## Salmon Survival Worksheet

## ONLY THE STRONG SURVIVE - CHINOOK

Chinook salmon spawn in large streams. A single female may lay as many as 5000 eggs, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many chinook adults will survive to spawn.


|  | Do the math in this space. |
| :---: | :---: |
| 1. A female chinook salmon deposited her $\mathbf{5 0 0 0}$ eggs in a series of nests, called redds, and a male fertilizes them. | 5000 |
| 2. $\mathbf{8 0 0}$ eggs were not fertilized. How many were fertilized? |  |
| 3. 600 eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left? |  |
| 4. Cutthroat trout and raccoons ate $\mathbf{4 5 0}$ eggs and alevin. How many survived? |  |
| 5. $\mathbf{1 2 0 0}$ alevin were washed out of the gravel by a heavy rainstorm and flooding. How many remained? |  |
| 6. Mud and silt from a construction site washed into the stream and suffocated 900 alevin. How many were left? |  |
| 7. $\mathbf{3 0 0}$ more alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained? |  |
| 8. 120 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived? |  |
| 9. 570 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left? |  |
| 10. As they neared the ocean, kingfishers and herons ate 51 smolts. How many smolts were left? |  |
| 11. In the ocean, 4 were eaten by orca whales. How many were not eaten by orcas? |  |
| 12. Someone fishing caught 1 adult. How many were left? |  |
| 13. As the salmon neared their spawning stream, sea lions ate $\mathbf{2}$ of them. How many salmon were left to spawn? |  |

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Chinook salmon spawn in large streams. A single female may lay as many as 5000 eggs, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many chinook adults will survive to spawn.


|  | Do the math in this space. |
| :---: | :---: |
| 1. A female chinook salmon deposited her $\mathbf{5 0 0 0}$ eggs in a series of nests, called redds, and a male fertilizes them. | 5000 |
| 2. $\mathbf{8 0 0}$ eggs were not fertilized. How many were fertilized? | 4200 |
| 3. $\mathbf{6 0 0}$ eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left? | 3600 |
| 4. Cutthroat trout and raccoons ate $\mathbf{4 5 0}$ eggs and alevin. How many survived? | 3150 |
| 5. $\mathbf{1 2 0 0}$ alevin were washed out of the gravel by a heavy rainstorm and flooding. How many remained? | 1950 |
| 6. Mud and silt from a construction site washed into the stream and suffocated 900 alevin. How many were left? | 1050 |
| 7. $\mathbf{3 0 0}$ more alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained? | 750 |
| 8. 120 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived? | 630 |
| 9. 570 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left? | 60 |
| 10. As they neared the ocean, kingfishers and herons ate 51 smolts. How many smolts were left? | 9 |
| 11. In the ocean, 4 were eaten by orca whales. How many were not eaten by orcas? | 5 |
| 12. Someone fishing caught $\mathbf{1}$ adult. How many were left? | 4 |
| 13. As the salmon neared their spawning stream, sea lions ate 2 of them. How many salmon were left to spawn? | 2 |

A single female chum salmon may lay as many as 3000 eggs in a large stream near salt water, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many chum adults will survive to spawn.

Do the math in this space.

1. A female chum salmon deposited her $\mathbf{3 0 0 0}$ eggs in a series of nests, called redds.
2. A male fertilized all but $\mathbf{4 8 0}$ eggs. How many did he fertilize?
3. $\mathbf{3 6 0}$ eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left?
4. Cutthroat trout and raccoons ate $\mathbf{2 7 0}$ eggs and alevin. How many survived?
5. $\mathbf{7 2 0}$ were washed out of the gravel by a heavy rainstorm and flooding. How many remained?
6. Mud and silt from a construction site washed into the stream and suffocated 540 eggs and alevin. How many were left?
7. $\mathbf{1 8 0}$ alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained
8. 72 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived?
9. 340 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left?
10. As they neared the ocean, kingfishers and herons ate 31 smolts. How many smolts were left?
11. In the ocean, 2 were eaten by orca whales. How many were not eaten by orcas?
12. Someone fishing caught 1 adult. How many were left?
13. As the salmon neared their spawning stream, sea lions ate 2 of them. How many salmon were left to spawn?

