

ANATOMICAL SYSTEMS

Students examine basic anatomical systems that support life in plants and in salmonids.

GRADE

1st - 6th

NEXT GENERATION

LS1-1, MS-LS1-3

TIME

25 minutes Session 1

60 minutes Session 2

LEARNING OBJECTIVES

- Understand how plants and animals have systems that enable them to grow, survive, and reproduce.
- Examine the basic systems of a salmonid and how they interact.
- Cultivate inquiry and observation skills.
- Encourage curiosity to learn more.

PREPARATION

1. Schedule an in-class dissection of an adult salmon carcass or a field trip that includes a dissection. If in-class, coordinate timing and set-up details with the presenter.
2. Make one copy each of the attached diagrams of plant and internal salmonid systems to show on your overhead projector.
3. Review these suggested groupings of body parts by system:
moving: all the fins, swim bladder
breathing: gills, gill cover
sensing: eye, nostril, brain, spinal cord, lateral line
processing food: stomach, liver, intestine, kidney, urinary bladder, anus
nourishing the body: mouth, heart
reproducing: gonad

WHAT TO DO

Session One

1. Show and discuss the image of basic plant systems, emphasizing parts that enable a plant to grow, survive, and reproduce.
2. Define “salmonid” for your students: *A family of fish that includes salmon and trout.*
3. Show the image of internal salmonid systems, emphasizing the six basic systems.
4. Ask students to call out which body parts apply to each system.
5. Tell students that they will be seeing a dissection of a salmon carcass and ask them to work individually, in small groups, or as a class to develop questions to ask during the dissection.
6. Preview the students' questions with the presenter.

Session Two

1. Review common courtesies that students will need to show their guest doing the dissection or, if during a field trip, show the person in charge.
2. Tell students to ask their questions if they aren't answered during the dissection. Invite additional questions at the end as time allows.
3. After the dissection, engage students to evaluate what went well, what could have been better, and what they are now curious about.

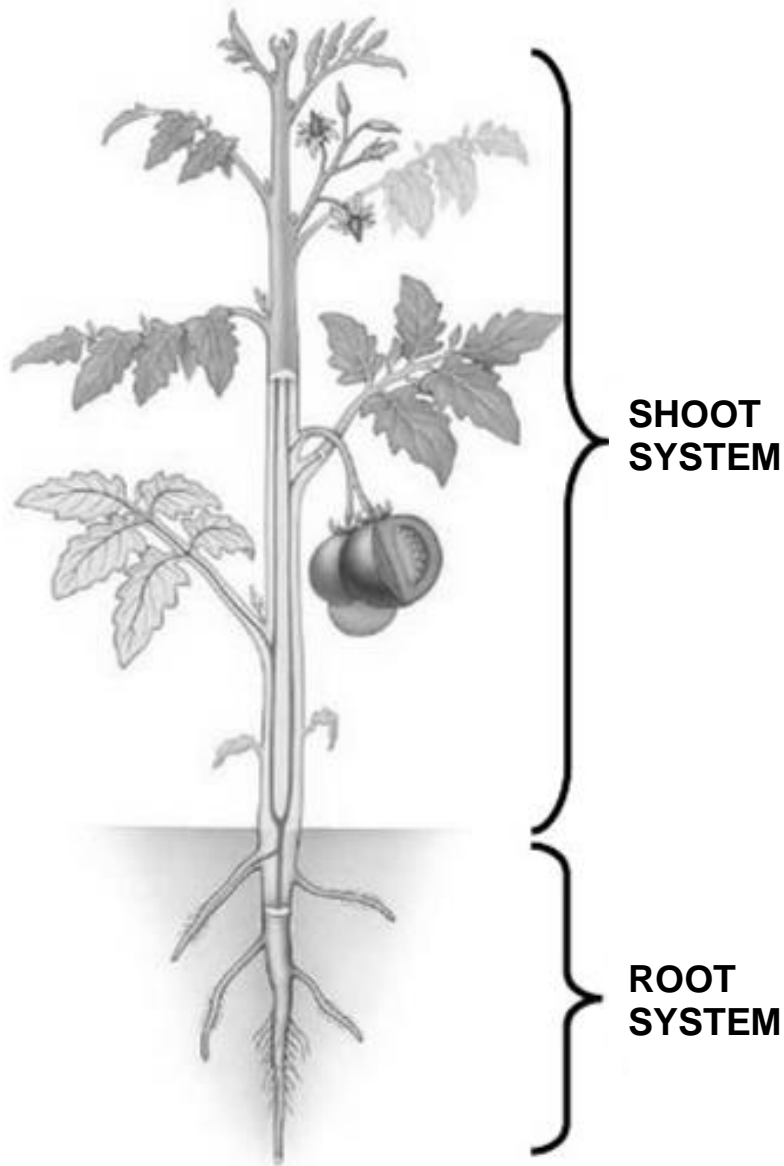
OPTIONS

Make copies of the external anatomy diagram and ask students to fill in part names as presented. Make copies of the internal systems diagram and ask students to check off each part as presented.

