

# DISSECT A FISH

## MACKENZIE RIVER Environment & Outdoors



### THE ADVENTURE:

Go fishing during your camping trip! After you catch a fish for breakfast, lunch or dinner, dissect it before cooking to learn about different organs and how they interact with each other.

### PLAN:

- Do you want to do this adventure at camp or during a meeting?
- What meals could you make involving fish?
- What are the fishing regulations in your area? What preparations do you need to do to ensure you are following the law?
- Are the fish in your area safe for humans to eat?
- Form groups of two or three. Print enough copies of the fish anatomy poster for each group.
- Familiarize yourself with the **anatomy poster** and **dissection guide**. Prepare for the dissection either at home or with your Troop by practising with the interactive virtual dissection introduced in the online resources section.

### DO:

- Make sure your fish has been **humanely killed** before beginning the dissection. Stun the fish before killing it, by quickly drilling a sharp spike (such as an ice pick or sharpened screwdriver) into the brain of the fish, just above the eyes, and then by moving the spike around to destroy the brain of the fish. This ensures that we are not inflicting any pain on the fish during the dissection.
- Remember that you will be eating the fish afterwards so try not to damage the body of the fish.

### Activity #1: The Dissection Challenge

- Try to find each organ without looking at the anatomy diagram.
- If you are unsure, refer to the diagram for guidance.
- Once you have identified all of the organs on the anatomy diagram, discuss in your group how all of the organs are connected. What organs rely on each other? Are any organs unnecessary?
- To make it a competition, give each group two minutes to find a specific organ. Each group who identifies the organ correctly will receive two points. Groups that have made a mistake or were unable to find the organ can look at the diagram, and take another two minutes to try again. Each group that can identify the organ after its members have seen the picture will receive one point.

### Activity#2: Fish Ecology

- Dispose of your fish guts far from the campsite, on a rock that is visible to your Troop and other animals. What do you notice?

### REVIEW:

- What do you know now that you did not know before?
- How did you work as a team?
- What would happen to the ecosystem if fish were completely removed?
- How did it feel to do the Adventure?
- What elements of STEM were in this Adventure? Science? Technology? Engineering? Mathematics?
- What did you like about this Adventure? What did you not like?
- How would you do it differently?



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## MATERIALS:

- Fishing supplies
- Means of disposing of fish guts, either far from your campsite or through an appropriate composting system.
- Bucket of water
- Cleaning supplies

For each dissection team:

- Sharp knives or scalpels
- Scissors
- Tweezers or forceps
- Latex or nitrile gloves
- Magnifying glass
- Print of the Sample Fish Anatomy
- Newspapers
- Cutting board

## ONLINE RESOURCES:

- How to clean a trout
- A step-by-step guide for dissection
- For an interactive virtual dissection game visit
- How to make sustainable seafood choices
- Seafood Watch app is a tool that helps you make sustainable seafood choices
- National Recreational Fishing Regulations
- How to humanely kill a fish

## SAFETY TIP:

- Wash your hands before and after touching the fish. Wash any surfaces that have been touched by raw fish.
- Handle all knives carefully. Knives are tools, and are not to be played with.

