Environmental Science Center

Salmon Heroes

Field Journal

Salmon Heroes

Qeybta Joornaalka

This field journal belongs to:

Joornaalka qaybtana waxaa iska leh:

_____

Welcome to Salmon Heroes!

For hundreds of years scientists, artists, and more have used field journals to record their thoughts, observations, and questions. We invite you to use this journal to record your own observations and questions. This is YOUR journal, so make it personal and have fun!

Soo dhowaada Halyeeyada Salmon!

Boqolaal sano saynisyahano, fanaaniin, iyo in ka badan ayaa isticmaalayey joornaalada goobta si ay u qoraan fikirradooda, indha-indheyntooda, iyo su'aalaha. Waxaan kugu martiqaadey-naa inaad isticmaasho joornaalkan si aad u duubto fiirsasha-daada iyo su'aalahaaga. Kani waa joornaalkaaga, markaa ka dhig mid shakhsi ah
oo raaxayso!

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Food Web, 5 Pacific Salmon Species, Indigenous Lifeways, Your Watershed, Turbidity at Home

Shabakadda Cunada, 5 nooc ee noolaha Salmon Baasifigga ah, Waddooyinka Nololeed ee asaliga ah, Biyo-mareenkaaga, Wasakhda Guriga

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Salmon Vocabulary
Erayada Salmon

Life Cycle — a series of changes in the life of an organism

Watershed — the area of land that all drains into a particular body of water; for example, the Duwamish River watershed is all the land that drains into the Duwamish River.

Pollution — the introduction of harmful materials or contaminants into the environment

Stormwater — rain and snow that runs off rooftops, paved streets, and parking lots. As it runs off, it picks up pollution like oil, fertilizers, pesticides, trash, and animal waste.

Meertada nolosha *—isbedelo taxane ah oo nolosha noolaha*

Biyo-mareen *— goobta dhulka oo dhammaan ku shubma qayb gaar ah oo biyo ah; tusaale ahaan, biya-mareenka webiga Duwamish waa dhammaan dhulka ku qulqulaya biyaha Duwamish River.*

Wasakhaynta *—Ku sii daynta walxaha waxyeelo leh ama wasakhowga deegaanka*

Biyaha duufaanka *— roobka iyo barafka ka da'aya saqafyada dushooda, jidadka laamiyada ah, iyo meelaha baabuurta la dhigto. Marka ay biyaha socdaan, waxay soo qaadaa wasakhda sida saliidda, bacriminta, sunta cayayaanka, qashinka, iyo qashinka xoolaha.*

Draw or Describe a Stream Habitat
Sawir ama Sharax Deegaanka Qulqulka Biyaha

What are the 3 C's?

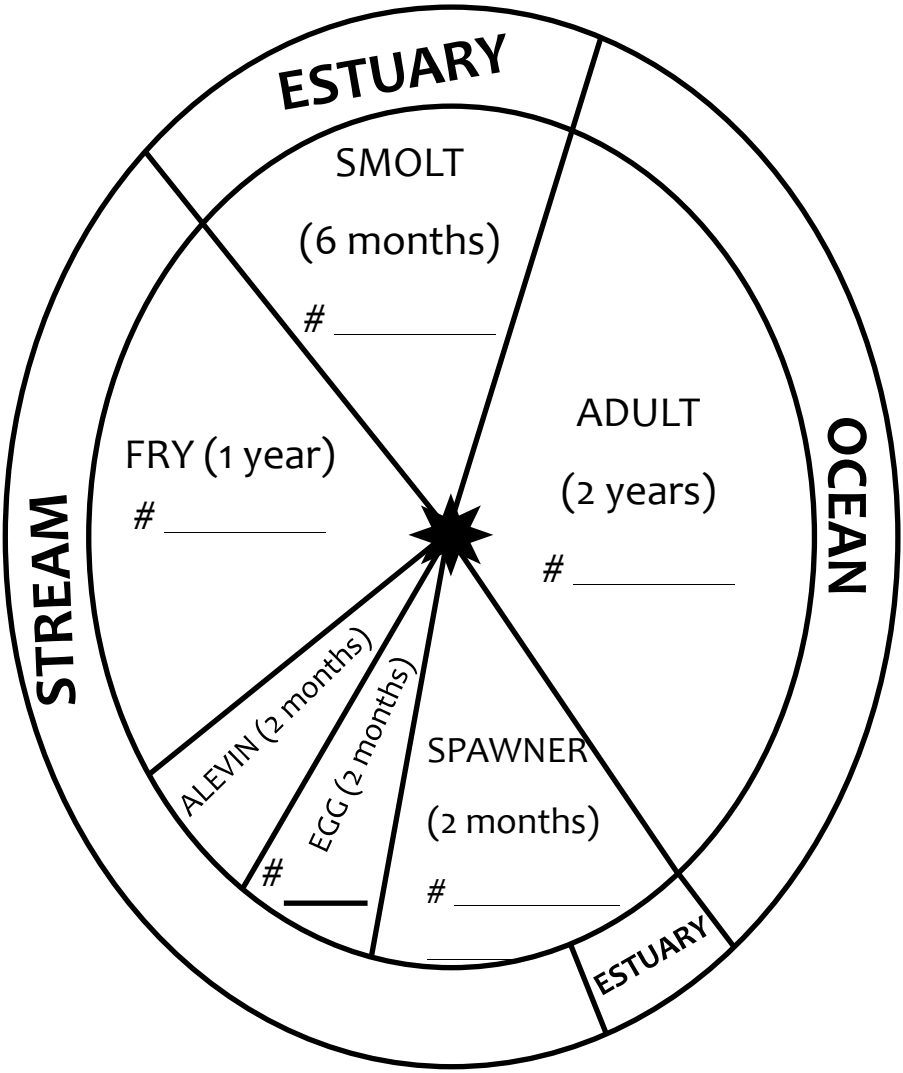
- C _ _ _ _
- C _ _ _ _
- C _ _ _

Maxey yihiin 3-da C?

