



Performance Task: Bioblitz!



PART 1: Research

Student Directions

Your assignment:

Wow! You are so lucky!! Your class will take part in a bioblitz right in your schoolyard or outdoor learning site. To prepare for your adventure, you will read an article, watch a video, and explore a Pocket Guide. Then you will answer three research questions. Next, you will conduct your bioblitz! Finally, you will write an essay explaining what a bioblitz is, what happens on a bioblitz, and why a bioblitz is important. Have fun exploring nature!!

Steps you will follow:

To plan and compose your essay, you will do the following:

1. Read an article and a pocket guide.
2. Answer three questions about the sources.
3. Conduct a schoolyard bioblitz.
4. Plan and write your essay.



Directions for beginning:

You will now read the article and the pocket guide. Then you will watch a video. Take notes because you may want to refer to your notes while answering the research questions and writing your essay. You can look at the sources as often as you like.

Source Information:

- Source #1: Article: *Let's Learn about Bioblitz!* N. Skerritt, 2018, for the Pacific Education Institute
- Source #2: Video: *Imani's Bioblitz* (3:22)
<https://www.youtube.com/watch?v=ukjPa1ck5T0>
- Source #3: Booklet: *Bioblitz Pocket Guide* from [National Geographic](#)



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Note-taking Tool

Source	What a bioblitz is	How a bioblitz works	Why a bioblitz is important
Source #1: Article Let's Learn about Bioblitz			
Source #2: Video Imani's Bioblitz			
Source #3: Booklet Bioblitz Pocket Guide			



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Source #1: Article

Let's Learn about Bioblitz!

Written by Nancy Skerrett for the Pacific Education Institute

Studying nature can be so much fun! We can learn more about the world outdoors by watching, listening, and recording what we see. One special way to study nature is to take part in a bioblitz. So, what is a bioblitz anyway and how can you get involved?

Have you ever done an **inventory**? Maybe you have listed the books you own, the toys you have or the movies you have seen. When we do an inventory, we learn about our stuff. We learn what we already have or what we might want or need. Inventories help us to keep track of things in our environment and give us useful information.



A bioblitz is a type of **inventory**. This time we count plants and animals that live in our environment. We can count these to better understand our natural world. The more **diverse** the plants and animals we find, the healthier is our environment.

What happens on a bioblitz?

A bioblitz takes place in a short amount of time, usually a 24-hour period. Scientists, community volunteers, and students like yourselves help with the bioblitz. These people record the various plants and animals that they find in a specific location. Usually, people start with a map of the area. They are asked to make observations and record what they see. They may use a notebook or a checklist for identifying plants and animals. Keeping count is very important! The scientists want to know how the environment changes over time.

Inventory: A list of different things and how many of each

Diverse: Lots of different kinds of plants and animals

Why is a bioblitz important?

Scientists want to keep track of the environment to make sure plants and animals are not disappearing each year. We can tell the health of our natural environment by tracking the population of plants and animals over time. Scientists keep detailed records of the number and type of the different **species**. When there are many kinds of plants and animals, we can see that the environment is healthy. It can support lots of different types of life.

Species: The different types of plants and animals

When there are only a few types of plants and animals, the environment may be threatened. Food may not be available for the animals. The plants could be dying. Scientists want to know what is happening so that people might make changes to protect the health of the natural world.



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How can you help?

Check to see if there are bioblitzes scheduled for your area. Often, students are invited to help with the inventory of nature. You may be able to volunteer for a science sponsored bioblitz. At these, people collect data and give their data to a national data base. Changes over time are monitored.

If there are no sponsored bioblitzes in your area, consider conducting your own! You will need a place such as your backyard, a local park or even your schoolyard. Talk with your teachers about a bioblitz and ask for their help with creating a way to collect the data. Make a drawing of the area for your bioblitz and record observations. Keep count of the different plants and animals so that you can compare your data over time. There are websites that encourage students like yourselves to conduct bioblitzes. Check out these sites and learn about more opportunities!

What's next?

Here are three things you can do to learn more about nature:

1. Practice making close and careful observations of the plants and animals in your environment.
2. Keep a notebook or checklist to record data about your observations.
3. Share your information with your family or your teachers

You are practicing the skills of a scientist when you make observations, record your data, and share your information with others. A bioblitz is an exciting way to learn more about your natural world- and to think and act like a scientist!





Performance Task: Bioblitz!

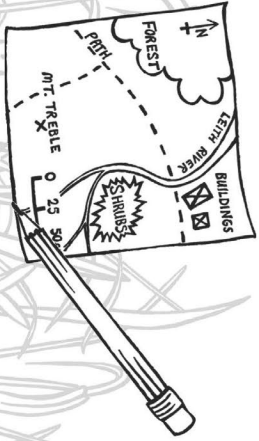


4

Make a Map

Map what you observed and where you observed it. To survive, plants and animals depend on natural resources such as land, water, and other species. Maps that show how these are related can help protect biodiversity.