A single female chum salmon may lay as many as 3000 eggs in a large stream near salt water, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many chum adults will survive to spawn.


|  | Do the math in this space. |
| :---: | :---: |
| 1. A female chum salmon deposited her $\mathbf{3 0 0 0}$ eggs in a series of nests, called redds. | 3000 |
| 2. A male fertilized all but $\mathbf{4 8 0}$ eggs. How many did he fertilize? | 2520 |
| 3. $\mathbf{3 6 0}$ eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left? | 2160 |
| 4. Cutthroat trout and raccoons ate $\mathbf{2 7 0}$ eggs and alevin. How many survived? | 1890 |
| 5. $\mathbf{7 2 0}$ were washed out of the gravel by a heavy rainstorm and flooding. How many remained? | 1170 |
| 6. Mud and silt from a construction site washed into the stream and suffocated 540 eggs and alevin. How many were left? | 630 |
| 7. 180 alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained | 450 |
| 8. 72 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived? | 378 |
| 9. 340 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left? | 38 |
| 10. As they neared the ocean, kingfishers and herons ate 31 smolts. How many smolts were left? | 7 |
| 11. In the ocean, $\mathbf{2}$ were eaten by orca whales. How many were not eaten by orcas? | 5 |
| 12. Someone fishing caught 1 adult. How many were left? | 3 |
| 13. As the salmon neared their spawning stream, sea lions ate 2 of them. How many salmon were left to spawn? | 2 |

A single female coho salmon may lay as many as 2500 eggs in a medium-sized inland stream, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many coho adults will survive to spawn.


|  | Do the match in this space. |
| :---: | :---: |
| 1. A female coho salmon deposited her $\mathbf{2 5 0 0}$ eggs in a series of nests, called redds. | 2500 |
| 2. A male fertilized all but $\mathbf{4 0 0}$ eggs. How many were fertilized? |  |
| 3. $\mathbf{3 0 0}$ eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left? |  |
| 4. Cutthroat trout and raccoons ate $\mathbf{2 2 5}$ eggs and alevin. How many survived? |  |
| 5. 600 were washed out of the gravel by a heavy rainstorm and flooding. How many remained? |  |
| 6. Mud and silt from a construction site washed into the stream and suffocated 450 eggs and alevin. How many were left? |  |
| 7. 150 alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained? |  |
| 8. 60 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived? |  |
| 9. 283 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left? |  |
| 10. As they neared the ocean, kingfishers and herons ate 25 smolts. How many smolts were left? |  |
| 11. In the ocean, 2 were eaten by orca whales. How many were not eaten by orcas? |  |
| 12. Someone fishing caught 1 adult. How many were left? |  |
| 13. As the salmon neared their spawning stream, sea lions ate $\mathbf{2}$ of them. How many salmon were left to spawn? |  |

A single female coho salmon may lay as many as 2500 eggs in a medium-sized inland stream, but the salmon life cycle is full of threats and perils. Use the numbers below to figure out how many coho adults will survive to spawn.


|  | Do the match in this space. |
| :---: | :---: |
| 1. A female coho salmon deposited her $\mathbf{2 5 0 0}$ eggs in a series of nests, called redds. | 2500 |
| 2. A male fertilized all but $\mathbf{4 0 0}$ eggs. How many were fertilized? | 2100 |
| 3. $\mathbf{3 0 0}$ eggs were uncovered by other salmon competing over limited nest sites in good gravel and were washed away. How many fertilized eggs were left? | 1800 |
| 4. Cutthroat trout and raccoons ate $\mathbf{2 2 5}$ eggs and alevin. How many survived? | 1575 |
| 5. $\mathbf{6 0 0}$ were washed out of the gravel by a heavy rainstorm and flooding. How many remained? | 975 |
| 6. Mud and silt from a construction site washed into the stream and suffocated 450 eggs and alevin. How many were left? | 525 |
| 7. $\mathbf{1 5 0}$ alevins died because their redd was downstream from a parking lot where several old cars leaked toxic fluids. How many remained? | 375 |
| 8. 60 fry died when students let soapy from a car wash run into the stream through a storm drain. How many survived? | 315 |
| 9. 283 fingerlings died because trees in the watershed had been cut down and the stream didn't have enough shade to keep the water cool. How many fingerlings were left? | 32 |
| 10. As they neared the ocean, kingfishers and herons ate 25 smolts. How many smolts were left? | 7 |
| 11. In the ocean, $\mathbf{2}$ were eaten by orca whales. How many were not eaten by orcas? | 5 |
| 12. Someone fishing caught $\mathbf{1}$ adult. How many were left? | 4 |
| 13. As the salmon neared their spawning stream, sea lions ate 2 of them. How many salmon were left to spawn? | 2 |