- C_ _ _ _
- F_ _ _
- L _ _ _ _ _

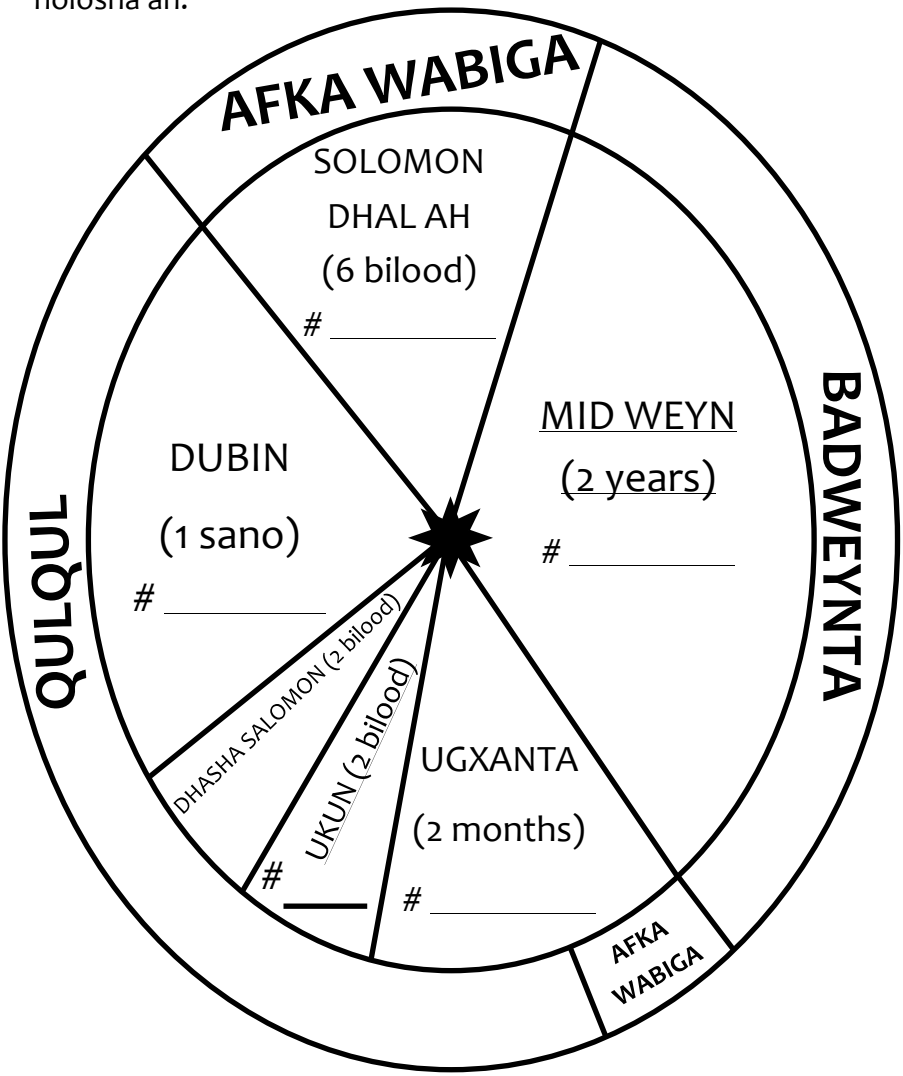
The salmon wheel!

Follow along with your ESC Naturalist to track how many salmon survive at each life-cycle stage.



Luga salmon!

La soco Dabeecad yaqaankaaga Xarunta Sayniska Deegaanka (Environmental Science Center, ESC) si aad ula socotid inta salmon ee ka badbaada marxalad kasta oo wareegga nolosha ah.



Draw or Describe an Estuary Habitat
Sawir ama Sharax Deegaanka Afka Wabiga

What kind of water do you find in an estuary?

Biyo noocee ah ayaad ka heleysaa afka wabiga?

Fresh Water in the Stream!

Biyaha Macaan ee Qulqulka!

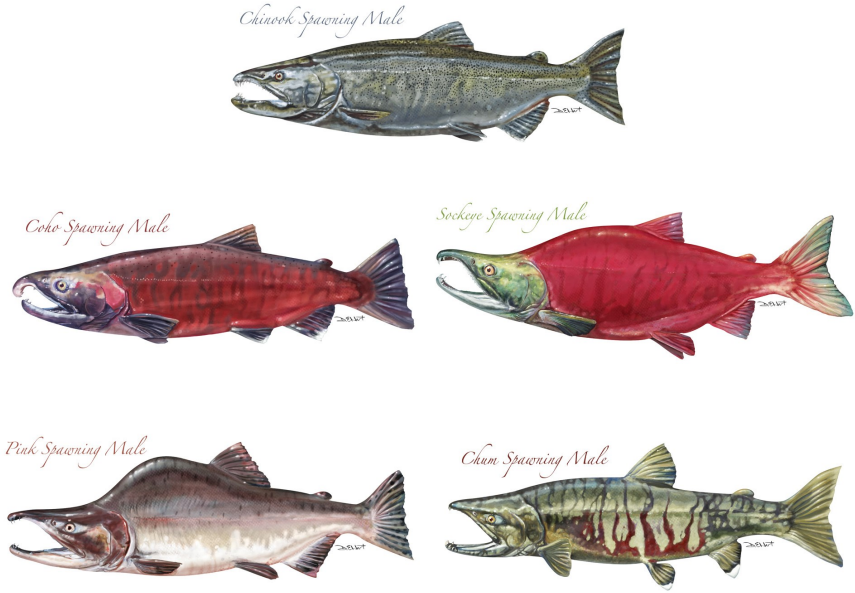
Salt Water in the Ocean!

