

The Giant Fish Project

Grades preK-2

Overview: After meeting the classroom's pet fish and learning how to care for him, students will observe their fish closely, complete a variety of activities designed to learn more about fish anatomy, read books about fish and finally make their own giant stuffed fish.

Objectives:

- Students will observe a living creature closely and record these observations.
- Students will make comparisons of similarities and differences in bony fish.
- Students will learn about fish anatomy and how fish are adapted to their environment.
- Students will observe color patterns on a variety of fish and describe these patterns.

Materials:

- Picture books about fish including some with photos (see attached list for suggestions).
- The classroom pet fish or a borrowed fish that students can observe.
- The song, "I'm a Little Betta Fish" written on chart paper.
- For each child: A piece of butcher paper, chart paper, bulletin board paper or other large paper folded in half with a large oval drawn on it to be a fish's body. Older children may draw their own bodies for their fish, but younger children tend to draw too small for this to work. For younger children, it is helpful to staple around the inside of most of the oval using a long arm stapler so that the two pieces do not come apart when the children cut them out. The children will add fins, gills, scales etc..., to this oval to make their giant fish, paint or color it, cut it out and use the scraps to "stuff" the fish.
- Several pieces of chart paper to make diagrams and take notes as a class.

Activities:

Introduction: After meeting their class fish, students will be interested in learning about him, making this an excellent time to introduce students to concepts about fish anatomy and behavior. At the science table or in a science center, the teacher will provide students with a magnifying glass, their own fish in his bowl and picture books with photos of fish and/or a tablet computer or other device with videos of a variety of bony fish. Students will also be provided with scrap paper and pencils and post-it notes. The teacher will ask the students to observe the fish to answer the question: How are all bony fish the same and how are the fish different? Children may make a sketch of their fish on a scrap paper. Children may write their observations on post it notes and place these on a chart that is divided in half with one half labeled "similarities" and one half labeled "differences". Once all children have had a chance to observe the fish, then the teacher will have students come together as a group to generate a list of how the fish were all the same and how they were different. She will then explain that all bony fish have some things in common. She will tell children that they will be learning about what fish are like in order to make a giant fish that has the same body parts as real fish do.

Gathering Information: The teacher will read aloud several books (non-fiction and fiction) about fish over a few days. Suggestions for appropriate books are listed in the “Resources” section of this plan. After reading each title, the teacher will draw students’ attention to a chart the class is making about the anatomy of fish. This chart will consist of a piece of chart paper cut in the shape of a fish’s body. The teacher will gradually add the following parts to the chart: fins (with older children the different names of fins can be specified), lateral line, gills, eyes, nostrils, skeleton and mandible. As each part is added to the chart, the class will discuss how this part of a fish is an adaptation to the fish’s environment and note this on the chart. The teacher can also teach students the song/fingerplay: *I’m a Little Beta Fish* (the names of other classroom fish can easily be substituted for “Beta”). Learning this song will give students a chance to master newly acquired vocabulary.

Project: Once students have gathered information about fish, the teacher will provide each student with a folded piece of chart paper that has an oval drawn on it. Students will add (using a dark pen or crayon) gills, fins, scales, a lateral line and nostrils to the fish. If students are going to decorate their fish with pens, they should do so before cutting. If they are going to paint the fish, they can do this after cutting and stuffing the fish. Students then cut out their fish, stuff them with the paper scraps left over from cutting and finish stapling their fish shut. Older students can be asked to make one side of their fish show the outside of a fish and the other show the inside of a fish.

Evaluation: The teacher will give students the opportunity to share their fish with the class once they are finished. She will encourage students to use the vocabulary they have learned to identify the parts of their fish. This will allow her to evaluate how much students have learned.

