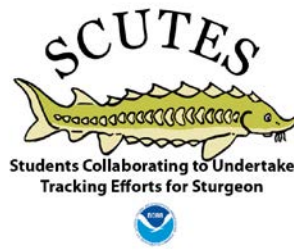


Topic/Lesson:	Sturgeon Life Cycle
Objectives:	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Recognize that Atlantic sturgeon go through predictable life cycles that include birth, growth, development, reproduction, and death. • Correctly order the stages of an Atlantic sturgeon’s life cycle. • Correctly label the stages of the Atlantic sturgeon’s life cycle. • Create a life cycle poster with the life cycle pictures in the correct order and accurately labeled.
Materials:	<ul style="list-style-type: none"> • Poster paper • Scissors • Sturgeon life cycle image paper (see below) • Markers/colored pencils/crayons • Glue sticks/glue • Life Cycle Fact Sheet (see below)
Vocabulary:	<ul style="list-style-type: none"> • Life cycle • Atlantic sturgeon • Embryo • Yolk sac larvae • Larvae • Development • Juvenile • Adult • Birth • Death • Reproduction • Fingerling
Procedures:	<ol style="list-style-type: none"> 1) Recall/discuss student’s knowledge of any previously studied animals’ life cycles. 2) Teacher writes key ideas and vocabulary on the board from the class discussion. 3) Read Sturgeon Life Cycle Fact Sheet out loud as whole class. 4) Discuss the assignment and activity. Inform students that they will be creating a life cycle poster. Students will cut out pictures of the sturgeon’s different life stages and paste them in the correct order. Students must then accurately label each stage on the poster.

	<p>5) Teacher models process for students to observe.</p> <p>6) Students get materials needed and then may begin working on their assignment individually.</p> <p>7) Teacher walks around assisting students as necessary.</p> <p>8) Give a five-minute warning time before class ends.</p> <p>9) Teacher recalls students' attention and gives directions to begin clean up.</p> <p>10) Collect students' life cycle posters.</p> <p>11) Discuss tonight's homework assignment. Students will write one paragraph comparing and contrasting the sturgeon's life cycle to another animal's life cycle of their choice.</p> <p>To make this an active outdoor/gym activity:</p> <ol style="list-style-type: none"> 1) Have a life cycle scavenger hunt where the students are broken up into teams and each team has to find all life stages that are scattered and hidden around the room and put it on their home bulletin board/poster. 2) Assign students a different life stage and have them try to get in line in order of life stage without verbally speaking to one another.
<p>Accommodations/ Modifications:</p>	<ul style="list-style-type: none"> • Peer partnering • Vocabulary word bank • Written step-by-step directions • Modeling/scaffolding • Preferential seating





Name: _____

Sturgeon Life Cycle Fact Sheet

There are six major life stages of an Atlantic sturgeon. The first stage of an Atlantic sturgeon is an embryo. The second stage is a yolk sac larvae. An Atlantic sturgeon's third stage in their life cycle is a larvae. Sometimes scientists or researchers may also call sturgeons in this stage fry. The fourth stage happens when the fish becomes a fingerling. Next the Atlantic sturgeon enters the fifth stage, and is called a juvenile, or subadult. The last and sixth stage of the sturgeon is when they grow up and become an adult.

