



JRA 360 Scavenger Hunt Questions

Directions: Students, watch the Virtual Reality Experience to answer these questions. Make sure to listen carefully and don't forget to go to the still image to see six James River organisms up close and personal.

1. Name and describe two adaptations that the Blue Crab has to protect itself.

Answer: 1. The blue crab has a hard outer shell for protection against predators. 2. The blue crab has two claws that it can use to defend itself. 3. The shape and color of its shell help it blend in, or hide, in the grasses, or muddy, sandy bottom of the river.

2. *Time to Research:* Why do you think the Atlantic Sturgeon is called a "living fossil" and what are scutes?

Answer : Atlantic Sturgeon are called living fossils because their species has existed more than 120 million years. Atlantic Sturgeon were around during the age of the dinosaurs. These large fish have prehistoric protective bones running along the outside of its body - they are called scutes. These bones are kind of like armor to protect the sturgeon.

3. Why do you think many fish swim together in large groups called schools?
 - a. The fish like to hang out with their friends
 - b. The school can move faster in the water if they work as a team
 - c. Predators can confuse a large school of small fish as one large predatory fish

Answer is C

4. *Time to Research:* What are the benefits of filter feeders? How many gallons of water does an average size American Oyster filter?

Answer: The primary benefit of a filter feeder is that it brings in a lot of water and filters out tiny algae, sediment, etc. As the filter feeder eats the algae and sediment and returns clean water to the river, it increases the water clarity of the river and helps sunlight infiltrate the water column. Oysters purify the James River as they filter the water for their food . An adult oyster can filter up to 50 gallons of water per day.

5. What role do underwater grasses play in the James River?

Answer: Underwater grasses provide habitat for other creatures of the river and hold down sediment.

6. Why are Lined Seahorses considered a key indicator species of the James River?

Answer: Lined Seahorses can only live in rivers with high water quality. They are susceptible to pollution and will not survive in rivers that don't have good living conditions. If Lined Seahorses are able to survive in the James River, it is an *indicator* that the water is healthy enough to support this susceptible species.