

Lesson 1: Collecting Life in the Water

*Ask parents to send rubber boots for their students and a clear container with lid to school for activity.

Objectives:

Students learn about life in still water. Students practice listening and observation skills.

Essential Questions:

Where do Mosquitoes come from? What types of bugs or insects do we have here?

Alaska Native Values:

See connections-All things are related.
Have patience- Some things cannot be rushed.
Respect for Land and Nature

Standards:

L10. Follows directions.
L20. Uses a variety of writing or art tools.
M4. Counts orally, counts objects, and names numerals.
SSC3. Asks questions and finds answers through active exploration of nature.

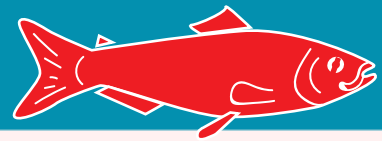


Promoting Culture Self Assessment

- I encourage and invite parents and community members to volunteer and assist with Alaska Native language and cultural activities.
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| Whole Group | Math/Science | Science/Community |
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| <p>Materials:</p> <p>A swamp or pond with shallow still water</p> <p>Clear containers with lids (old mayo jar, Tupperware)</p> <p>Rubber boots (for students)</p> <p>A fish tank or a big glass container</p> <p>Phone or camera to take pictures for class book (separate activity)</p> | <p>Materials:</p> <p>Magnifying glass</p> <p>Paper</p> <p>Pencils</p> <p>A view of collected water samples (Not to be moved!)</p> | <p>Materials:</p> <p>Community member knowledgeable about types of bugs/insects that live in the community.</p> <p>Internet:</p> <p>https://www.insectidentification.org/insects-by-type-and-region.asp?thisState=Alaska&thisType=True%20</p> |
| <p>Activity:</p> <p>See below activity.</p> | <p>Activity:</p> <p>In small groups (2-3) Have students in a place where they can see all the life that was collected in the jar.</p> <p>What do they observe? How many of one object can you see?</p> <p>Give a good 5-8 min where they can just look and share what they are seeing.</p> <p>Have students draw (you can help or also model) any observations you see.</p> | <p>Activity:</p> <p>Find out what you collected by inviting your local expert to come in and help identify what types of insects or life you have gathered in your still water sample. Ask community language experts to provide names for common insects.</p> <p>Key words to look up on Internet:</p> <p>Mosquito larvae, water beetles</p> <p>Dragon fly larvae</p> <p>Water strider</p> |

Activity



Engage: Whole Group Activity: Hunting for Mosquitoes

Before heading outside to the swampy area have students gather around you to remind them of going outside together rules:

- #1 Stay together no one should be ahead of you (the teacher)
- #2 Be careful of the open water often surrounded by tundra there are pockets that when you step on them are much deeper than they look-you don't want to get all wet
- #3 Keep your container with the lid close to you-don't loose it
- #4 Don't go in the water passed your boots.
- #5 Be respectful of the things we see and catch. Do not try to hurt anything we are only collecting to observe and to learn by watching.
- #5 When its time to go we will all close our lids and come back together. Everyone has to carry their own water samples back.

Explore: Touch, Agturu, Agtur, Vandaniichit

Activity :

Take the students to a swampy area with still water. Show students how you dip your container (or you can have a dipper spoon) to get your water sample. You want to get the water that looks brown, dirty get under the surface layer of the swamp water. Don't worry if it looks like you didn't get anything. Once the water settles your sure to have some type of life in your sample.

Allow students to find their location and dip their containers into the water. If they see any additional bugs they can add them into the jar (water strider, beetles).

Explain: Talking, Niugtuk, Qalarte, Qenax

Explain: *“Let your water settle (don't shake it up). Let's take time to look and see if you notice anything moving in the water. How is it moving (up and down, side to side)? What do you think that it is?”* After students are done observing (5 min) have them take their samples and dump them all into one container or fish tank that is located in a place where students can look but not dip hands into container.

Evaluation

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| Emerging: Students did not follow group or did not listen during the collecting activity. | Developing: Student needed several reminders to listen and stay close. | Proficient: Student was able to stay with the group and gave an observation they saw in their sample or group water sample. | Advanced: Student listened and gave several observations they saw in the group or individual water samples. |
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