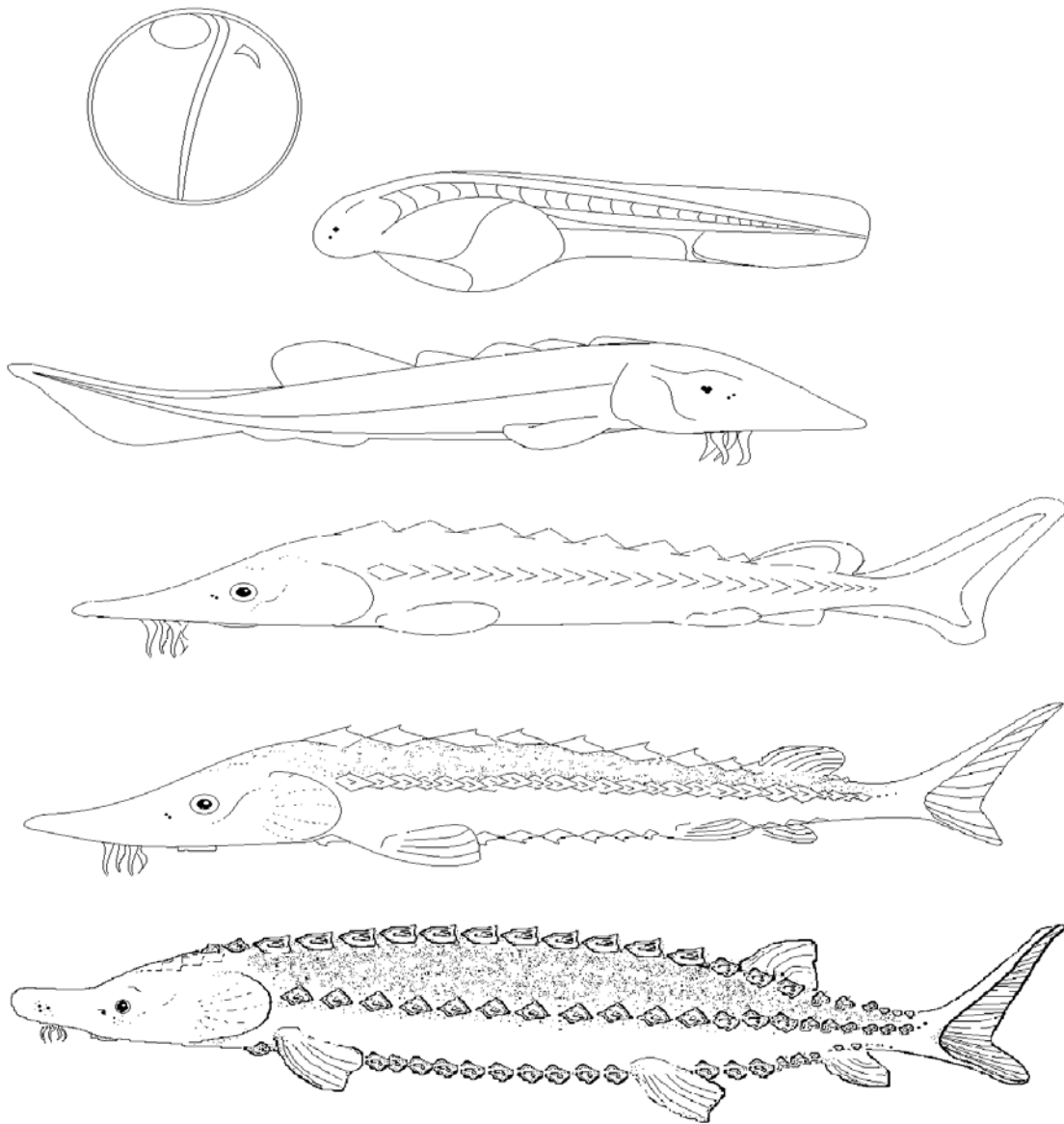
An embryo is an egg. Fertilized eggs that survive develop into fish. After the fish hatch from the embryo they enter the second stage where they are called yolk sac larvae.

When the larvae first hatch out of the egg, they still have the yolk sac attached to them. This yolk sac helps them survive by initially providing the nourishment they need while they are growing. Fish at this stage are not able to hunt or eat other food. In order to survive yolk sac larvae remain on the bottom or sides of the river, under rocks or vegetation in order to hide from predators.

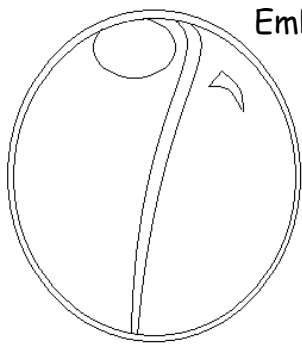
When the yolk sac is completely gone, the sturgeon enters the next stage as a larvae or fry. Without the yolk sac attached to them they are able to move better and forage or look for food. At this stage they become much more independent and are able to hunt for food on their own. The diets of larvae consist mostly of vegetation, zooplankton, and small insects. As the fish grow they enter their next stage called a fingerling. Fish at this stage are usually around the size of a human's finger. When the fish get larger they may begin to migrate downstream where they will stay as juveniles.

As the fish grow, they enter the fifth stage of a juvenile or subadult. These sturgeons are not mature adults yet. Atlantic sturgeon reach the last stage in their life cycle when they become adults. As adults they are mature and able to reproduce.

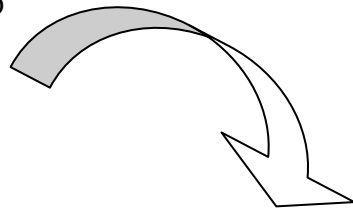
Atlantic Sturgeon Life Cycle Images



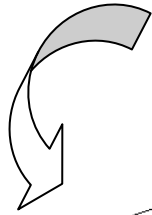
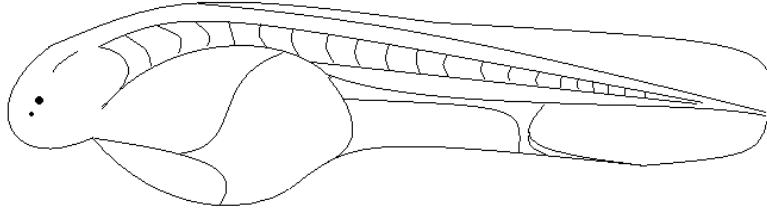
Life Stages



