



AQUATIC FOOD WEBS & INVASIVE SPECIES

STUDENT SHEET

Section 1: The Phenomena

Directions: Look at the picture your teacher shows you on the screen. Write down as many observations as you can. Remember to make them as specific and detailed as possible.

Observations	Questions	What is in this picture? What is happening?

Make a hypothesis

If this happened to an object that fell into the lake, what do you think would happen to living things in this lake?



Section 2: Lake Ecosystems

What do you think would happen to the food web once zebra mussels are introduced?

What do you think would happen to native mussels?

Section 3: Native Freshwater Mussels

Directions: Look at the picture your teacher shows you on the screen. Write down as many observations as you can. Remember to make them as *specific* and *detailed* as possible.

What are the main differences between native freshwater mussels and zebra mussels?



Native Freshwater Mussel Research

Directions: Use the resources provide by your teacher as well as internet resources to complete the following.

<u>What do they eat?</u>	<u>What eats them?</u> <u>(Predators)</u>	<u>What is their habitat like?.</u>
<u>How are mussels importance to the ecosystem</u>	<u>How do musels reproduce?</u>	<u>What is the ecological role of mussels in the ecosystems?</u>
<u>How have humasn affected mussels?</u>	<u>How do zebra mussels affect native mussels?</u>	<u>What else would you like to learn about mussels?</u>

Which area would you like to focus on?

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Your Area of Focus:
Notes for your research:

Section 4: Invasive Species

Directions: Watch the video clip about invasive species. Write down the name of the species and what you observe it doing. At the end be ready to share what you think the term “invasive species” means.

Type of animal or plant	What is it doing?	What questions do you have?

An invasive species is...

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Invasive Species Project: Most Wanted Poster

Description: Today you will be gathering information to make a Most Wanted poster for a Minnesota invasive species. The goal is to describe this species, including its crime, and explain what we can do to stop it. To the right is an example of poster made for Kudzu an invasive species now commonly found in the southern United States.

The following information should be included on your poster:

1. Image of the invasive species
2. Common and scientific name.
3. If it's a plant or an animal.
4. Where it lives: in the water (aquatic) or on land (terrestrial) and in which biome.
5. What it looks like (size, color, etc.).
6. Where it is originally from and how it arrived to this area.
7. How this invasive species negatively impacts the environment and how it spreads.
8. Why it is a threat or problem in Minnesota, including how it affects the food web.
9. What can be done to stop it from spreading more.
10. Four or more cited sources (on the back of the poster, which can include sources read or explored together in class).



You can choose one of the following species that are invasive in Minnesota (circle your choice):

<u>Plants</u>	<u>Animals</u>
<ul style="list-style-type: none"> • Purple loosestrife • Eurasian watermilfoil • Buckthorn • Bull thistle • Garlic mustard • Smooth brome grass 	<ul style="list-style-type: none"> • Zebra mussels • Mute swan • Banded mystery snails • Bighead carp • Earthworms • Emerald ash borer • Brown marmorated stink bug

Once you have gathered this information, create a “Most Wanted” poster with these requirements in mind:

- Poster is creative, colorful, attractive, & eye-catching and follows the “Most Wanted” poster format above.
- Image of the invasive species is front and center and clearly visible.
- Poster is legible and understandable with a clear “WANTED” statement.

Grading: 100 points



Invasive Species Most Wanted Poster Rubric

My Invasive Species is: _____

Parts	Description	Points Possible	Points Earned
1. Mug Shot	Image of the invasive species	5	
2. Alias or AKA's	Other names used for the invasive species: <ul style="list-style-type: none"> • Common name(s) • Scientific name (<i>Genus species</i>) 	10	
3. Description	<ul style="list-style-type: none"> • Plant or animal? • Aquatic or terrestrial? • In which biome can it be found? • What does it look like? • Where is it from originally? • How did it get here? 	25	
4. Wanted For	What are its 'crimes'? <ul style="list-style-type: none"> • How does the invasive species negatively impact the environment? How does it spread? • Why is it a threat or problem in Minnesota? How does it affect the food web? 	20	
5. Warning	What can be done to stop it from spreading more?	10	
6. Creativity	<ul style="list-style-type: none"> • Poster is creative, colorful, attractive, & eye-catching and follows the "Most Wanted" poster format. • Image is front and center and clearly visible. • Poster is legible and understandable with a clear "WANTED" statement. 	15	
7. Originality	Written in your own words	5	
8. Works Cited	At least four cited sources on the back of the poster. These can include sources read or explored together in class.	5	
Total		100	

Comments:

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