Biyaha Dhannaanka ee Badweynta!

Independent Work - *Shaqo Madaxbanaan*

The 5 Pacific Salmon Species

Qaybo Salmon 5 ah oo Gaar ah



Images from The Behavior and Ecology of Pacific Salmon and Trout by Thomas P. Quinn, University of Washington Press

What is one physical feature that all 5 species have in common?

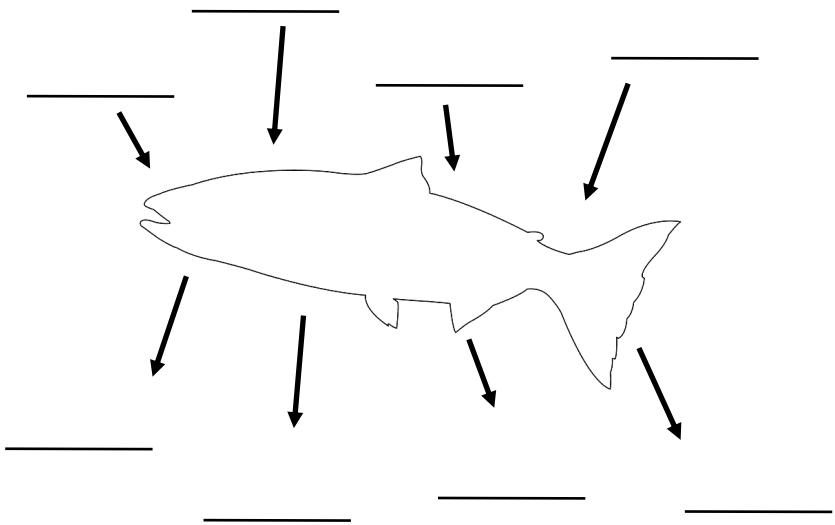
Maxay tahay hal muuqaal jireed oo dhammaan 5 nooc ay wadaagaan?

What is one feature that only one species has?
Waa maxay astaanta uu halkaas noole kaligiis leeyahay?

Independent Work - *Shaqo Madaxbanaan*

Salmon and the Food Web
La cadena alimenticia del salmón

Salmon are an important part of the food web and the movement of matter through ecosystems. They are secondary consumers and eat primary consumers. Complete the diagram: write the names of organisms that salmon eat *below* the salmon, and write the organisms that prey on salmon *above*.



Salmonku waa qayb muhiim ah oo ka mid ah shabakada cuntada iyo arinta dhaqdhaqaaqa ee nidaamka deegaanka isla xiriira. Waa noole ku tiirsan noolaha ka hooseeya waxayna cunaan noolaha sameeya wax soo saarkooda aasaasiga ah. Dhamaystir sawirka: hoos kuqor magacyada noolaha uu salmon cuno salmon, oo kor ku qor noolaha ugaadhsada salmon.

Independent Work - *Shaqo Madaxbanaan*

Your Watershed
Dhulkaaga Biyaha Kala Qaybiya

What is a watershed?

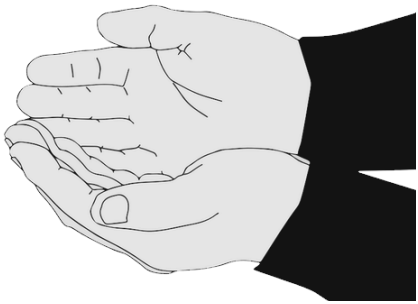
Waa maxay dhulka biyaha kala qaybiya?

What watershed do you live in?

Waa maxay dhulka biyaha kala qaybiya ee aad ku nooshahay?

What are some of the potential problems or issues in your watershed?

Maxay yihiin qaar ka mid ah dhibaatooyinka iman kara ama arrimaha ka jira dhulka biyaha kala qaybiya?



Independent Work - *Shaqo Madaxbanaan*

Salmon, Nettle, and Indigenous People

Salmon, Nettle, iyo dadka dhaladka ah

Salmon are deeply connected to the food, culture, and ways of life of Native people in this region. Like salmon, stinging nettle has a seasonal life cycle. Nettle is used in different ways depending on the season—including to help catch salmon.

Kaluunka Salmon waxa uu si qoto dheer loogu isticmaala cunto ahaan, dhaqanka, iyo hababka nolosha dadka u dhashay gobolkan. Sida kalluunka salmon, geed daweedka nettle wuxuu leeyahay leeyahay xili meerto nololeed. Nettle waxaa loo isticmaalaa siyaabo kala duwan iyadoo ku xiran xilliga - oo ay ku jiraan in lagu caawiyo qabashada salmon.

Spring:
Gu'ga:
Stinging nettle leaves are harvested for food and tea.
Caleemaha geed daaweedka naatal ayaa loo goostaa cunto iyo shaah.

Summer/Early Fall:
Xagaaga/ Dayrta Hore:
Nettle seeds are gathered for medicine.
Miraha geed daweedka nettle ayaa loo goostaa daawo ahaan.

Fall:
Dayr:
Nettle stalks are harvested for fibers and twisted into cordage.
Jirada geed daaweedka nettle ah ayaa loo goostaa xarko waxaana laga dhigaa xadhig.

Winter:
Jiilaal:
Nettle Cordage is twisted into nets and ropes to catch salmon.
Xarkaha laga sameeyo geedka Nettle waxa laga sameeyaa shabagyada iyo xadhko lagu qabto salmon.

Independent Work - *Shaqo Madaxbanaan*

What season does each activity happen in? Write the name of the season in the blank space.

