Have a partner trace the outline of your right hand, figures spread out and thumb toward the bottom of the page.

Alaska’s Five Salmon

Genus: __________________________ means ________________________________.
TECHNICAL DRAWING

KING salmon =
____________________

SILVER salmon =
____________________

RED salmon =
____________________
Five Species of Salmon

PINK salmon =
____________________

CHUM salmon =
____________________

www.adfg.state.ak.us
or Alaska’s Wild Salmon, pp 11-12
Where are you? ______________________, Alaska.
Put a small X on that spot on the map.

(city)

What major watershed do you live in? ________________________________

______________________________ . Please trace the major river in your watershed in blue.

On the following page, please draw a picture of the watershed that your salmon originate. Be sure to include the source, major tributaries, major land features (mountains, lakes, etc.), and the mouth.
## Looking ahead at salmon studies

<table>
<thead>
<tr>
<th>What do you know about…</th>
<th>What would you like to know about…</th>
</tr>
</thead>
<tbody>
<tr>
<td>The salmon life cycle?</td>
<td></td>
</tr>
<tr>
<td>Salmon needs and threats?</td>
<td></td>
</tr>
<tr>
<td>The water cycle?</td>
<td></td>
</tr>
<tr>
<td>Healthy salmon habitat?</td>
<td></td>
</tr>
<tr>
<td>Salmon anatomy?</td>
<td></td>
</tr>
<tr>
<td>Incubation?</td>
<td></td>
</tr>
</tbody>
</table>
Egg Take

Date: _________________________

Location: _________________________________ Time: _________________________

What is an “egg take?” Make a prediction.

____________________________________

Draw and describe:
## Egg Take Scavenger Hunt

<table>
<thead>
<tr>
<th>Item</th>
<th>Date:</th>
<th>Where:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmon Carcass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Something Manmade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salmon Predator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Something that Pollutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver Salmon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Habitat Damage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific Tool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator of Weather</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salmon Redd</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Habitat drawing and details

Describe your human habitat. What do you need for survival?

Describe your salmon habitat. What do they need for survival?
DRAW your salmon’s watershed!
Salmon life cycle

Life Cycle of the Pacific Salmon
(2 to 7 years)

- Silvery fish enter the rivers-headed for the spawning areas.
- Adult and grow to maturity in the Pacific.
- Enter the Pacific Ocean.
- And grow in the stream.
- Smolt migrate downstream.
- Fry emerge from the gravel in the spring.
- Alevin hatch from the egg.
- In the fall, spawning salmon deposit eggs in gravel nests and die.

Change in form and color as they advance.

Length of life cycle varies with species and conditions.

Thanks to the Oregon Department of Fish and Wildlife "Stream Scene" Curriculum.
# Salmon life cycle

<table>
<thead>
<tr>
<th>Life cycle stage</th>
<th>Needs</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Habitat</td>
<td>Food</td>
</tr>
<tr>
<td>Egg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alevin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smolt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Salmon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spawner</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Salmon external anatomy

Label with name and function of each structure.
Salmon internal anatomy
Label with name of structure

A __________________________________________________________________________
B __________________________________________________________________________
C __________________________________________________________________________
D __________________________________________________________________________
E __________________________________________________________________________
F __________________________________________________________________________
G __________________________________________________________________________
H __________________________________________________________________________
I __________________________________________________________________________
J __________________________________________________________________________
K __________________________________________________________________________
L __________________________________________________________________________
M __________________________________________________________________________
N __________________________________________________________________________
O __________________________________________________________________________
The Food Web

Draw in the plants and animals in the food web of one of the salmon’s major habitats (ocean, estuary, freshwater). Be sure to show who eats whom.

How would removing one organism in your habitat affect your food web?
As human beings, how do we impact the food web (other than pollution)?

1. Freshwater ____________________________________________________________

2. Estuary ________________________________________________________________

3. Ocean ________________________________________________________________
Salmon needs and threats

What stage is the most dangerous in a salmon’s life?
Support your answer with three facts that you’ve learned.

Most dangerous ____________________

1. ____________________________________
   ____________________________________

2. ____________________________________
   ____________________________________

3. ____________________________________
   ____________________________________

LIST four predators

1. ____________________________________

2. ____________________________________

3. ____________________________________

4. ____________________________________

What is the most dangerous stage in a human’s life?
Support your answer with three facts.

Most dangerous ______________________________________________________________

1. _________________________________________________________________________

2. _________________________________________________________________________

3. _________________________________________________________________________
Energy use

Choose two stages of the salmon life cycle.

