

Fish Teacher Guide

Introduction:

Fish are cold-blooded animals that have fins and vertebrae. Fish exchange gases through their gills and have scales for protection. This model represents the anatomy of a freshwater fish.

Worksheet Guide:

Materials needed: *Fish Model*, *Fish Quick Start Guide*, *Fish Worksheet* and *Fish Worksheet Answer Key*.

Steps for using the *Model* with the *Worksheet*:

Step 1: Have students study the location of fish anatomy using the *Quick Start Guide* and the *Model*.

Step 2: After using the *Quick Start Guide* to gain an understanding of fish anatomy, hand out the *Worksheet* for students to complete.

Step 3: See the *Answer Key* to correct the *Worksheet*.

Key Terms and Definitions:

Discuss and demonstrate the location and function of these parts on the *Fish Model*:

Internal Anatomy:

Brain – nerve processing center

Spinal Cord – delivers the signals from the brain

Liver – assists in digestion by secreting enzymes that break down fats, stores fats and carbohydrates, destroys old blood cells to maintain proper blood chemistry, and plays a role in nitrogen (waste) excretion

Swim Bladder – an air-filled bladder used to keep the fish buoyant

Stomach – digests food

Pyloric Ceca – secretes enzymes that aid in digestion

Gonad – houses the reproductive organs

Kidney – filters liquid waste from the blood and regulates water and salt concentrations within the body

Heart – pumps blood through the fish

Gills – exchange gases between the fish and the water, allow fish to absorb oxygen, and give off carbon dioxide

External Anatomy:

Fins – help fish turn and balance

Caudal Fin – moves fish forward

Eyes – let fish see

Scales – give fish protective covering

Nare – let fish smell in water

Mouth – let fish eat and inhale water

Operculum – protective cover for gills, also used for respiration and feeding

Name: _____ Class: _____

Fish Model Worksheet

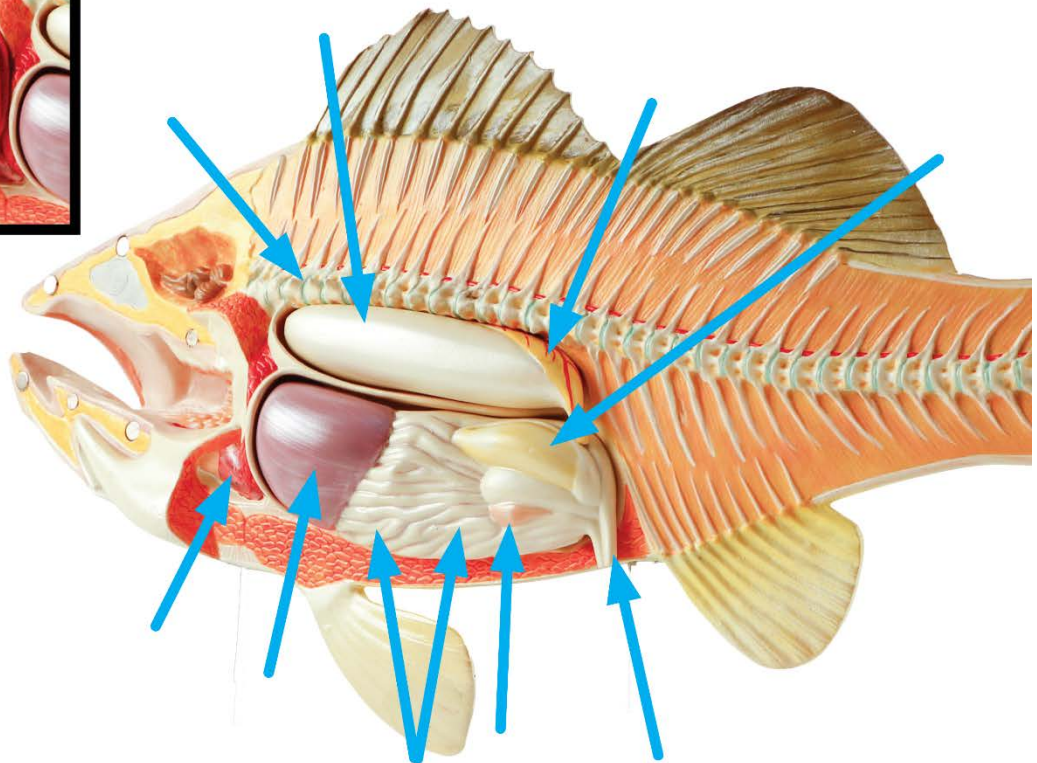
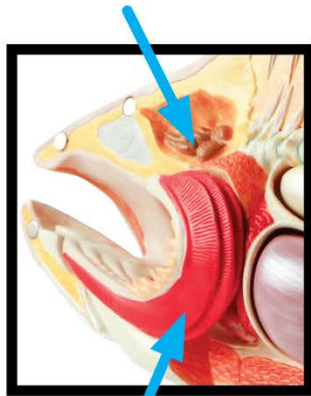
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Internal Anatomy Activity:

Write in the correct anatomy landmarks on the picture below:

- | | | |
|-----------------|-----------------|-----------|
| 1. Brain | 5. Stomach | 9. Anus |
| 2. Spinal Cord | 6. Pyloric Ceca | 10. Heart |
| 3. Liver | 7. Gonad | 11. Gills |
| 4. Swim Bladder | 8. Kidney | |

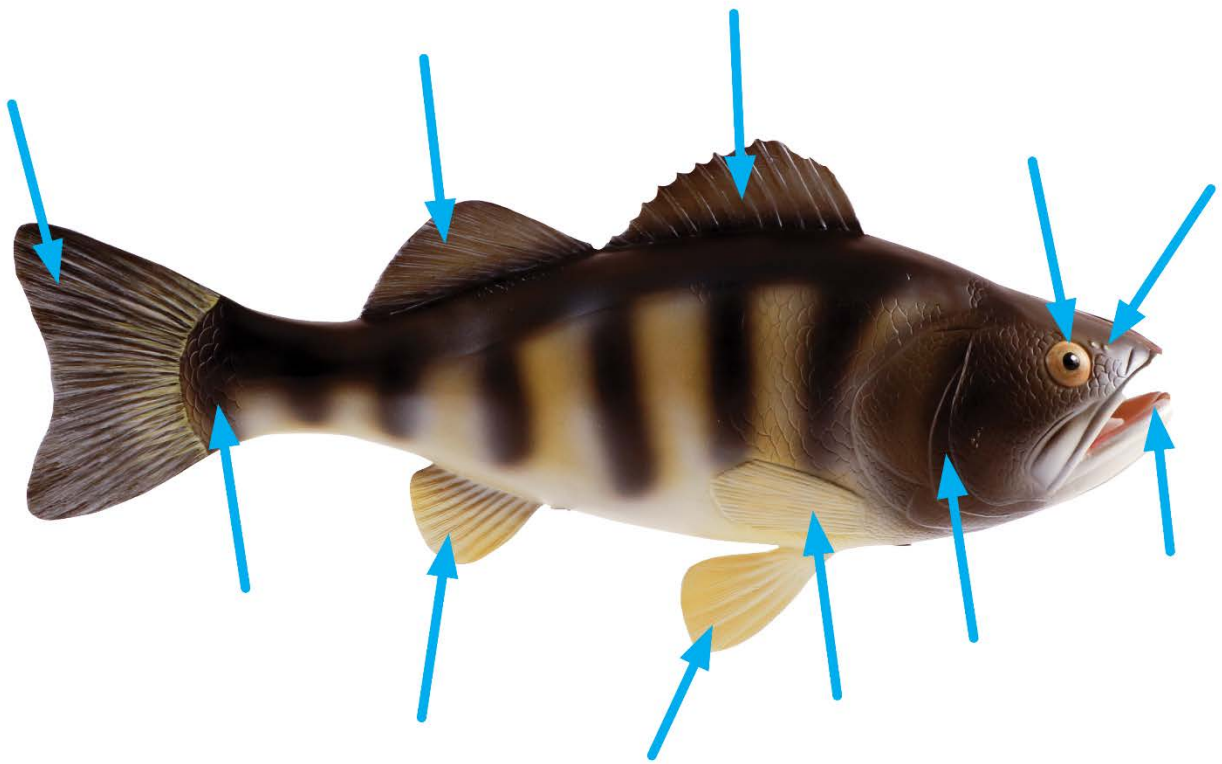


Fish Model

External Anatomy Activity:

Write in the correct anatomy landmarks on the picture below:

