
LESSON 1

ANATOMY OF AN ANCIENT FISH

Activity 1: Sketch a Sturgeon

Students examine images of sturgeon anatomy and create an artistic rendering of their own.

Activity Preparation

Pre-Reading

Have students read Chapter 1: Living Dinosaurs p. 1-13 in "Saving Our Sturgeon."

Prior Knowledge

Basic studio skills, including the care and proper use of artistic tools.

Key Vocabulary

Anal fin: located along the ventral surface of the fish, behind the pelvic fins and before the caudal fin, is used to stabilize the fish.

Barbels: "whiskers" on a sturgeon's face that help them sense food.

Caudal fin: often called the tail fin, the main power source for forward movement in fish. Located along the back of the fish, is used to stabilize the fish.

Dorsal fin: located along the back of the fish, is used to stabilize the fish.

Dorsal view: a view from the top of the organism.

Girth: the distance around its body at its thickest point, typically measured at the midsection just in front of the dorsal fin.

Lateral view: a view of an organism from the side, showing its profile.

Pectoral fin: each of a pair of fins situated on either side just behind a fish's head, helping to control the direction of movement during locomotion.

Perspective: in art, perspective is the technique of representing three-dimensional objects on a two-dimensional surface so that their height, width, depth, and position appear accurate from a specific viewpoint.

Pelvic fin: located on the sides of the body near where legs would be found in other animals, are used for turning, backing up, stopping, and balancing.

Protrusible: able to be protruded (extended). The sturgeon has a protrusible mouth which can be extended to capture food.

Ratio: the relationship between two or more things in quantity, amount, or size.

Scutes: a bony plate scale generally used for protection. Sturgeon have five rows of scutes along their bodies

Ventral view: a view from the underside of the organism.

Objectives

After participating in this activity, students can:

Create an original drawing of a sturgeon that reflects the artistic properties of perspective and scale through exploration of sturgeon anatomy.

Describe the physical characteristics (e.g., scutes, fins, barbels, cartilage, torpedo-shaped bodies, etc.) that are different or the same among the sturgeon species in Wisconsin.

Wisconsin Academic Standards

Assessed

Art

A.A.Cr.7.m

Covered

Art

A.A.Cr.8.m

Great Lakes Literacy Principles

Principle 5

The Great Lakes support a broad diversity of life and ecosystems.

Files Needed

- Sketch a Sturgeon (slideshow)
- My Sturgeon Notes (handout)
- My Sturgeon (handout)

Materials Needed

- Ruler
- Drawing supplies
- Paper large enough to serve as a visual shield over the hand

Activity Steps

Total estimated activity time – 60 minutes

Begin by having students set up their “art studio.” Distribute the “My Sturgeon Notes” handout. Remind students of the artistic concepts of perspective and scale and to notice and incorporate elements of art: color, pattern, and texture of the sturgeon.

Run slideshow and follow script. During slideshow, ensure students pick a species of sturgeon to draw and make notes on key features to include in their artwork.

Some ideas for them to consider:

1. Students may wish to begin by pressing very lightly with a pencil to create a contour sketch of the sturgeon.
2. Many of the photographs have color gradation. This could be a great skill for the students to practice. Colored pencils work well for this.
3. The coloration of the young sturgeon provides effective camouflage and serves the purpose of protecting the fish until they grow. We see mottled speckling and dark blotches on their sides and snout which mimics the gravel, sand, and other materials where they travel. They are also lighter in coloration, helping them to blend in. If the students choose to draw a juvenile, remind them to consider this. Perhaps their drawing and the background can incorporate that?