Stage________________
Gets ENERGY from

Uses ENERGY to

Stage________________
 Gets ENERGY from

Uses ENERGY to
Compare & contrast organ

Respiratory system

Circulatory system

Reproductive system

Common Functions

Functions

Functions

SALMON

HUMAN

SALMON

HUMAN

SALMON

Reproductive system

SALMON
function of salmon vs. human

Skeletal system

Digestive system

Reproductive system

SALMON

HUMAN

SALMON

HUMAN

HUMAN

HUMAN
# Egg survival

## in the classroom tank

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>Loss</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Eggs

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>Loss</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Alevin

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>Loss</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fry

<table>
<thead>
<tr>
<th>Date</th>
<th>Total</th>
<th>Loss</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fishing Frenzy

...or...how do *you* catch salmon?

Where do you live?

Commercial or personal use?

Method of fishing?

What do you know about sustainable harvesting of a resource?
Fish Processing
How do you prepare/preserve salmon?
### Salmon Match Game

Write the word from the column on the left in front of the correct meaning.

<table>
<thead>
<tr>
<th>Humpy</th>
<th>1. A young salmon ready to go to sea.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chum</td>
<td>2. A round hole in a gravel bed where salmon eggs are laid.</td>
</tr>
<tr>
<td>Fry</td>
<td>3. To lay and fertilize eggs.</td>
</tr>
<tr>
<td>Alevin</td>
<td>4. Any fish that is hatched in fresh water but lives most of its life in salt water.</td>
</tr>
<tr>
<td>Spawn</td>
<td>5. Very tiny plants and animals that live in the sea.</td>
</tr>
<tr>
<td>Chinook</td>
<td>6. Salmon young that have used up their yolk sac.</td>
</tr>
<tr>
<td>Redd</td>
<td>7. Newly hatched salmon with its yolk sac still attached to its body.</td>
</tr>
<tr>
<td>Sockeye</td>
<td>8. A kind of circle of life. The chain of life from birth to death, to birth again.</td>
</tr>
<tr>
<td>Life cycle</td>
<td>9. The symbol of male animals.</td>
</tr>
<tr>
<td>![Male symbol]</td>
<td>10. The symbol for female animals.</td>
</tr>
<tr>
<td>Plankton</td>
<td>11. Another name for a smolt.</td>
</tr>
<tr>
<td>Fingerling</td>
<td>12. Red salmon</td>
</tr>
<tr>
<td>Anadromous</td>
<td>13. King salmon</td>
</tr>
<tr>
<td>Coho</td>
<td>14. Dog salmon</td>
</tr>
<tr>
<td>Smolt</td>
<td>15. Silver salmon</td>
</tr>
<tr>
<td>![Male symbol]</td>
<td>16. Pink salmon</td>
</tr>
</tbody>
</table>

16 right: Biologist  13-15 right: Better luck next time  10-12 right: Just getting started  Under 10 right: Well, I like to eat fish!
3–2–1 SPAWN

3 things I learned

2 things to tell my mom

1 question to ask Fish & Game
Only the strong survive
(adapted from the Alaska State Museum’s Salmon Kit)

Use the numbers below to find out how many salmon are left.
Use this page for your work.

1. A salmon deposited 5,000 eggs in a redd.  
2. Five-hundred (500) eggs were not fertilized.  
3. Sixty (60) were washed out of the gravel when a 3-wheeler crossed the stream.  
4. Mud from building a new subdivision eroded into the stream and suffocated one-thousand (1,000).  
5. Three-hundred (300) alevins died because they were very weak.  
6. After the alevins developed into fry, five-hundred (500) were eaten by other fish in the stream.  
7. Forty-one (41) were eaten by birds.  
8. As they neared the ocean, 260 salmon were caught in a pool where they got too hot because of thermal pollution from a coal-fired power plant.  
9. In the ocean 1,500 were eaten by bigger fish.  
10. Seals ate 95.  
11. Fishermen caught 556.  
12. As the salmon returned to their spawning stream, bears ate 180 of them.  
13. Three (3) were dashed against the rocks trying to jump a waterfall.  
14. The rest of the salmon spawned.  
15. HOW MANY SALMON WERE LEFT TO SPAWN?
Your favorite salmon recipe
Word search

Can you find the 13 “salmon words” in the square below? Some words may be diagonal or even backwards!

R E U S A M O N P V I Q U Y
M O Z R M N U Y L B D D E R
X N C G A P A K S O C I M F
S O C K E Y E D S P A U N T
L M A I R O D N R N A S B O
N L R O T I G N Y O V V S T
I A H B S P A W N M M I G K
V S I C L D E M E U N O T S
E G H S C T A R S H O N U T
L N S I A P E N U C T P A S
A I G R N O B B L E O P S I
Q K G U N S V E S T E H R D
S I E S P I N K S A L M O N
M S U H C N Y H R O C N O Y

1. ALEVIN
2. ANADROMOUS
3. CHUM
4. COHO
5. EGGS
6. FRY
7. KING SALMON
8. MIGRATE
9. PINK SALMON
10. REDD
11. SOCKEYE
12. SPAWN
13. STREAM
Things I’ve learned about salmon