- | | | |
|---------------------|-----------------|---------------|
| 1. Spiny Dorsal Fin | 5. Pelvic Fin | 9. Nare |
| 2. Soft Dorsal Fin | 6. Pectoral Fin | 10. Mouth |
| 3. Caudal Fin | 7. Eyes | 11. Operculum |
| 4. Anal Fin | 8. Scales | |



Fish Model Worksheet Answer Key

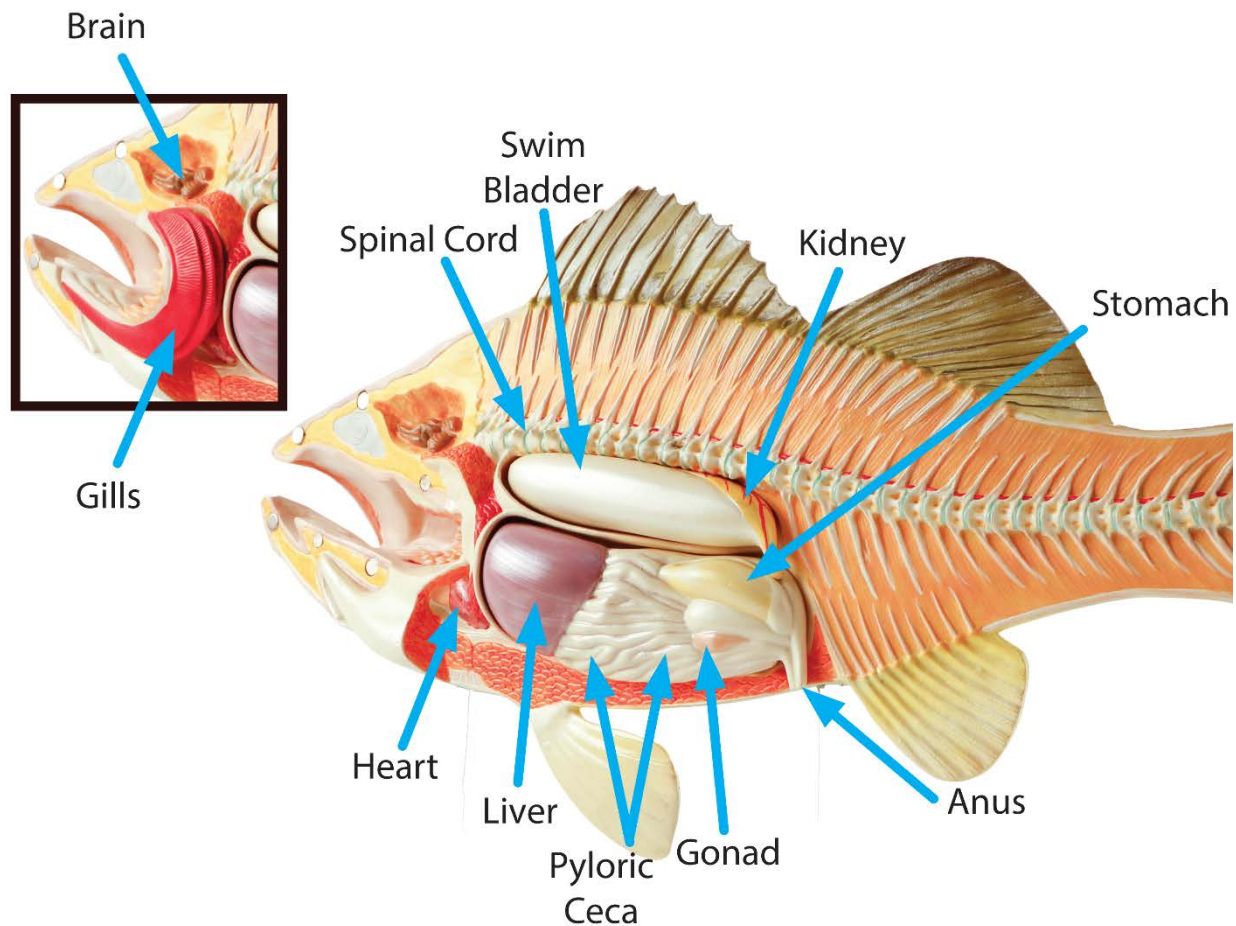
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Fish Model

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