

Lab directions

1-Rinse the fish in the sink to remove the preserving fluid, and place it in the dissecting pan.

2- Observe the body of the fish, then cut out all the different types of fins and glue them to the fish diagram on your data sheet 1. (The pectoral fins are located on each side of the fish, just behind the head, the dorsal fins are located on the dorsal side of the fish, the caudal fin is the tail fin, the anal fin is located along the ventral side near the anus, the pelvic fin is located on the ventral side.)

3-Run your fingers over the anterior dorsal fin and the posterior or dorsal fin and fill in the spaces for # 1 on your data sheet 2.

4-Locate the lateral line, it is a series of grooves a long the skin that run nearly the length of its body, cells in the lateral line are sensitive to vibration in the water, cut it with use of a dissecting scissors and glue it to the fish diagram on your data sheet 1, fill in the spaces for # 2 on your data sheet 2.

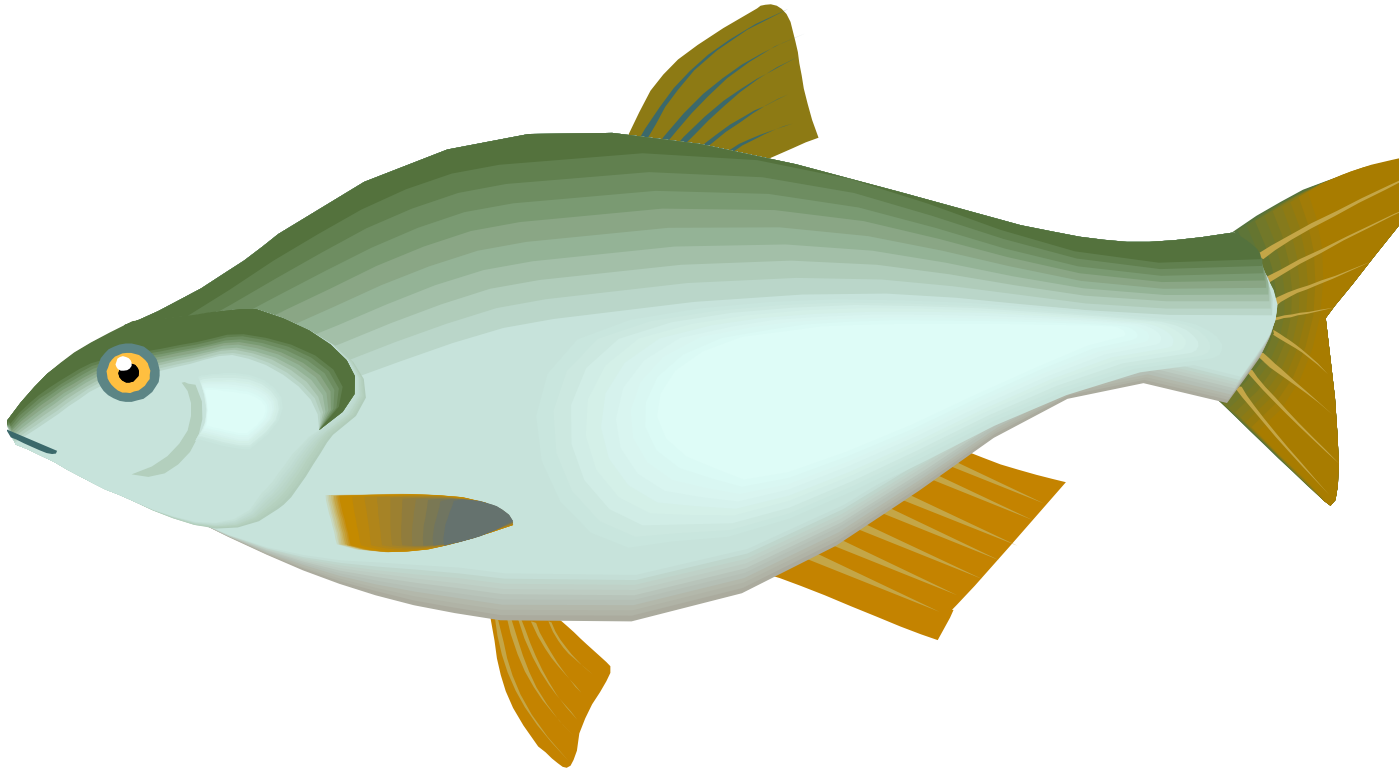
5-Use the forceps to remove a scale from the fish place the scale on a slide and observe it under the microscope. The rings in the scale are growth lines, like the growth rings in a tree trunk. The rings form as the fish grows, count the rings and fill in the spaces for # 3 on your data sheet 2.

6- Remove all the scales from one side and glue it to the fish diagram on your data sheet 1.

Find the semicircular flap, or operculum, that covers the gills. Lift the flap to expose the gills. Use the scissors to cut the operculum off one side of the fish. Each gill consists of feathery filaments attached to a gill arch. The hard structures attached to the gill arch are called the gill rakes. Use the dissecting probe to lift and examine these structures; fill in the spaces for # 4 on your data sheet 2.

7-Glue the gills to the fish diagram on data sheet, then glue the operculum above it. Fill in the spaces for # 5 on your data sheet 2.

Data sheet 1



Data sheet 2

Analyses & Conclusions:

1-The anterior dorsal fin isand the posterior dorsal fin is.....

2- The function of the lateral line in fish is.....

3-Based on your examination of the scale, the age of your fish is.....

4-The function of the operculum is.....

5-The function of the gills is.....

POST ACTIVITY QUIZ

1-From just looking to the external body structures of a fish what do you think made it possible for a fish to swim and survive in the water?

2-Placoderm is a prehistoric extinct fish. Go to this website: www.mdgekko.com/devonian/who/pages/placoderm.html Read the article and examine the placoderm's picture. Make a comparison between the external structure of the fish on your data sheet 1 and the placoderm . From your analysis of your comparison, what are the factors that participated in the extinction of the placoderm?

Answer key for data table 1

1-spiny. Soft.

2-sensation.

3-the answer will be different for each fish.

4-protect and cover the gills.

5-gas exchanges.

Answer key for the post activity quiz

1-The shape of its body, the present of fins, gills, operculum, pigments,
The student should explain the function of each one of them.

2-type of skin, body shape, gills, etc...
its body shape, predators, inability to adaptations, etc...