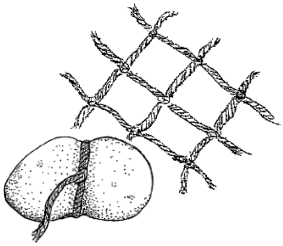
Xilligee ayay hawl kastaa dhacdaa? Ku qor magaca xilliga mee-sha banaan.

Make cordage
Samee xarig

Season/Xilli:

_____

Twist cordage into nets
U badel xariga shabagyo



Season/Xilli:

_____

Harvest leaves
Gur laamaha

Season/Xilli:

_____

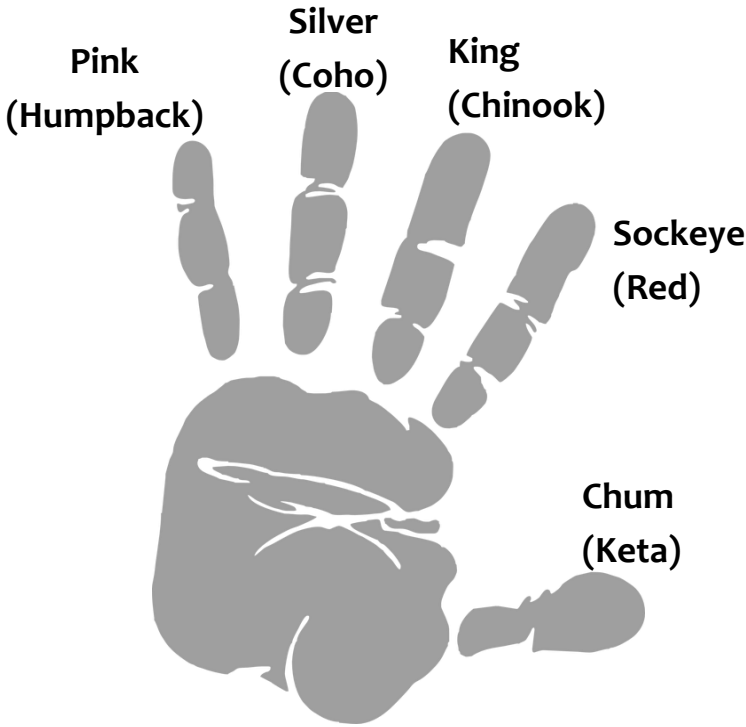
Gather seeds
Ururi miraha

Season/Xilli:

_____

Independent Work

You can use the five fingers on a hand to remember the 5 Pacific salmon species!

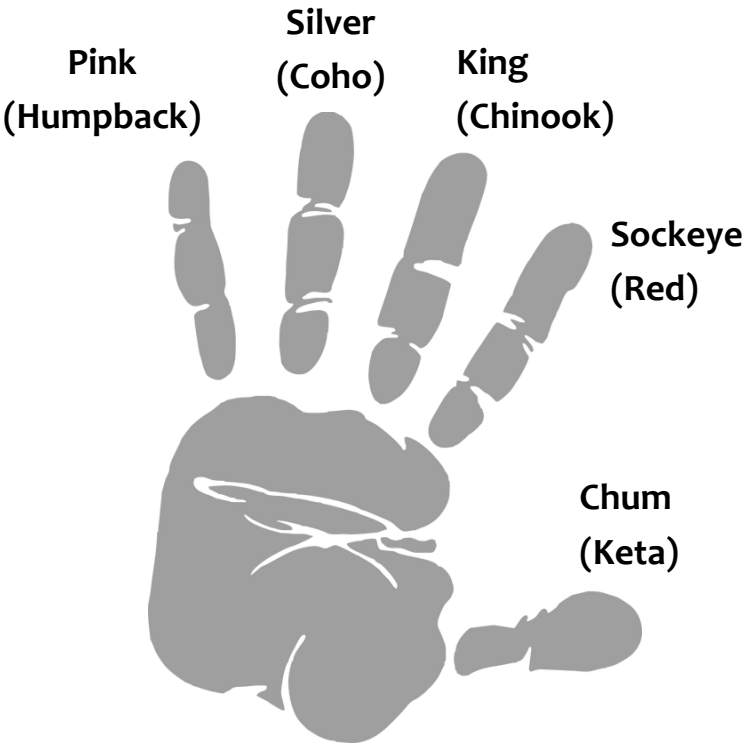


These are just SOME of the names for the different types of salmon—there are many others, including yubəč , the name for King salmon in Lushootseed, the language of many of the Indigenous Peoples of the Puget Sound region.

What other names or words for salmon do you know?

Shaqo Madaxbanaan

Waxaad ku isticmaali kartaa shanta farood gacanta si aad u xasuusato 5 nooc oo salmon-ka Badweynta Baasifiga ah!



Kuwani waa QEYB ka mid ah magacyada noocyada kala duwan ee salmon —waxaa jira kuwo kale oo badan, oo ay ku jiraan yubəč*, magaca King salmon ee Lushootseed, luqadda Dad badan oo Asaliga ah oo ka tirsan gobolka Puget Sound .*

Waa maxay magacyada kale ama ereyada salmon ee aad taqaan?

Independent Work - *Shaqo Madaxbanaan*

Water Quality at Home!

Tayada Biyaha ee Guriga!

The black and white circle in the next page is called a secchi disk, and it is one tool we can use to measure the turbidity of water (how clear the water is). You can use it yourself!

