

Diatoms Sample Stations

Project the Essential Question or write on the board

Why are microscopic organisms important to an ecosystem?

Materials Needed:

- Science Notebook (hard copy or digital)
- Sticky notes / chart paper -or- Digital application such as Jamboard
- Diatoms Website: <https://diatoms.org/>
- Stations Materials:
 - Microscope or Microscopes
 - Slides and Slip Covers
 - Collected Sample(s)
 - Pipette or Dropper
 - Tweezers
 - Paper Towel
 - Gloves

****Stations need to be completed in order**

STATION ONE

- Prepare slides using collected samples
- Teacher will provide directions on how to prepare slides
- Summarize in your Science notebook what sample or samples you prepared

STATION TWO

- Put your slide under the microscope and view your sample(s)
- Sketch a picture or pictures of what you observe
- Give each group member time to sketch their own picture
- If time allows, discuss what you have observed

STATION THREE

- Go to the website: <https://diatoms.org/>
- Discuss as a group what you found and if you can relate these to any of the organisms on the website
- Discuss with your group and record in your Science notebook what you found
- Can you connect any of them to what you currently know about the location in which they were collected from? Jot down your ideas in your Science Notebook

STATION FOUR

- Go to the website: <https://diatoms.org/what-are-diatoms>
- Read through the introductory information on the website

- Discuss as a group the importance of Diatoms as a part of an entire ecosystem
- What role do you think they play in the ecosystem? What would happen if they disappeared? What specific role do you think they play in the ecosystem where you took your samples?
- Record ideas in your Science Notebook.

STATION FIVE

- Based on your observations and research into the different parts of the Diatoms website, now draw a model on the role of Diatoms in an ecosystem and why they are important.
- Your models will be revised as you learn more about Diatoms, this is just a starting model!
- Discuss your models with your group and note similarities and differences between your models.
- Record what you discuss in your Science notebooks.

STATION SIX

- *HELP! ALL THE DIATOMS DISAPPEARED!*
- Have students work on a story that explains how all the diatoms disappeared in their ecosystem and the effects of the disappearance on local wildlife and the impact on humans.