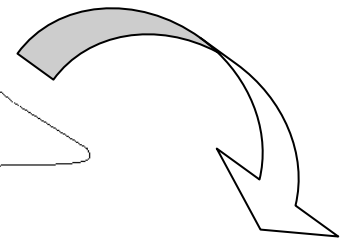
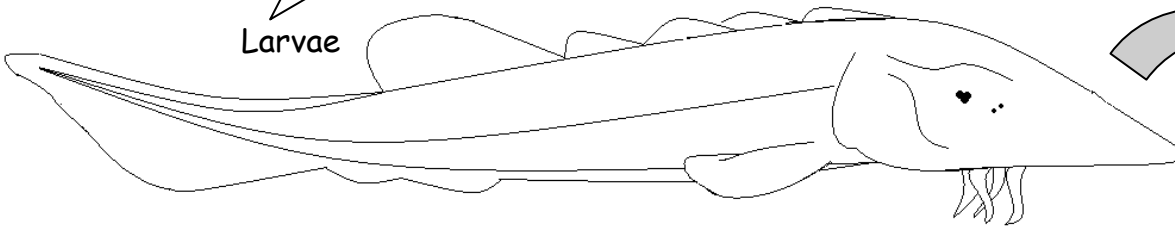
Embryo



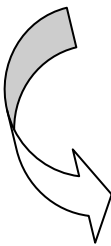
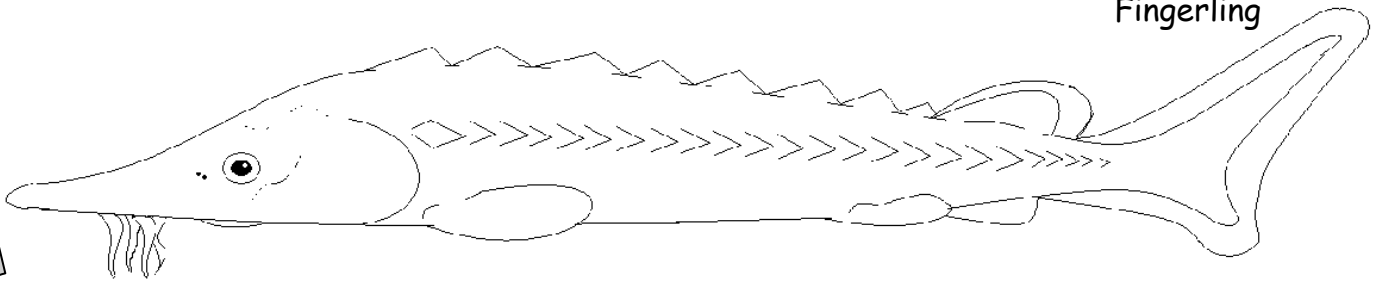
Yolk sac larvae



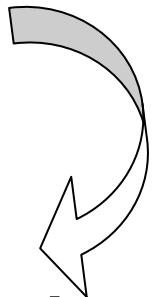
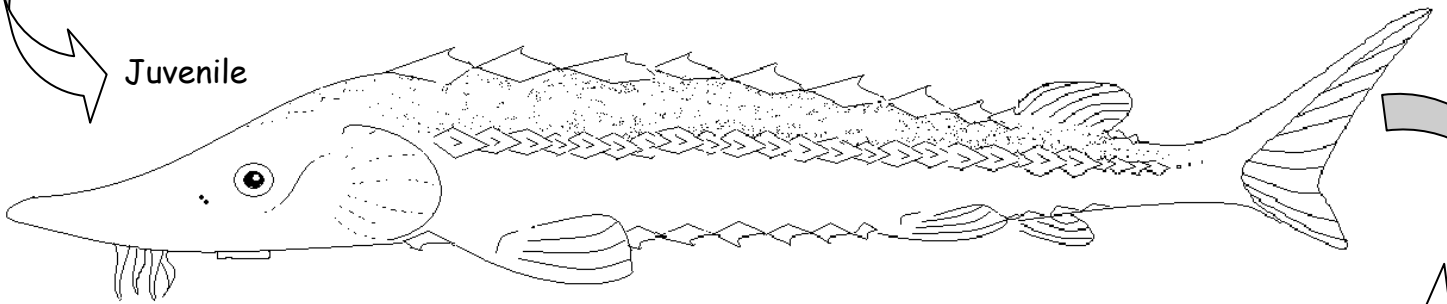
Larvae



Fingerling



Juvenile



Adult

