Renata Savannah

Grade Level: ____5th_____ Subject Focus: Science

Georgia Standard of Excellence (GSE)	**1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.** **a. Develop a model that illustrates how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal) using data from multiple sources**
Learning Target(s) Targets must be aligned to the GSE and with the assessment(s); targets should be stated as measurable (e.g. 'I can' statements for students).	**1. I can label the parts of a fish** **2. I can describe the adaptations that a fish has that allows it to survive**
Materials What resources will be needed to engage students? Be as precise as possible	**oxbow meadows website** **cardboard** **pencil/pen** **paint**
Oxbow @ Home Project Describe your project. Include the steps and directions that students and/or parents would need to follow	**My project includes multiple sections that allow the student to get a well-rounded learning experience about the anatomy of a fish and their anatomy. My project also allows the students to learn about the adaptations that certain fish have that allow them to survive in their environment**

**** Also attach a word document/movie/some sort of tangible product. Worksheets, puzzle pieces, game boards, etc… need to also be included as a word document or a printable pdf. The total amount of material uploaded to CougarVIEW and emailed to Ms. Johnson should be 5-10 pages. Please use as few attachments as possible.**

Fish Facts

Directions: Using the information from the Oxbow meadows website, use the word bank to fill in the blanks to learn more about what a fish is and how their bodies are adapted to their environment. Some words may be used more than once.

Word Bank

Vertebrate cartilage sink scales spikes breathe speed membranes swim gills bladder cartilaginous predators skeletons forcing water permanent alternately atmosphere kingdom disease

1. A **fish** is any aquatic _____ manimal that has _____ throughout life and has limbs, if any, in the form of _____.
2. **Aquatic** – though some fish can spend time out of the _____, all fish must return to the water in order to _____ and keep from drying out.
3. **Gills** – fish have _____ gills (unlike macroinvertebrates) most also have fins, _____ or skin, a slimy mucus, and a swim _____
4. **Fins** – are thin _____ usually supported by rays or sharp _____ spikes
5. **Vertebrates** – fish are one of the 5 vertebrates in the animal _____. They are however the only one that is able to live in the water without breathing air from the _____.
6. **Fins** – are thin _____ usually supported by rays or sharp boney spikes.
7. **Pectoral** – helps it to remain in one place and to dive or _____ to the surface

8. **Caudal** – helps it to move and largely determines a fishes _____ and maneuverability.
9. _____ – are found on some fish but not others like a catfish.

10. **Gill cover** – most fish breath by _____ opening its mouth to let in water, and then shutting its mouth and alternately _____ the water back over its gill openings.

11. **Swim Bladder** – some fish contain a swim _____ which allows them to suspends themselves in water and not _____ to the bottom.

12. **Mucus** – helps to protect fish from _____ , fungi, and parasites.

13. **Senses –** Fish use them to escape from _____, find their mates, know where they were born, and to locate food.

14. **Jawless fish (agnatha)** – lack jaws, paired fins, and do not have scales. Instead, they have skin. They have a _____ skeleton

15. **Cartilaginous fish (Chondrichthyes)** – have a skeletal structure made of _____.

16. **Boney fish (Osteichthyes)** – have _____ made of bone.

Follow up questions

Directions: review the information from the oxbow meadows website answer the following questions to the best of your ability.

