ datasheet 	
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Day 7

MWEE Essential Element Focus	Know	Understand	Do
<ul style="list-style-type: none"> ● Begin action project 	<ul style="list-style-type: none"> ● What are the steps in conducting the action project ● What tools and materials are needed 	<ul style="list-style-type: none"> ● Clearly planning the steps of the action project and the tools and materials needed will help the action project be successful 	<ul style="list-style-type: none"> ● Develop the steps i the project ● List the tools and materials required ● Conduct the action project

Lesson	Concepts and Activities	Resources
MP1-7/7	<p>Lesson Objective: Students will begin the <i>action project</i>.</p> <ul style="list-style-type: none"> ● Assist students with conducting the <i>action project</i>. 	

	<ul style="list-style-type: none"> • The duration of the <i>action project</i> will depend on the project selected. Some projects may be completed in one or two days. Some projects may continue into Marking Period 3. 	
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- ★ *The template includes items listed as minimum requirements listed on Page 11, in Article 6.16.1.2 in the Negotiated Agreement Between The Board of Education of Cecil County and The Cecil County Classroom Teachers Association. This article states: *Plans shall specify the daily outcomes developed from indicators and/or objectives found in the Cecil County Public School approved curriculum, the instructional activities that shall bring these to fruition, and how student achievement of the daily outcomes shall be evaluated.*
- ★ Refer to the *Text Complexity Grade Bands and Associated Lexile Ranges* table in the *CCPS Lesson Planning Template Guiding Document* for grade specific lexile ranges.
- ★ Every activity does not need an accompanying formative assessment.

Cecil County Public Schools