Steps:

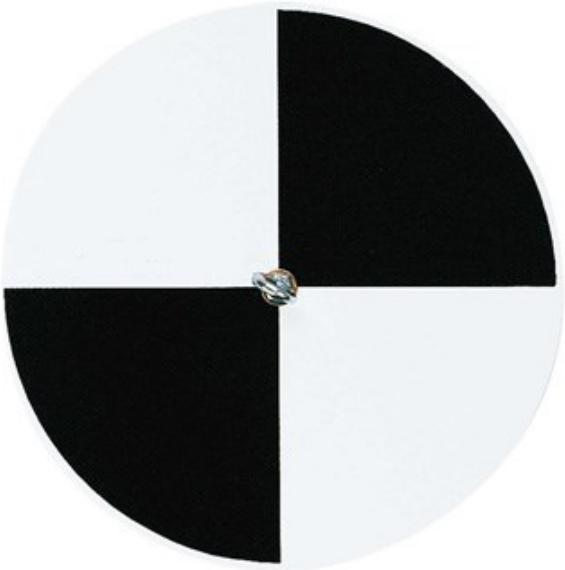
1. Get a clear container (such as a plastic cup, or a glass jar) and fill it with water.
2. Place the container on top of the picture of the secchi disk and measure the turbidity according to the chart on the next page.
3. You can change the turbidity of your water by carefully adding some dirt to the water and stirring it in. Try mixing in just a small amount at first, then adding more! Record your data as the turbidity changes.

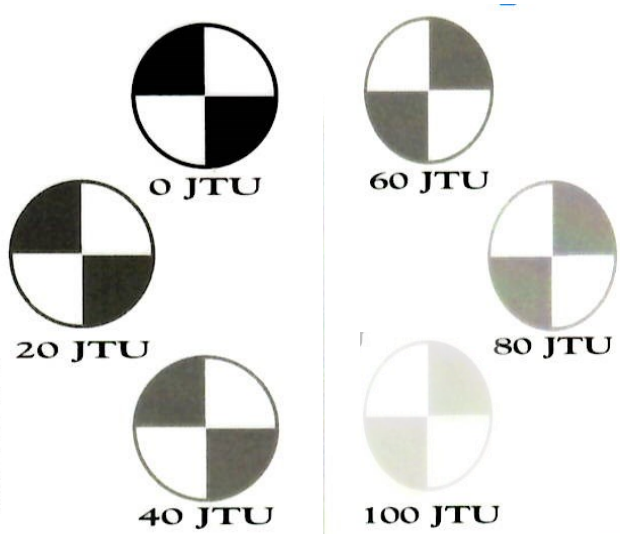
Goobaabinta madow iyo caddaanka ee hoose waxaa lagu magacaabaa disk secchi, waana hal aalad oo aan u adeegsan karno si aan u cabbirno wasakhda biyaha (sida ay biyuhu u cad yihiin). Adigaba waad adeegsan kartaa!

Tallaabooyinka:

1. *Soo qaado weel cad (sida koob caag ah, ama weel dhalo ah) oo ka buuxi biyo.*
2. *Ku rid weelka dushiisa sawirka secchi disk oo qiyaas cilladda sida ku cad jaantuska bogga hore*
3. *Waxaad beddeli kartaa wasakhda biyahaaga adiga oo si taxaddar leh ugu daraya wasakh biyaha kadibna ku qas. Isku day inaad ku qasto qadar yar marka hore, ka dibna ku dar wax badan! Diiwaangeli xogtaada marka wasakhdu is beddesho.*

Independent Work - *Shaqo Madaxbanaan*





Site Observations

Kormeerka Goobta

What did you notice during the site walk? What did you see and hear? Use the space below to write or draw about your experience.

Maxaad dareentay intii lagu jiray socday goobta? Maxaad aragtay ama maqashay? Isticmaal meesha bannaan si aad wax u qorto ama uga sawirtid khibradaada.

Field Lesson - *Casharkii Lagu qaato Goobta Tusaalaynta*

Make a scientific illustration of a salmon

Samee sawir cilmiyeed oo salmon ah

Ereyada Habdhiska Jirka

Baalka Kore

Baalka Gadaale

Sanka

Xariiq Dhinaceedka

Midab Kore ee Madow

Anatomy Vocabulary

Dorsal Fin

Caudal Fin

Nare

Lateral Line

Countershading

Stream Survey

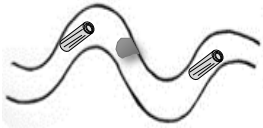
Use the scale below to help grade the stream and find out if it is a healthy habitat. For each question, choose a number between 0 (which is really bad) and 10 (which is excellent).

#1. Does the stream have lots of curves?

Mostly straight	A few curves	Lots of curves

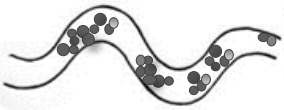
0 1 2 3 4 5 6 7 8 9 10

#2. Does the stream have logs and big rocks?

Almost no logs or big rocks	A few logs or big rocks	Lots of logs and big rocks
		

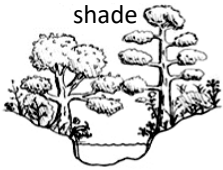
0 1 2 3 4 5 6 7 8 9 10

#3. Is there gravel?

Almost no gravel, lots of dirt in stream	A little bit of gravel	Lots of gravel
		

0 1 2 3 4 5 6 7 8 9 10

#4. Are there lots of trees?

Almost no shade	Some trees and shade	A lot of trees and shade
		

0 1 2 3 4 5 6 7 8 9 10

#5. How wide is the forest?

Buildings and roads are close to stream.	Some forest next to stream.	Lots of forest on each side of stream.

0 1 2 3 4 5 6 7 8 9 10

Adapted from the Georgia Adopt-A-Stream Visual Stream Survey

Total Stream Habitat Score _____

Is it healthy for salmon?:

Excellent (39-50) **Good (26-38)** **Fair (13-25)** **Poor (0-12)**

What would <u>you</u> change to make this stream better?

Casharkii Lagu qaato

Sahanka Qulqulka

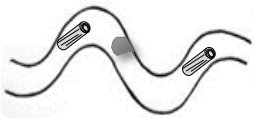
Isticmaal cabirka hoose si aad uga caawiso qiimaynta qulqulka oo aadna ogaato inay tahay deegaan caafimaad qaba. Su'aal kasta, dooro lambar inta u dhaxaysa 0 (aad u xun) iyo 10 (aad u fiican).