1. How does a fish use their sense of smell in order to survive?

2. Where are a fishes taste buds located? Do they have more or less than humans?

3. What two organs help fish hear? Where is the inner ear located?

4. What are some of the other adaptions that fish have that help them survive? Do you have any of the same adaptations?

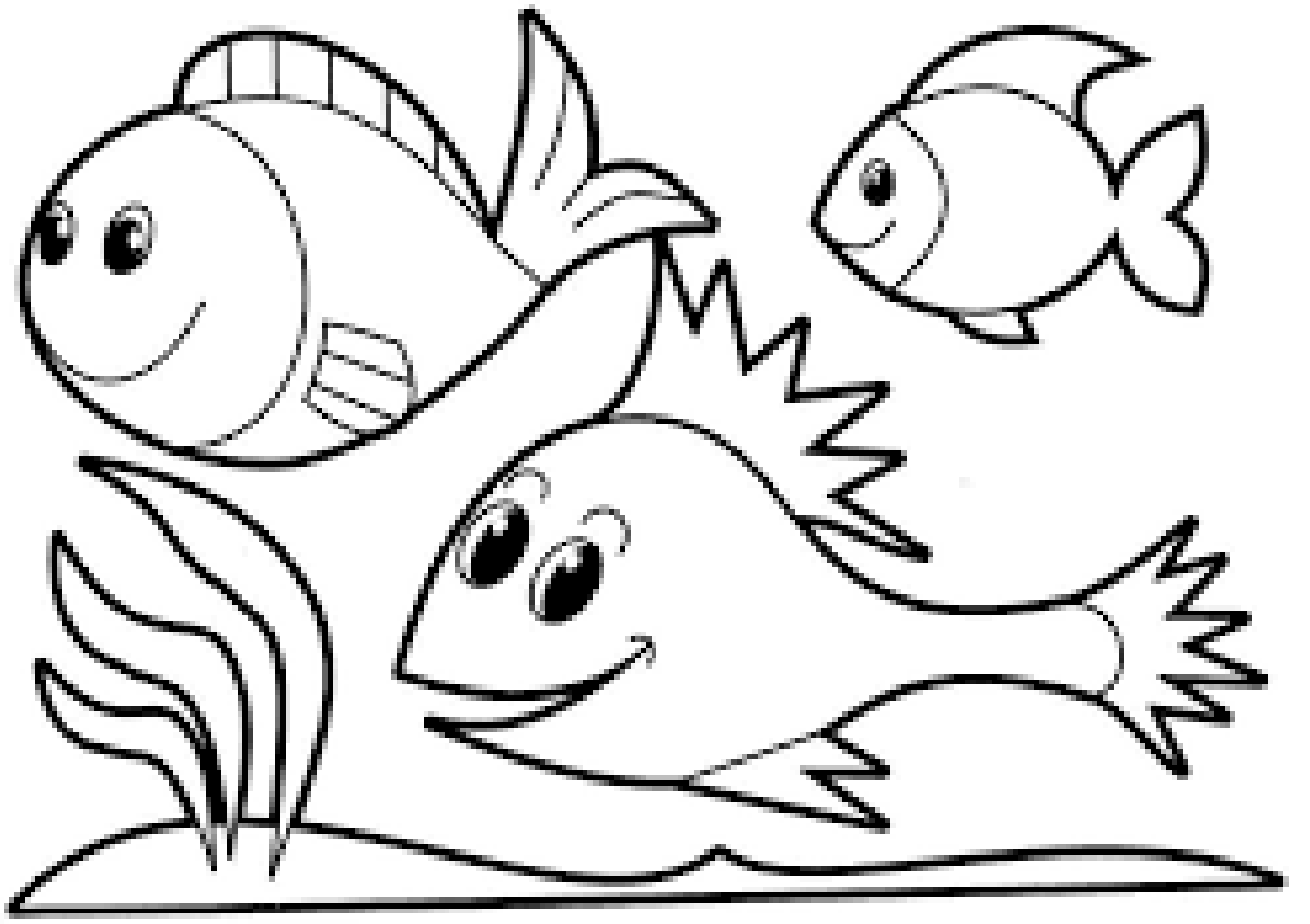
Fish Matching

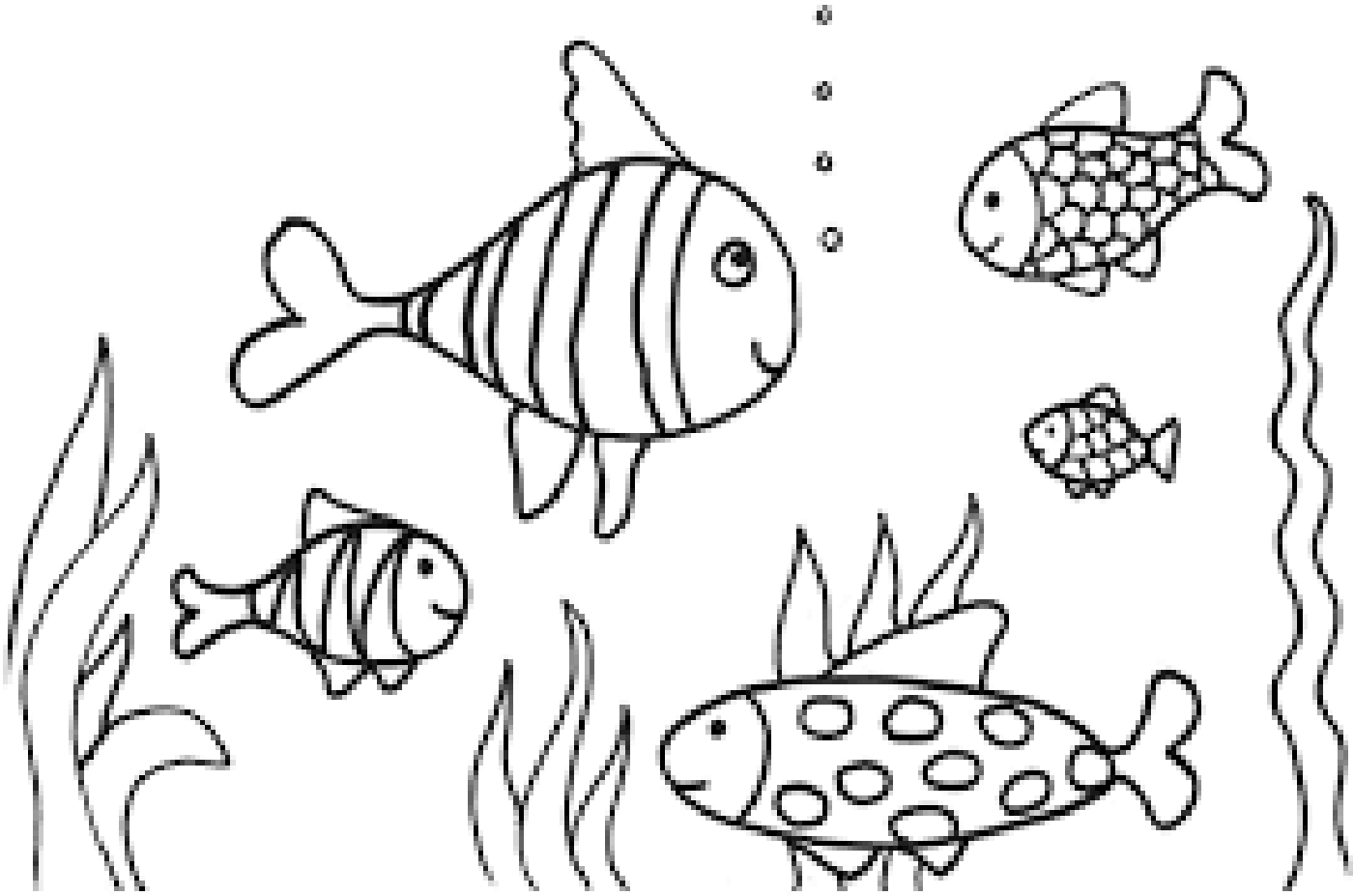
Directions: Using the fish facts located at the top of the oxbow meadows website match the fish with the correct description.