Make your map inside!



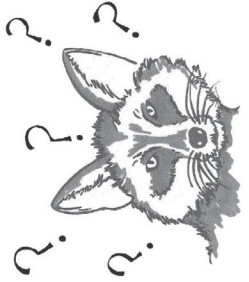
3

Identify Species

Step 1: Find it.

Step 2: Figure it out!

An estimated two million species are living on Earth. Which one is this? Study the specimen and observe physical characteristics such as size, shape, color, and markings. Check existing sources to complete the identification.



fold

5

Keep Count!

Keep a count or "tally" of the different plant and animal species you identify. An area's biodiversity can be measured by the total number of different species found.



2

Record Observations

Share what you have learned.

Draw pictures and maps, or take notes, photographs, video, or audio recordings. Include details such as size, color, shape, texture, sound, smell, and location.



fold

1

Make Observations

What's this place like? What lives here? Use your senses to find out.

You can see plants and sometimes smell them. You can see animals and sometimes hear them. Search carefully for hidden signs of animal life such as nests, burrows, and animal tracks.



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bioblitz

POCKET GUIDE

Pocket Guide to Field Skills

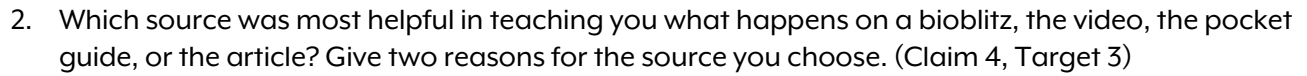
During a BioBlitz, scientists and volunteers find and identify as many plants and animals as they can. How is this done?

Look Inside!

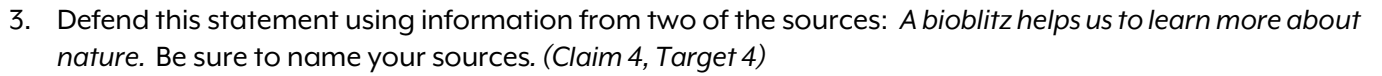




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Performance Task: Bioblitz!



Part 2: Field Investigation Conducting a Schoolyard Bioblitz

Teacher Directions:

Explain to the students that they will follow the steps outlined in the *Bioblitz Pocket Guide* to collect data about their school site. Take the students on a walking tour of the site showing groups of students where they will collect their data. Ask students to predict what plants and animals they might see in their schoolyard. You may want to show the students pictures of some of the species they may find in the schoolyard. The students can use these pictures to help them to identify the plants and animals they observe. Another source for plant identification is the app called *PlantSnap* (www.plantsnap.com).

Student Directions:

1. **Make Observations:** What do you observe in your assigned area? What lives here? Use your senses to discover the plants and animals call this area home.
2. **Record your observations:** Draw pictures of what you see and/or take photos of what you see. Use a checklist to record the types of plants and animals that you find.
3. **Identify Species:** Study the plants and animals. What do you notice that could help you to identify them? Use resources to find pictures of what you see and use these pictures to name your species.
4. **Make a Map:** Map what you observe including land features like ponds, streams, buildings, parking lots, and so on. Creatures need natural resources like land, water, and other species. Your map can help you to see how the plants and animals use the environment for their survival.
5. **Keep Count:** Keep a tally of the different plant and animal species in your assigned area. Record the data from all of the teams onto a chart. Date the chart so that you can compare your data over time.
6. **Reflect:** What interested you most about the bioblitz? What surprised you? What did you learn about the area you studied??





PART 3: Essay

Student Directions:

Review your notes and sources, and plan, draft, and revise your essay. Now read your assignment and the information about how your essay will be scored, and then begin your work.



Your Assignment:

Another class at your school is interested in participating in a bioblitz. You have been asked to share with these students what a bioblitz is, what happens on a bioblitz, and why a bioblitz is important. Use information from the video, the pocket guide, the article and your own experience from the schoolyard bioblitz. Be sure to name your sources in your essay. You may use the Essay Organizer to help you to plan your writing.

How your essay will be scored:

The people scoring your essay will be assigning scores for:

1. **Statement of Purpose/Focus**– how well you clearly state and maintain your controlling idea or main idea.
2. **Organization**– how well the ideas progress from the introduction to the conclusion using effective transitions and how well you stay on topic throughout the essay.
3. **Elaboration of Evidence**– how well you provide evidence from sources about your topic and elaborate with specific information.
4. **Language and Vocabulary**– how well you effectively express ideas using precise language that is appropriate for your audience and purpose.
5. **Conventions**– how well you follow the rules of usage, punctuation, capitalization, and spelling.

Now begin work on your essay.

