

Beavers & Wetlands Field Study Curriculum: Classroom Post-Visit

**Developed in 2019
By Beavers Northwest**



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Classroom Curriculum Post Visit (1 hour)

Background:

Beavers are ecosystem engineers with numerous benefits to wildlife, water quality, and people! We will use the restored wetlands at Magnuson Park as a resource to teach students about the benefits of wetlands, human impact, ecosystem interactions, and the role of beavers through it all. Students will engage in a one-hour pre-field study classroom visit where they will discuss wetlands and beaver adaptations. Students will then visit Magnuson Park for a two-hour experiential field study. Finally, a one-hour post-field study classroom visit will tie all the topics together and provide students an opportunity to once again discuss the importance of wetlands and the beavers that create them.

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Focus and outcomes:

- *Beavers as ecosystem engineers*
 - *Students can identify the roles of beavers in creating wetland ecosystem.*
 - *Students can recognize indicators that a wetland is created by beavers.*
- *Benefits of wetlands*
 - *Students understand that wetlands provide habitat for a variety of organisms.*
 - *Students understand that wetlands improve water quality and provide water storage.*
 - *Students recognize that there are recreational benefits to wetlands.*
- *Observations*
 - *Students make observations about nature.*
 - *Students understand the importance of scientific data collection and sharing.*

General Outline:

- Recap field trip (5 min)
- Stakeholders town hall (20 min)
- Modify group murals & debrief (20 min)
- Final evaluations and wrap-up (15 min)

Stakeholders Town Hall (20 min)

Learning Targets:

- *Benefits of wetlands*
- *Ecosystem interactions*

Materials:

- *Stakeholders cards*

1. Have students break into small groups. Give each group a stakeholder card.
2. Have students work in small groups to read through the card with their stakeholder on it. Have students discuss in their group what impacts would beaver building have on your organism? Are there any impacts not included on the card? What would you say if you had a decision about whether beavers should be in your ecosystem or not?
3. Have students present their organism to the rest of the groups and vote on their feelings about the beaver.
4. Discuss as a large group the general impact of beavers. Is it always positive or always negative? How could negative impacts be mitigated?

Stakeholder card text is included at the end of this curricula.

<p>Salmon <i>Beavers have moved into a stream where you spawn</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● cold water ● bugs to eat ● fast flowing streams with gravel to lay eggs ● slow wetland areas to rest <p>Dislikes:</p> <ul style="list-style-type: none"> ● warm water ● pollution ● sunny and hot streams ● orca whales 	<p>Duck <i>Beavers have moved into a stream near your home pond</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● Plants growing in water to eat ● safe places to nest near water ● some hiding spots around water <p>Dislikes:</p> <ul style="list-style-type: none"> ● drought ● bald eagles
<p>Willow Tree <i>Beavers have moved into a stream where you live</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● sun to soak up with leaves ● lots of water for roots ● re-sprouting when chewed or chopped down <p>Dislikes:</p> <ul style="list-style-type: none"> ● tall trees that block the sun ● drought 	<p>Dragonfly <i>Beavers have moved into a stream where you live</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● ponded water to lay eggs ● lots of other small bugs to eat ● grasses and other plants to rest on near the water <p>Dislikes:</p> <ul style="list-style-type: none"> ● drought ● frogs
<p>People <i>Beavers have moved into a stream behind your home</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● seeing wildlife ● living near water ● playing in the backyard <p>Dislikes:</p> <ul style="list-style-type: none"> ● flooding, ● muddy backyard ● trees falling on house 	<p>Douglas Fir Trees <i>Beavers have moved into a stream near where you live</i></p> <p>Likes:</p> <ul style="list-style-type: none"> ● lots of sun ● growing very straight and tall ● other tall trees around to protect from wind <p>Dislikes:</p> <ul style="list-style-type: none"> ● woodpeckers ● wet roots ● paper products