Whale Shark	Interact with other mudflats and hide in their burrows
Philippine goby	The longest-living fish who can live up to 80 years
Seahorses	Can grow up to 5ft and weigh over 100 pounds
Mudskippers	The largest fish that can weigh up to 13 tons and be
Catfish	the smallest recorded fish that is less than ⅓ an inch
Lake Sturgeon	Have no teeth or stomach and they travel in herds

Coloring time

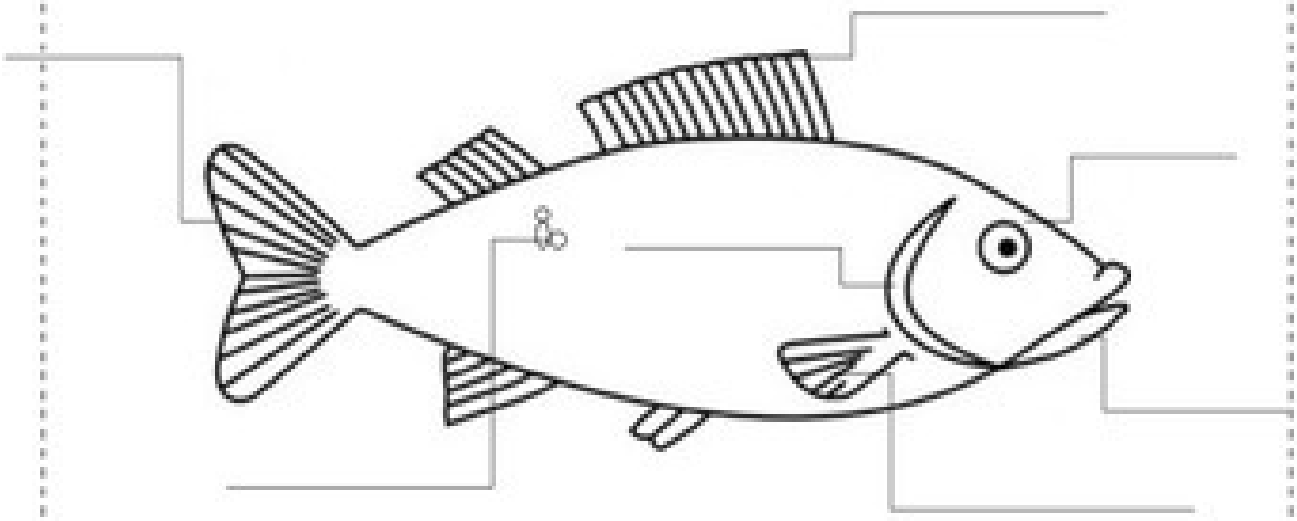
Directions: Design your own species of fish by coloring in one of the pictures. Make sure to have fun and make them unique!





Fish labeling **Directions:** Use the word bank at the bottom to label the different parts of the fish

Label Parts of the Fish



eye	mouth	pectoral fin	dorsal fin	tail	scales	gills

Writing time

Directions: In one paragraph or more explain the different adaptations that a fish has and how they allow them to survive. Make sure to include examples from the oxbow meadows website.

Time to shine

Directions: Research your favorite fish and write a 1-page essay on them. Be sure to include information such as where they live, their bodies, and why they are an important part of their environment.

Craft time

Directions: Using the materials provided design your own unique fish. Make sure to have fun!

Steps:

1. outline the shape of your fish on the cardboard. make it as unique as you want
2. Carefully cut your fish out. Ask for help if you need it
3. Use the paint and yarn available to you to give your fish some color. Don't forget to add their fins, eyes, and mouth
4. Have fun!

Examples