

Site Analysis



Grade	6 th
Time	45 minutes
Overview	Students use observation and process skills to consider how human land use impact watershed and watershed systems.
Objectives	<p><u>Understanding:</u> Students realize and comprehend that how we use the land affects the health of our local watershed.</p> <p><u>Skills & Processes:</u> Students develop observation skills and infer impacts of land uses on ecosystems. Conducting field observations of land use and consider impacts of human actions. Students examine where water comes from and where it goes.</p> <p><u>Values:</u> Students develop an appreciation for land use and sustainable management and the impact that has on a watershed (in our case, of the Chesapeake Bay).</p>
Essential Question	How does our use and management of the land affect water flow and quality?
Primary VA SOL	Science (2018): 6.1, 6.7, 6.9
Related VA SOL	Science (2018): 6.5 and English (2017) 6.1, 6.4

<p><u>Materials</u></p> <ul style="list-style-type: none">• Clipboard• Pencil• Datasheet• Landscape• Large Whiteboard & Markers (optional)	<p><u>Special Safety</u></p> <p>Assess the walkway/trails before activity (look for holes in ground and other potential impediments). At Blandy, the two sites will be Lake Georgette and the rain garden next to the parking area.</p>
<p><u>Set Up</u></p> <ol style="list-style-type: none">1. Place flags at the site analysis locations.2. NOTE: Depending on time and other activities, you may choose to visit two sites to compare and contrast the land use at the two sites. It will depend on your students and your individualized learning goals.	

Instructional Strategy	
Recommended Grouping/Instructional style	Whole class for introduction then small groups or individual.
Steps	<ol style="list-style-type: none"> 1. Instruct students to find the corresponding data sheets in their student journals. 2. Model: At the first location ask students to think-pair-share with a partner for two minutes. Take a moment to slowly look around the landscape and give three examples of how the land is being used. Bring the class together to share student observations (optional whiteboard to jot down responses). Based on responses, guide the discussion to consider human impacts, water flow, and land usage. 3. Student Observations: Instruct students that they will travel to two sites and using the data sheet, record careful observations of the land, considering how water flows, erosion, and land use. Distribute clipboards and data sheets. Take a few minutes to review the questions before they ask instructors for clarifications. Travel to Lake Georgette then to the parking lot near the Rain Garden. At each site, encourage students to ask questions of one another and the instructor about the land use, structures, etc. as conversation will help to clarify human impacts. 4. Conclusion: Give students a few minutes to review their data sheets. What did they see as potential erosion problems? What of the human land uses can alter water flow and create/reduce erosion?

- Extensions
1. Compare land use at Blandy to sites at the school, or at student's places of residence.
 2. Conduct a [Schoolyard Report Card or Survey](#)

Site 1 Name:

Describe the weather. (circle and/or write in):

Sunny Cloudy Rainy Windy **Temp:** Hot Cold Cool

Is this a wetland? Yes or No (If no, skip this section)

If so, what type of wetland is it? Swamp Marsh Bog

If not a wetland, describe the habitat?

Water Clarity (if this site is a wetland and water is present):

Clear Cloudy Other (Describe):

Where is the water coming from? (Think about the direction of water flow and the source of water.)

Where is the water going?

What evidence of _____ do you observe? How do you know?

- Weathering
- Erosion
- Deposition

How is the land being used here? For what purpose and why? Be specific.

Land Use Feature	Present?	Human Impacts: Positive or Negative?	Explain
Buildings		- +	
Roads		- +	
Paths		- +	
Agricultural		- +	
Gardens		- +	
Other (describe)		- +	

Site 1: Organisms and Adaptations

Find three different organisms (or evidence of them) in this habitat.

Observe: What does the organisms look like (draw or describe)? What is an adaptation it has that helps it to survive in this habitat? If you can't find an organism, listen for sounds of animals, and look for clues such as tracks, scat, or holes that can be used for identification and record your evidence.

Producer	
Draw or describe	
An adaptation the organism has to help it survive	

Consumer	
Draw or describe	
An adaptation the organism has to help it survive	
Is it a(n): (circle→)	Omnivore herbivore carnivore

Decomposer	
Draw or describe	
An adaptation the organism has to help it survive	
It is a(n) (circle→)	Plant animal fungus Other (Describe)

Site 2 Name:

Describe the weather. <i>(circle and/or write in):</i>			
Sunny	Cloudy	Rainy	Windy
Temp: Hot		Cold	Cool
Is this a wetland? Yes or No (If no, skip this section)			
If so, what type of wetland is it?		Swamp	Marsh Bog
If not a wetland, describe the habitat?			
Water Clarity (if this site is a wetland and water is present):			
Clear	Cloudy	Other (Describe):	
Where is the water coming from? (Think about the direction of water flow and the source of water.)			
Where is the water going?			
What evidence of _____ do you observe? How do you know?			
<ul style="list-style-type: none"> • Weathering • Erosion • Deposition 			
How is the land being used here? For what purpose and why? Be specific.			
Land Use Feature	Present?	Human Impacts: Positive or Negative?	Explain
Buildings		- +	
Roads		- +	
Paths		- +	
Agricultural		- +	
Gardens		- +	
Other (describe)		- +	

Site 2: Organisms and Adaptations

Find three different organisms (or evidence of them) in this habitat.

Observe: What does the organisms look like (draw or describe)? What is an adaptation it has that helps it to survive in this habitat? If you can't find an organism, listen for sounds of animals, and look for clues such as tracks, scat, or holes that can be used for identification and record your evidence.

Producer	
Draw or describe	
An adaptation the organism has to help it survive	

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It is a(n) (circle→)	Plant animal fungus Other (Describe)