

Name: _____

Date: _____

Period: _____

AoW #1-1 Tiny Heroes

Read and thoroughly connect to the entire article by generating connections, questions, inferences, and visuals in the margin.

Answer the 4 questions.

Complete the GIST activity.

Write a two paragraph reflection following the following guidelines:

- a. **First paragraph** – Objective summary (follow on back of this sheet)
- b. **Second paragraph** – Connect the article to our unit

Requirement	Points	Student Evaluation	Teacher Evaluation
I have provided a variety of thoughtful annotations for the entire article.	20		
I have answered the 4 comprehension questions using textual evidence if applicable.	20		
My first paragraph is an objective summary . It is evident that I followed the 6 steps for writing an objective summary.	25		
My second paragraph connects the article to our EitO unit . I cited specific evidence from the text that I feel relates to our unit.	25		
I have minimal grammatical and spelling mistakes .	5		
Gist of article	5		
Total			

Steps to Writing an Objective Summary

Step 1: Determine the Central idea (main idea)

To determine the central idea, we look at:

- ▶ The author's **purpose** of the text (entertain, persuade, inform, show cause/effect, compare/contrast, express an opinion, etc.).
- ▶ the **organization (structure)** of the text. Is it written in chronological order (time), order of importance, or by description?

Ask yourself,

- ▶ What are the three most important points being made in the text? **Often the main ideas are given in the first or the last sentence of the text.**
- ▶ What is the **CENTRAL** idea of the text? (Three main points)

Step 2: Write your topic sentence

- ▶ **Name It:** Identify the title of the text and the author.
- ▶ **Verb It:** Use one of the following "summary" verbs: *shows, describes, explains, discusses, lists, explores, illustrates, teaches, compares, states.*
- ▶ **State It:** State the central idea of the text.

Name it	Verb it	State it

Step 3: Write the Body of your Summary

- ▶ Go back to the big ideas/key points.
- ▶ Write these big ideas in your own words.
- ▶ Use transition words to make your summary *cohesive*.
- ▶ Make sure the order and structure of your summary follows the order and structure of the original text. For example, if the original text is in chronological order, the summary should be as well.
- ▶ Leave out minor details found in the text.

Step 4: Add Transitional words / phrases to make your summary FLOW!

Step 5: Check for Bias – NO OPINIONS!!!

Step 6: Evaluation your summary

- ▶ Did I convey the information accurately?
- ▶ Is my summary too narrow or too broad?
- ▶ Would someone who has never read the original piece be able to understand the text's key ideas?
- ▶ Are the ideas in the right sequence?
- ▶ Did I leave out my opinion?
- ▶ Did I use my own words and style?
- ▶ Did I use transition words to tie my summary together?

Scientists say the tiny heroes of the Earth's ecosystem are all around us

By Washington Post, adapted by Newsela staff on 07.20.17

Word Count **863**

Level **1070L**



Wood frogs spend the majority of the year in the forest, but they depend on vernal pools to make it possible for them to lay their eggs. Photo: Aram Calhoun/Washington Post

It is springtime in the woods in Maine. Melting snow soaks the forest floor. Rain spills off new leaves into growing puddles. Tiny egg cases that endured the winter hidden among leaves begin to thaw out in the water and sun. They hatch, releasing tiny crustaceans known as fairy shrimp. Larger creatures – wood frogs, blue-spotted salamanders – lay their eggs in the pools, where no fish might make a meal of them. Mammals come to the pools for a drink of water. Birds swoop down to snack on larvae.

Vernal pools are temporary pools. They exist only in the spring, evaporating in summer. For a few brief months, they are sources of life. Though they represent a tiny proportion of the landscape – usually a fraction of a percent – in some ecosystems they can support up to 35 percent of rare species.

To the world, they may be just puddles, but to their inhabitants, they are the whole world.

"You Have To Be Impressed"

Once you take a look at them, "you have to be impressed," said Aram Calhoun, a conservation biologist at the University of Maine. Yet few people are looking. Vernal pools are so small they fall through the cracks in environmental regulations, and so modest that few conservation campaigns would choose them as a poster child.

"They're definitely the underdogs," Calhoun said.