#1.Qulqula Biyaha ma leeyihiin qalooc aad u badan?

Inta badan waa toosan yihiin	Xoogaa qalooc ah	Lots of curves

0 1 2 3 4 5 6 7 8 9 10

#2. Biyah qulqula ma leeyihiin qoryo iyo dhagaxyo waaweyn?

Inta badan ma lahan qoryo iyo dhagaxyo waaweyn	Xoogaa qoryo ah ama dhagaxyo waaweyn ah	Qoryo badan iyo dhagaxyo waaweyn
		

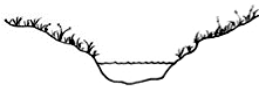
0 1 2 3 4 5 6 7 8 9 10

#3. Jaay ma leeyahay?

Ku dhawaad aan lahay jay, qulqulka biyo wasakh badan leh	Xoogaa jaay ah	Jaay badan

0 1 2 3 4 5 6 7 8 9 10

#4. Ma jiraan geedo badan?

Wax hoos ah aan lahayn	Some trees and shade	Geedo badan iyo hoos
		

0 1 2 3 4 5 6 7 8 9 10

#5. Intee in la eg ayey kayntu ballaaran tahay?

Dhismayaasha iyo waddooyinka ayaa u dhow biyaha	Some forest next to stream.	Kaymo badan dhinac walba

0 1 2 3 4 5 6 7 8 9 10

Waxaa laga soo qaatay Sahanka Biyaha Qulqula ee Muuqaalka Georgia (Georgia Adopt-A-Stream Visual Stream Survey)

Wadarta Dhibcaha ee Deegaanka Biyaha Qulqula _____

Caafimaad ma u leeyihiin salmon ?:

Heer sare (39-50) Wanaagsan (26-38) Dhexdhexaad (13-25) Uma wanaagsana (0-12)

Maxaad ka beddelaysaa si loo wanaajiyo biyahan qulqulka?

Field Lesson

Stream Water Quality

How COLD is the water? (Temperature)

What causes TEMPERATURE to increase or decrease?
Many things can change water temperature: weather, stormwater runoff, and how many trees are near the river.

How CLEAN is the water? (Phosphate, Nitrate, pH)

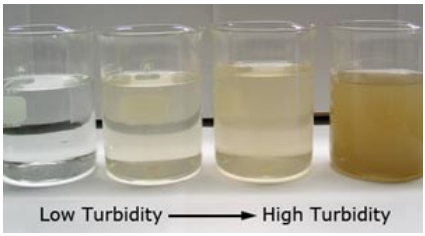
What are PHOSPHATE and NITRATE?
Phosphate and nitrates are chemical nutrients needed for plant growth. Sources include farming and barnyard runoff, some soaps, human and animal waste, and fertilizers.

What is pH?
pH measures if the liquid is an acid (like lemon juice or stomach acid) or a base (like ammonia or bleach). Most life wants an environment that is somewhere in the middle.

How CLEAR is the water? (Turbidity)

What is TURBIDITY?

Turbidity is how scientists measure if the water is clear and not cloudy. Water gets more turbid with heavy rains, flooding, erosion, stormwater runoff, or algae blooms. Tree roots along the river's edge help to stabilize soil; less trees means more turbid water.



Tayada Biyaha Qulqulka

QABAWGA biyuhu waa sidee? (Heerkulka)

Maxaa sababa in HEERKULKU kordho ama hoos u dhaco?

Waxyaabo badan ayaa beddeli kara heerkulka biyaha: cimilada, biyaha daadadka, iyo inta geed ee ku dhow wabiga.

NADAAFADA biyuhu waa sidee? (Phosphate, Nitrate, pH)

Waa maxay PHOSPHATE iyo NITRATE?

Phosphate iyo nitrate waa nafaqooyin kiimiko ah oo looga baahan yahay koritaanka dhirta. Ilaha waxaa ka mid ah beero iyo biyo galeen, saabuunta qaar, qashinka dadka iyo xoolaha, iyo bacriminta.

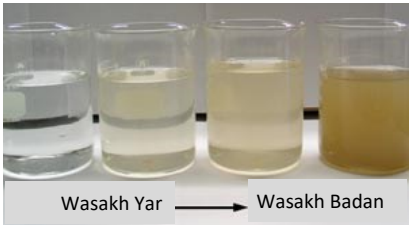
Waa maxay pH keedu?

pH waxay cabbirtaa haddii dareeruhu yahay asiidh (sidacashiirka liinta ama aashitada caloosha) ama salka (sida ammonia ama midab bixiyaha). Nolosha inteeda badan waxay rabtaa deegaan meel dhexe ah.

NADAAFADA CADAAN AHAANEED ee biyuhu waa sidee? (Wasakh ahaaneed)

Waa maxay WASAKHDA?

Wasakhda waa sida saynisyahannadu u cabbiraan haddii biyuhu nadiif yihiin oo aan wasakh ahayn. Biyuhu way sii xumaadaan marka la helo roobab xoog leh, daadad, nabaad guur, biyaha daadadka, ama ubaxyada soo baxaa. Xididdada geedaha ee webiga qarkiisa ayaa caawiya xasilinta ciidda; geedo yari waxay ka dhigan yihiin biyo badan oo dhib badan.



Field Lesson

Water Quality Testing Notes

Where did your naturalist test the water?

Stream _____

When did they test the water?

Date: _____ Time: _____

What else do we notice about our test site?

Air Temperature: _____ºC or ºF

Recent Weather (circle one): Clear Cloudy Rain Trace

Stream Issues: Trash Soap Oil Low Water

Other Notes:

Fill in the test results as you watch the naturalist test the water in the stream or river!