- Review your notes
- Plan your essay using the template provided
- Write your essay
- Revise and edit for a final draft



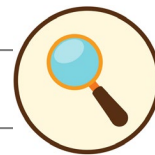


Planning My Essay

Essay Components:
Introduction: Capture the reader’s interest!
Explain what a bioblitz is:
Explain how a bioblitz works:
Explain why a bioblitz is important:
Conclusion:



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Informative / Explanatory Performance Task Writing Rubric (Grades 3-5)



Score	4	3	2	1
Statement of Purpose/Focus	<p>The response is fully sustained and consistently and purposefully focused:</p> <ul style="list-style-type: none"> controlling or main idea of a topic clearly communicated, and the focus is strongly maintained for the purpose, audience, and task 	<p>The response is adequately sustained and generally focused:</p> <ul style="list-style-type: none"> controlling or main idea of a topic is clear, and the focus is mostly maintained for the purpose, audience, and task 	<p>The response is somewhat sustained and have a minor drift in focus:</p> <ul style="list-style-type: none"> controlling or main idea may be somewhat unclear, or the focus may be insufficiently sustained for the purpose, audience, and task 	<p>The response has little or no discernable organizational structure:</p> <ul style="list-style-type: none"> controlling or main idea may be confusing or ambiguous; response may be too brief or the focus may drift from the purpose, audience, and task
Organization	<p>The response has a clear and effective organizational structure creating unity and completeness:</p> <ul style="list-style-type: none"> consistent use of a variety of transitional strategies to clarify the relationship between and among ideas effective introduction and conclusion logical progression of ideas from beginning to end; strong connections among ideas with some syntactic variety 	<p>The response has an evident organizational structure and a sense of completeness, though there may be minor flaws and some ideas may be loosely connected:</p> <ul style="list-style-type: none"> adequate use of transitional strategies with some variety to clarify the relationship between and among ideas adequate introduction and conclusion progression of ideas from beginning to end; strong connections among ideas 	<p>The response has an inconsistent organizational structure, and flaws are evident:</p> <ul style="list-style-type: none"> inconsistent use of transitional strategies and/or little variety introduction and conclusion, if present, may be weak uneven progression of ideas from beginning to end; and/or formulaic; inconsistent or unclear connections between and among ideas 	<p>The response may be related to the topic but may provide little or no focus:</p> <ul style="list-style-type: none"> few or no transitional strategies are evident introduction and/or conclusion may be missing frequent extraneous ideas may be evident; ideas may be randomly ordered or have an unclear progression
Elaboration of Evidence	<p>The response provides thorough and convincing support/evidence for the controlling idea and supporting idea(s) that includes the effective use of sources, facts, and details:</p> <ul style="list-style-type: none"> comprehensive evidence from sources is integrated; references are relevant and specific effective use of a variety of elaborative techniques* 	<p>The response provides adequate support/evidence for the controlling idea and supporting idea(s) that includes the use of sources, facts, and details:</p> <ul style="list-style-type: none"> adequate evidence from sources is integrated, some references may be general adequate use of some elaborative techniques* 	<p>The response provides uneven, cursory support/evidence for the controlling idea and supporting idea(s) that includes partial or uneven use of sources, facts, and details:</p> <ul style="list-style-type: none"> some evidence from sources may be weakly integrated, imprecise, or repetitive; references may be vague weak or uneven use of elaborative techniques*; development may consist primarily of source summary 	<p>The response provides minimal support/evidence for the controlling idea and supporting idea(s) that includes little or no use of sources, facts, and details:</p> <ul style="list-style-type: none"> evidence from the source material is minimal or irrelevant; references may be absent or incorrectly used minimal, if any, use of elaborative techniques*
Language	<p>The response clearly and effectively expresses ideas, using precise language:</p> <ul style="list-style-type: none"> vocabulary is clearly appropriate for the audience and purpose effective, appropriate style enhances content 	<p>The response adequately elaborates ideas, employing a mix of precise and more general language:</p> <ul style="list-style-type: none"> vocabulary is generally appropriate for the audience and purpose generally appropriate style is evident 	<p>The response expresses ideas unevenly, using simplistic language:</p> <ul style="list-style-type: none"> vocabulary use is uneven or somewhat ineffective for the audience and purpose inconsistent or weak attempt to create appropriate style 	<p>The response is vague, lacks clarity, or is confusing:</p> <ul style="list-style-type: none"> vocabulary is limited or ineffective for the audience and purpose little or no evidence of appropriate style

Score	2	1	0
Conventions	<p>The response demonstrates an adequate command of conventions:</p> <ul style="list-style-type: none"> adequate use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling 	<p>The response demonstrates a partial command of conventions:</p> <ul style="list-style-type: none"> limited use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling 	<p>The response demonstrates little or no command of conventions:</p> <ul style="list-style-type: none"> infrequent use of correct sentence formation, punctuation, capitalization, grammar usage, and spelling

NS Unintelligible, in a language other than English, off-topic, copied text. (Off-purpose writing will still receive a score in Conventions.)

*Elaborative techniques may include the use of personal experiences that support the controlling idea.