

DISCOVERY AND DIATOMS

Grade 11-12

Big Idea: Change and the Unknown

Central Focus

Students will conduct personal and in-class research to present their findings on how microorganisms interact with our local and global water systems. They will collect water from sources they find around their community and study the water under microscopes. Students will apply their knowledge of microorganisms when observing the water. Taking inspiration from what they discover under the microscope, students will have the freedom to create anything related to their findings in the form of watercolor paintings. They can use the water collected from multiple local sources to see how they affect their paintings, much like how different microorganisms have different effects on water systems.

Activities Sequence

Day 1-2: Project introduction and presentations on the art and making process' of artists Cindy Lane and Margarita Hagen. Students will then Research microorganisms and record on a collaborative class power point for a small presentation. For homework, students will collect water for viewing under microscope (tap water, puddle, ponds etc...).

Day 3: Observe water under microscope and create sketches based on findings. Students will work with the scientific method as they begin to experiment how different water affects paint distribution.

Day 4-7: Students will work to complete final compositions based off of their sketches they made during the observation period. They will present their work and engage in reflective discussion based on what they learned about microorganisms and their environmental impact (as well as the more broad concepts of "the unknown and change").

Essential Questions

How does discovery lead to significant change?

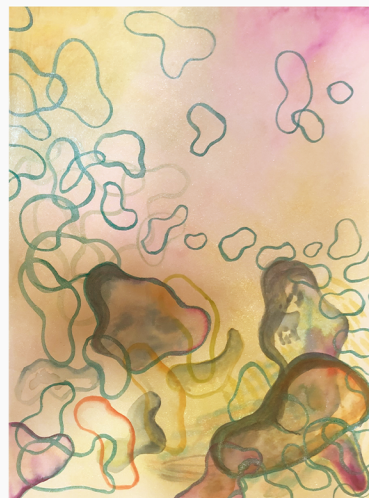
How do we adapt to these changes?

How does fear of the unknown stop you from making change in your own life?

How do you adapt to the environment and how does the environment adapt to humans?

Enduring Understanding

Students will learn that small actions or events can result in big impacts, similar to how microorganisms, small in size, can greatly impact the environment. The Unknown can be scary, confusing, or impossible to comprehend. However, through research and creative approaches, the unknown may soon become familiar information. Students should be able to see how confronting the unknown does not have to be jarring. Instead, changing the way information is presented (eg. making small things big) can make it easier to learn something new.



Materials

- Pencils
- Erasers
- Sketchbook paper (personal class sketchbook; 9 x 12)
- Watercolor paper (9 x 12 or larger for final piece)
- Paint brushes
- Water container
- Watercolor paint
- Palette
- Paper towel
- Water (Student found or provided by teacher)

Standards

HS-NCSA-Proficient
VA:Cn10.1.1a

HS-NCAS-Proficient
VA:Pr4.1.11a

HS-ESS3-6
1.3.12.D.5