Turbidity (JTU)	Water Temperature (°C)
pH	Nitrates (ppm)
Phosphates (ppm)	Dissolved Oxygen (ppm)

Is it healthy for salmon?

Use the box below to find out if the test results are healthy for salmon. Circle the results that your naturalist measured!

	Water Quality Result			
Test	Excellent	Good	Okay	Unhealthy
Temperature	7-12 °C	4-6 °C	13-17 °C	< 4 °C OR >17 °C
Dissolved Oxygen: Spawners	>8 ppm	5-8 ppm	3-4 ppm	0-2 ppm
Dissolved Oxygen: eggs & alevin	>11 ppm	8-11 ppm	6-7 ppm	0-5 ppm
Turbidity	0 JTU	1-40 JTU	41-100 JTU	>100 JTU
Phosphate	0-1 ppm	2 ppm	3 ppm	>3 ppm
Nitrate	<2 ppm	2.5 ppm	5 ppm	20 ppm
pH	6.5-8.2	5-6.5 OR 8.2-9	4-5 OR 9-11	<4 OR >11

What is JTU?
JTU stands for Jackson Turbidity Units. The scientist who created the test was named Jackson. Maybe one day there will be a scientific test named after you!

What is PPM?
PPM stands for parts per million. For example, if your test best matched 2 ppm on the chart, that means that in every 1 million molecules in your water sample, 2 of those molecules are phosphate. Nitrate and dissolved oxygen are also measured in ppm.

Qoraalada Tijaabada Tayada Biyaha

Halkuu biyaha ku tijaabiyey dabeecad yaqaankaaga?

Qulqul _____

Goorma ayay tijaabiyeen biyaha?

Taariikhda: _____ Waqtiga: _____

Maxaa kale oo aan ka ogaannaa goobteena tijaabada?

Heerkulka Hawada: _____ºC ama ºF

Cimiladii U Dambeeyey (mid goobo gali): Cadaan Daruur Roobka Raad

Dhibaatooyinka Biyaha Qulqulak: Wasakh Saabuun Saliid

Biyo Gaabiya

Xasuusinta Kale:

Buuxi natiijooyinka tijaabada markaad daawanayso tijaabada dabeecad yaqaanka biyaha durdurka ama webiga!

Wasakhda (JTU)	Heerkulka Biyaha (°C)
pH	Nitrates (ppm)
Phosphates (ppm)	Oksijiin Milmay (ppm)

Ma u caafimaad qabaa salmon?

Isticmaal sanduuqa hoose si aad u ogaato haddii natiijooyinka baaritaanka ay u caafimaad qabaan salmon. Goobaabin geli natiijooyinka uu cabbiray dabeecad yaqaanku!

	Natiijada Tayada Biyaha			
Tijaabo	Heer sare	Wanaa-gsan	Hagaagsan	Caafimaad darro
Heerkulka	7-12 °C	4-6 °C	13-17 °C	< 4 °C OR >17 °C
Oksijiin Milmay: Spawners	>8 ppm	5-8 ppm	3-4 ppm	0-2 ppm
Oksijiin Milmay: ukumo iyo ugxan	>11 ppm	8-11 ppm	6-7 ppm	0-5 ppm
Wasakh ahaaneed	0 JTU	1-40 JTU	41-100 JTU	>100 JTU
Phosphate	0-1 ppm	2 ppm	3 ppm	>3 ppm
Nitrate	<2 ppm	2.5 ppm	5 ppm	20 ppm
pH	6.5-8.2	5-6.5 OR 8.2-9	4-5 OR 9-11	<4 OR >11

Waa maxay JTU?

JTU waxay u taagan tahay Jackson Turbidity Units (Unugyada Heerka Wasakhda ee Jackson). Saynisyahanka sameeyay tijaabada ayaa lagu magacaabi jiray Jackson. Waxaa laga yaabaa in maalin maalmaha ka mid ah uu jiri doono tijaabo cilmiyeysan oo adiga lagugu magacaabi doono!

Waa maxay PPM?

PPM waxay u taagan tahay Parts Per Million (Qaybaha Halkii Milyan). Tusaale ahaan, haddii baaritaankaagu si fiican ugu habboon yahay 2 ppm ee shaxda, taasi waxay ka dhigan tahay in 1 milyan oo molekiyuulada kasta oo ku jira muunadda biyahaaga, 2 ka mid ah molekiyuulada waa phosphate. Nitrate-ka iyo oksijiinta milmay ayaa sidoo kale lagu cabiraa ppm.

Pollution Solutions

Stormwater is rain that falls on streets or other developed land and flows into nearby streams and rivers. It can pick up pollutants as it runs off the streets and take that to the river through a storm drain. You will get the chance to brainstorm with your class ideas on how to stop stormwater pollution from entering our local streams.

1. What is your group's **stormwater pollutant**?

2. How does it get into the river/Puget Sound?

3. What are some **solutions** to keep your group's pollutant out of Puget Sound?

- What can you do today at home? What could you do at your school?

- What could you design for the future?

Xalka Wasakhda

Biyo Qulqula waa roob ku da'a waddooyinka ama dhul kale oo horumaray kuna qulqula durdurrada iyo wabiyada u dhow. Waxay soo qaadan kartaa wasakhowga marka ay ka baxdo waddooyinka waxayna taas u geyn kartaa wabiga iyada oo loo marayo daadad duufaan ah. Waxaad heli doontaa fursad aad kaga fikirto fikradahaaga fasalka sida loo joojiyo wasakheynta biyaha roobka ee soo gala durdurrada maxalliga ah.