NOTE

Simplify this lesson as you see fit for very young students.

BASIC SYSTEMS OF A PLANT



**SHOOT
SYSTEM**

WHAT THE SHOOT SYSTEM DOES

- produces sugars for growth
- takes in carbon dioxide & releases oxygen
- circulates & stores food & water
- makes seeds

**ROOT
SYSTEM**

WHAT THE ROOT SYSTEM DOES

- anchors the plant in the soil
- absorbs food & water from the soil
- stores food

INTERNAL SYSTEMS OF A SALMONID

MOVING

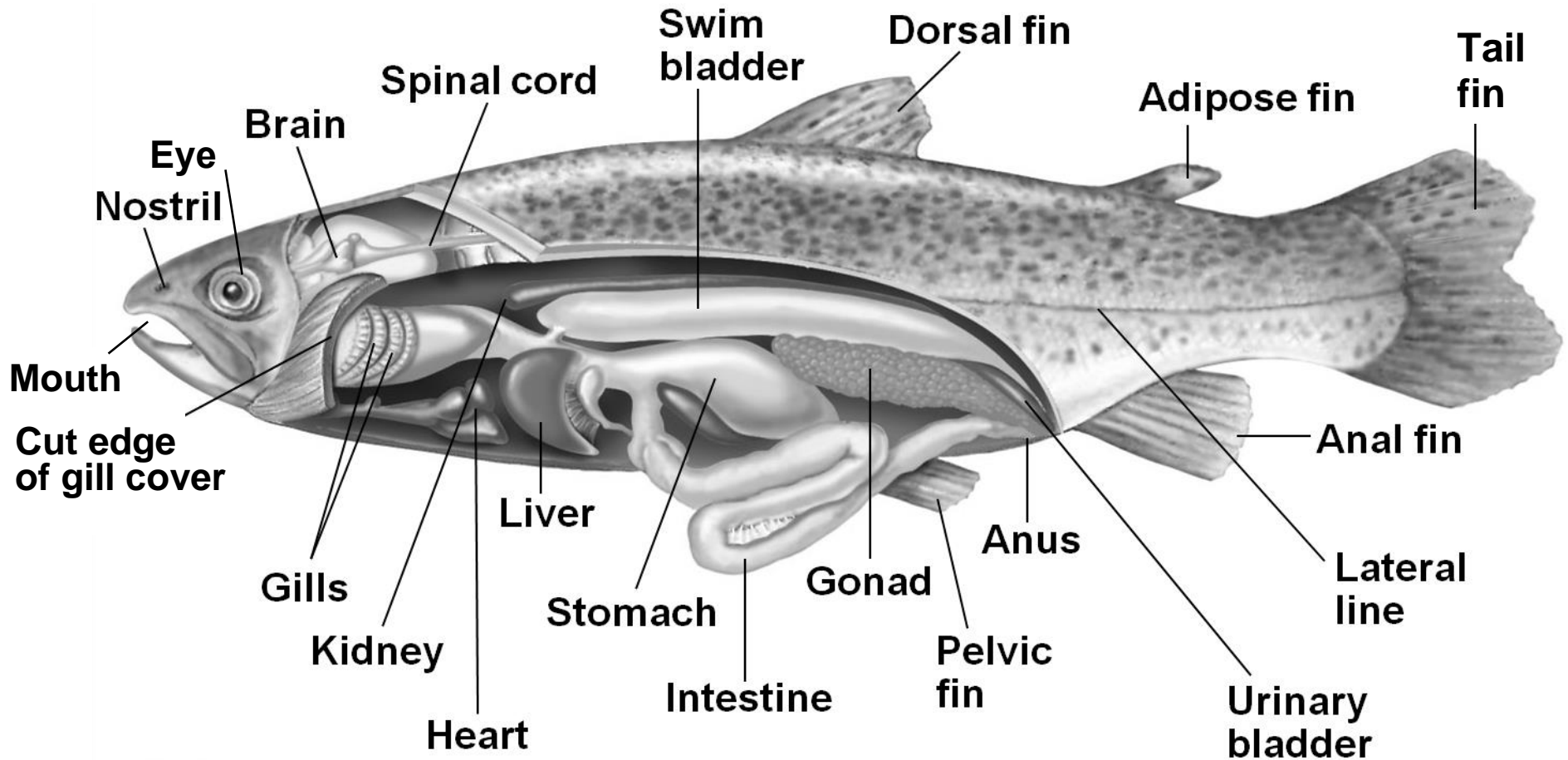
PROCESSING FOOD

BREATHING

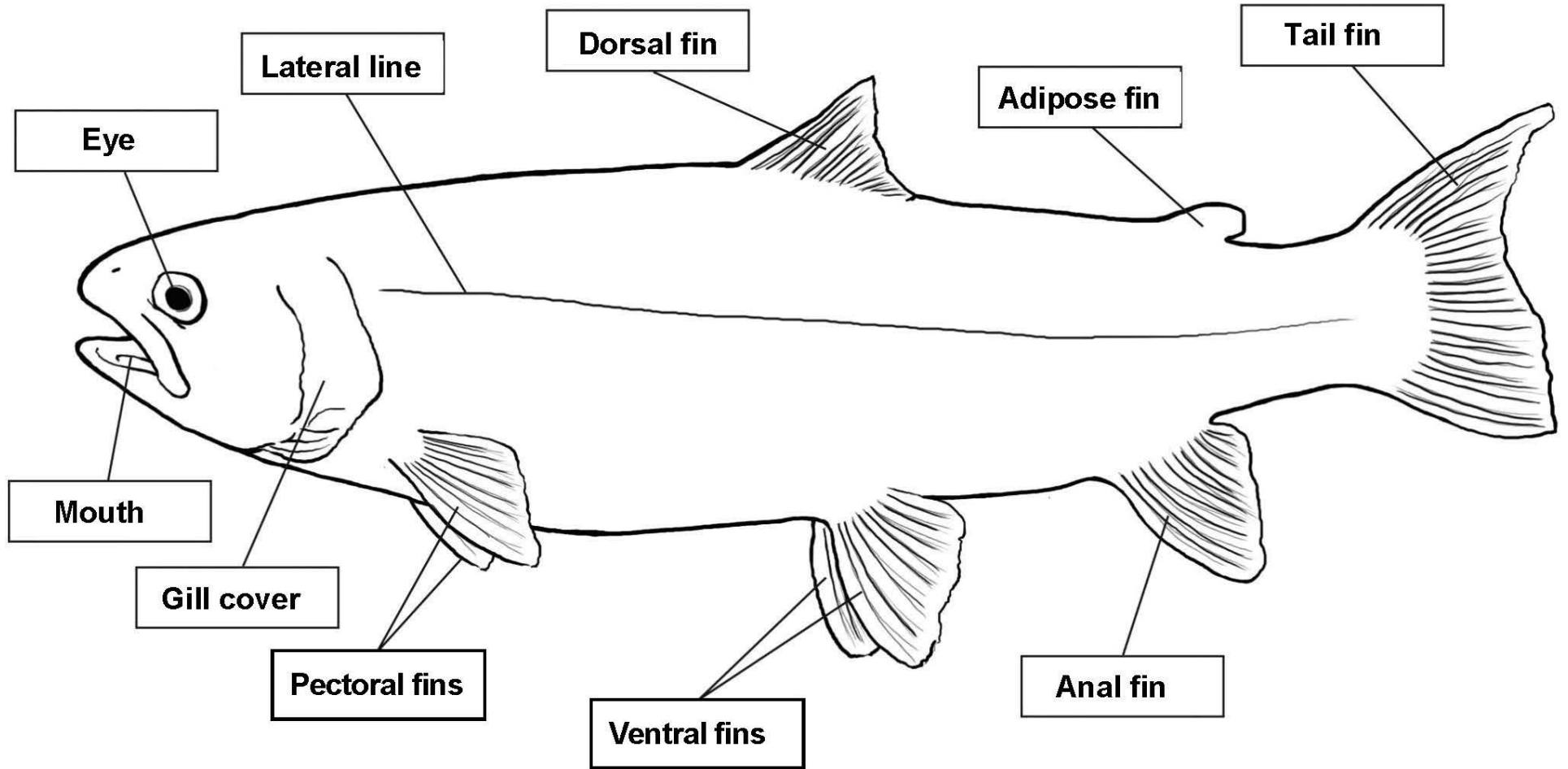
SENSING

NOURISHING THE BODY

REPRODUCING



EXTERNAL ANATOMY OF A SALMONID (TEACHER GUIDE)



EXTERNAL ANATOMY OF A SALMONID

