

Lesson 2: BioBlitz!

Students conduct a fast-paced investigation of invasive species using fact sheets, specimens, videos, and other materials.



Intended Audience

Middle School

Students Will Be Able To

- Gather data from a variety of sources
- Summarize and present data to peers
- Identify regional invasive species

Activities

- BioBlitz
- Pair and Share
- Review activity:
 - Verbal or written review questions

Estimated Time

2-3 class periods

Standards Addressed

NGSS	Common Core
• MS-LS1-4	• RST.6-8.1
• MS-LS1-5	• RST.6-8.2
	• WHST.6-8.1
	• WHST.6-8.2
Ed-Tech	• WHST.6-8.7
• 1.3.2	• WHST.6-8.8
	• WHST.6-8.9
	• RI.6.7
	• SL.6-8.1
	• SL.6-8.4

Introduction

A **BioBlitz** is commonly an event where participants identify as many species as possible in a specific location in a short period of time. Your students will perform a modified BioBlitz in the classroom where they will learn about a selection of invasive species they may encounter in Washington. They will make observations about each species on their datasheets. Then, in groups, they will take more in-depth notes about one species and share what they learned with other groups.

Materials

- [BioBlitz Datasheets](#) (1 per student)
- Materials for each Invasive Species Station (e.g. photos, videos, fact sheets, etc.)
 - Note:** [Invasive species supply kit](#) available for teachers to borrow- includes fact sheets, photos, and specimen
- Optional:
 - Laptops or Tablets

Preparation

1) Read the **Teacher Notes** to familiarize yourself with invasive species. It is also ideal for students to have an understanding of what an invasive species is prior to this activity. You can use our PowerPoint presentation from **Lesson 1: What is an Invasive Species?**

TED-Ed also has two introductory videos for a brief alternative introduction or review:

“The Threat of Invasive Species”:

https://youtu.be/spTWwqVP_2s (4:45)

“Attack of the Killer Algae”:

<https://youtu.be/Vd4rgN6MYtg> (3:23)

2) Select which species you would like to highlight in the BioBlitz. It is recommend to choose an even number of species; it will make the later **Pair and Share** activity easier. Students will end up working in small groups of 3-4 students, so set up enough stations so that each group will have their own space and unique species to research.

Lesson 2: BioBlitz!



For help selecting focal species you can:

- Refer to the **Regional Lists** included on the **Resources** page which list invasive species of concern for different regions in Washington.
- Contact your local natural resource professionals who should be able to tell you a few invasive species commonly found in your area:
 - Conservation Districts** often have education directors and interns who can help identify local invasive species.
 - o Conservation District Directory:
<http://www.wadistricts.org/partnership-directory-4.html>
 - County Weed Noxious Weed Control Board** (NWCB) have information on local invasive plants. Some NWCBs may even be able to do a site visit to identify invasive species on your schoolyard.
 - o Noxious Weed Control Board directory:
<https://www.nwcb.wa.gov/find-your-county-weed-boards>
 - Washington State University** (WSU) extension locations and their volunteer Master Gardener educators often have information on local invasive species.
 - o WSU Extension locations:
<http://pubs.cahnrs.wsu.edu/location>

If you intend to do **Lesson 3: Be a First Detector**, it would be useful to highlight a few invasive species you may find in your area so your students will have an idea of what to look for.

Computers will be useful for showing videos as well as to allow the students to look up additional information that may not be explicitly covered in the materials you provide.

3) Gather the materials needed for the BioBlitz and set up a research station for each species you select. Include materials such as fact sheets, photos, and specimen models (see **Resources** page for sources). If available, you may borrow our **invasive species supply kit**, which includes a variety of specimens and educational materials.

Computers will be useful for showing videos, especially during the in-depth data gathering portion of this lesson, as well as to allow the students to look up additional information that may not be explicitly covered in the materials you provide.



Lesson 2: BioBlitz!



Procedure

Class 1

Introduction to BioBlitzes (10 minutes)

Define or re-define **invasive species** with the class. If you have completed **Lesson 1: What is an Invasive Species?**, you can have students mention key points they remember.

Explain to your students that you will be conducting an invasive species BioBlitz, an event where participants identify as many species as possible in a specific location in a short time period. These intense investigations help get people interested in the plants and animals around them and the data they gather helps local scientists track which species are in an area, gives them an idea of environmental health, and can sometimes uncover new species- native and invasive. Uncovering invasive species is very important. Reporting an invasive species early is the key to preventing them from spreading and taking over.

Tell students they will perform a modified BioBlitz in the classroom where they will learn about a selection of invasive species they may encounter in Washington. They will get a chance to quickly observe all the species. Then you will break them into groups. Each group will be assigned one species to investigate in more detail.



Conduct a BioBlitz (20-30 minutes)

Students rotate quickly through research stations (a few minutes per station), reviewing the provided materials and writing their observations on their **BioBlitz: Round 1** datasheet.

During this first round, students need only record the species name (common and scientific), what type of species it is (plant, animal, or disease), and write a brief description of the species (full sentences are not required).

Class 2

Research single species (20-30 minutes)

Break students into small groups and assign each group one of the BioBlitz species to research. Using the materials at their station, each group will answer the questions on their **BioBlitz: Round 2** datasheet.

Pair and Share (15 minutes)

Keep students in their BioBlitz groups. Pair the groups off and have them share what they learned during their in-depth research. Give each group in the pair will have a few minutes to share. Once each pair has finished sharing, make new group pairs and repeat the process. If time allows, continue this process until all the groups have shared with one another.

Review

Answer the following with the whole class (5-10 minutes):

1) What is one interesting thing you learned about an invasive species from a classmate during the pair and share?

2) Why do we conduct BioBlitzes?

- Identify which species are in an area
- Assess environmental health (especially biodiversity)
- Get people involved in science

Lesson 2: BioBlitz!



3) Where can you conduct a BioBlitz?

- Their own backyard
- Around the schoolyard
- The park
- Pretty much anywhere!

Remind students that taking pictures and bringing a field guide (available to borrow from the local library) can help them identify all the neat new things they find during a BioBlitz.

Being aware of the plants and animals in your area is especially important for invasive species detection. If you know what species you should be seeing, you can report anything that looks out of the ordinary and you may prevent the next invasive species invasion in Washington!

If students find an invasive species while they are out enjoying nature, they should report it to the Washington Invasive Species Council (WISC) at:

- WISC website: <https://invasivespecies.wa.gov/report.shtml>
- WA Invasives app: [Apple](#) or [Android](#)

Optional Extensions

- Invite a local scientist or naturalist to help conduct the indoor BioBlitz. They could help explain to the students what a BioBlitz is and act as a primary information resource for the students as they research their invasive species.
- Conduct a BioBlitz outside with a local environmental organization. University extension groups are a good resource for finding these events.

Lesson adapted from West Coast Sea Grant's "Menace to the West" curriculum. Original materials found here:

- BioBlitz: <https://seagrant.oregonstate.edu/menacetothewest/lessons/bioblitz>