1. Waa maxay kooxdaada **wasakhda biyaha qulqula**?

2. Sidee buu u galaa webiga/Puget Sound?

3. Waa maxay qeyb kamid ah **xalka** si aad uga ilaaliso wasakhda waxyaaabaha aad samaysan Puget Sound?

- Maxaad ku samayn kartaa maanta gurigaaga? Maxaad ku samayn kartaa dugsigaaga?

- Maxaad u qorshayn kartaa mustaqbalka?

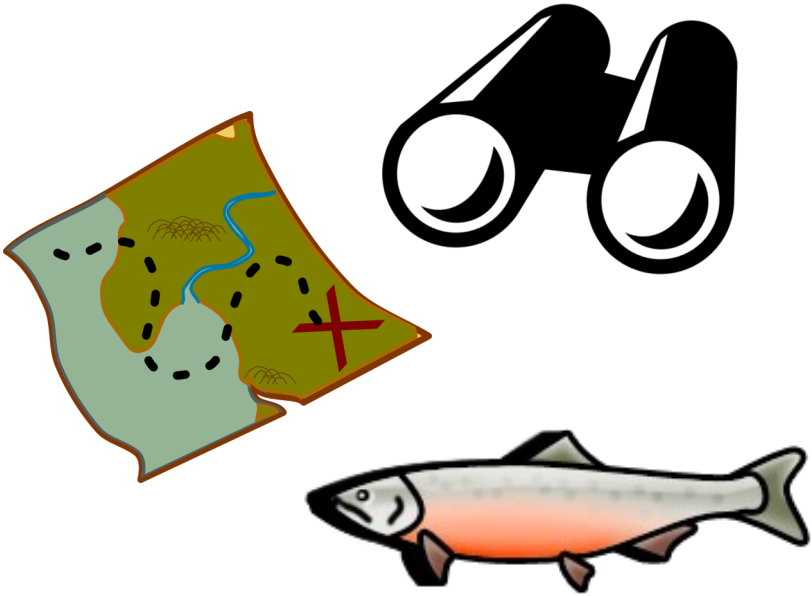
Continue your salmon connections!

Sii wad ku xirnaashagaaga Salmon!

Every fall is salmon SEE-son in King County! You can find more places to see salmon by visiting the website below:

Dayr kasta waa wiilka SSE ee salmon ee King County! Waxaad ka heli kartaa goobo badan si aad ku aragto salmon markaad booqato websaytka hoose::

http://bit.ly/salmonseeson



Congratulations! *Hambalyo!*

You are now an official Salmon Hero. You can cut out your Salmon Hero badge below. There are two sides to the badge. Be sure to write in your pledge for what you are going to do to help salmon!

Hadda waxaad tahay Halyeyga Salmon oo rasmi ah. Waxaad gooyn kartaa sumaddaada Halyeeyga Salmon ee hoose. Waxaa jira laba dhinac oo ku yaal calaamadda. U hubso inaad ku qorto ballan qaadkaaga waxaad samaynayso si aad uga caawiso salmon!

HALYEEYGA SALMON OO RASMI AH

ENVIRONMENTALSCIENCECENTER.ORG

S – Save the trees (Badbadi geedaha)
T – Turn off the lights (Dami nalalka)
R – Ride your bike
(Raac mootadaada)
E – Every poop, you scoop
(Saxaro kasta, waad qaadaysaa
A – All natural gardening (Dhammaan beeraha dabiiciga ah)
M – Make sure only rain down the storm drain
(Hubi in roobka oo kaliya hoos u daadiyaan daadadka duufaanta)
S – Share what you learned!! (La wadaag waxaad baratay!!)

ENVIRONMENTAL SCIENCE CENTER

OFFICIAL SALMON HERO

ENVIRONMENTALSCIENCECENTER.ORG

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ENVIRONMENTAL SCIENCE CENTER

Calaamaddan waxay xaqiijinaysaa in aan ballanqaadayo:

- Si loo caawiyo ilaalinta dadka salmon-ka duurjoogta ah iyadoo la ilaalinayo biyo-mareennada nadiifta iyo caafimaadka.
- Si aan u baro qoyskayga iyo asxaabtayda doorka muhiimka ah ee salmonku ka ciyaaro nidaamka deegaankeena.

Waxaan ballan qaadayaa inaan caawiyo Salmon-ka Baasifiga:

_____

Saxiixa **Taariikhda**

This badge certifies that I pledge:

- **To help protect wild salmon populations by keeping our watersheds clean and healthy.**
- **To educate my family and friends about the important role that salmon play in our ecosystem.**

I pledge to help Pacific Salmon by:

_____

Signature **Date**

You have learned so much about salmon and their habitat. Use the space in the box below to make another drawing of the best salmon habitat you can imagine!

Waxaad wax badan ka baratay salmon iyo deegaankooda. Adeegso booska ku yaal sanduuqa hoose si aad u sameyso sawir kale oo ah meesha ugu wanaagsan ee salmon ee aad qiyaasi karto!

Salmon Heroes is generously supported with funding from:

Heroes Salmon waxaa si deeqsinimo leh loogu taageeraa maalgelinta:

King County
Department of
Natural Resources and Parks
Wastewater Treatment Division

Snoqualmie Tribe

STILLAGUAMISH
TRIBE OF INDIANS

The Puyallup Tribe
of Indians

Outdoor Learning Grant
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WASHINGTON STATE
Recreation and
Conservation Office

The Wilderness Society

KING COUNTY
FLOOD CONTROL
DISTRICT

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

LAKE WASHINGTON • CEDAR SAMMAMISH WATERSHED

Green / Duwamish & Central Puget Sound
MAKING OUR WATERSHED
FIT FOR A KING

THE RUSSELL FAMILY FOUNDATION

KCD
King Conservation District

ENVIRONMENTAL
SCIENCE CENTER

www.EnvironmentalScienceCenter.org
206-248-4266
Programs@EnvironmentalScienceCenter.org