In the latest issue of the journal *Biological Conservation*, Calhoun and her fellow scientists go to bat for vernal pools and other neglected parts of nature. The entire issue is devoted to small natural features including rocky outcrops, cramped caves, single trees, even the patches of vegetation that flourish along the sides of roads and the edges of fields. These places have important effects on their landscapes.

"I'm a small natural feature myself," said Calhoun, who is 5 feet tall, "so it resonates with me. ... I like to speak out for the things that don't have a lot of people speaking out for them."

The special issue was organized by Malcolm Hunter, Calhoun's husband and fellow University of Maine scientist. He calls the significance of small natural features the "Frodo effect," for the unassuming hobbit who becomes the hero of the "Lord of the Rings."

"Snag" Trees Are Home To Many Creatures

Like Frodo, these small features are the unlikely heroes of the system. Just as the members of the "Fellowship of the Ring" had to trust Frodo to save the day, Hunter said scientists must protect small natural features to support the world's biodiversity or the variety of plants and animals.

Take, for example, a "snag," a dead or dying tree. It might appear to be just a decaying log, a symbol of death, not life. But snags are host to communities of decomposers – fungi, bacteria and bugs. Birds, bats and mammals feed on these and, in turn, become prey to larger predators. A single snag can support a hundred species.

Hunter says there are two families of beetles the are only found in a snag tree. They are the longhorn and metallic wood borers beetles. "And there are more species in those two families of beetles than all the birds and all the reptiles and all the amphibians put together," he said.

The main sources of diversity are all these little things, he said. "Things like a big old snag are incredibly important to these little creatures."

Mature Trees Are At Risk

David Lindenmayer of Australia National University is another writer for the scientific journal. He makes the case for protecting single, large old trees, whose tall canopies and gnarled trunks provide homes and resources not found in younger trees. In southeastern Australia,

where Lindenmayer works, 39 species depend on the hollows in the trunks of older mountain ash trees. Among them is Leadbeater's possum, a critically endangered species that is found nowhere else.

These small spaces are important in nature, Lindenmayer said. It takes only a few to make "a massive difference in the ecosystem," providing resources to make a place livable, he said.

However, large old trees, like other small natural features, are at risk. Logging and forest fires have reduced the number of mountain ash older than 150. It takes more than a century for them to reach the size at which the "Frodo effect" starts to take hold.

Poor decisions made today will have effects for centuries to come, Lindenmayer said.

Protecting The Land Is Vital

Traditionally, environmental regulations are not designed to protect a single tree or a vernal pool. But they can be. Calhoun and others recently worked with the Environmental Protection Agency to develop a program for managing temporary wetlands. Developers can pay a fee to build over temporary pools in inhabited areas. That money then goes to local homeowners to fund conservation of pools on their land.

"It's a way humans and conservation can coexist," Calhoun said.

Lindenmayer said large swaths of protected land are vital for many species, but most of the world is not going to be set aside as a wildlife preserve.

Small-scale handling of natural features might be the best way for scientists to protect them, he said, especially as the human population continues to grow.

Quiz

- 1 Which section highlights the idea that the loss of small natural spaces has already put some larger species in danger?
- (A) the introduction [paragraphs 1-3]
 - (B) "Snag Trees Are Home To Many Creatures"
 - (C) "Mature Trees Are At Risk."
 - (D) "Protecting The Land Is Vital."
- 2 The following sentence from the section "Snag Trees Are Home To Many Creatures" helps to prove the claim that that small natural features are critical to ecological conservation.

Just as the members of the "Fellowship of the Ring" had to trust Frodo to save the day, Hunter said scientists must protect small natural features to support the world's biodiversity or the variety of plants and animals.

Which sentence from the section provides further support for the claim?

- (A) Like Frodo, these small features are the unlikely heroes of the system.
- (B) It might appear to be just a decaying log, a symbol of death, not life.
- (C) A single snag can support a hundred species.
- (D) "Things like a big old snag are incredibly important to these little creatures."

GIST Template

Name _____

Article Title _____

Article Source _____

1. Read the article.

2. Fill out the 5Ws and H.

Who:

What:

Where:

When:

Why:

How:

3. Write a 20-word GIST.

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