Extensions:

- The teacher may want to introduce students to other types of fish that are not bony fish such as sharks, or rays. Students can make a list of similarities and differences between these fish and their classroom pet fish. Students may enjoy having the option to make giant stuffed rays or sharks in addition to just bony fish.
- Students may work together to make a mural that shows the life cycle of a fish.
- Students may name their stuffed fish and write or dictate a story about their fish’s adventures.
- Students may make a shoebox diorama of a fish habitat. The teacher will provide students with an inexpensive plastic fish to use in the diorama. Students will use paint, paper scraps and other items to create habitats for their fish.
- Students may learn additional songs and fingerplays about fish (See the attached “Resources” for ideas).

Resources

I'm a Little Beta Fish

(To the tune of *I'm a Little Teapot*)

I'm a little Beta fish can't you see? (Make glasses with your fingers.)
I have a bony skeleton inside of me, (Point to your skeleton.)
I have pretty fins that help me swim (Make fins with your hands and make swimming motions.)
and a mandible jaw to let food in. (Point to your jaw and make a snapping motion.)

I'm a little Beta fish don't you know? (Make a questioning gesture.)
I hatch from an egg and then I grow. (Form an egg shape with your hands.)
I have gills on both sides so I can breathe, (Use your finger to draw lines on your side.)
and colorful scales all over me. (Move your hands from next to your head, down towards the floor.)

I'm a little Betta fish can't you tell? (Make a questioning gesture)
I have nostrils on my head to help me smell. (Touch your nostrils, then your head.)
A lateral line is on my side. (Point to your side.)
It helps me sense movement so I can hide. (Hide your head with your arms.)

--L. Koertzen

One, Two, Three, Four Five

One, two, three, four five,
I caught a little fish alive.
Six, seven, eight, nine ten,
Then I threw him back again.
Why did I let him go?
Because he bit my finger so.
Which finger did he bite?
The little one upon my right.

--A Traditional Rhyme

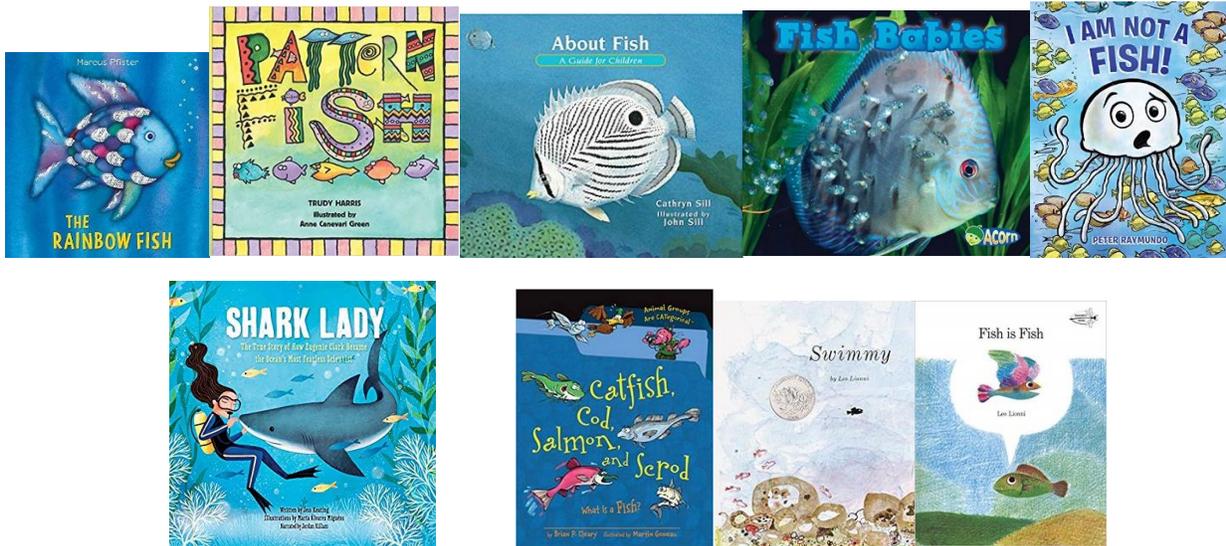
A Shark is a Pet

A shark is a pet
that you don't want to get.
There is nothing less fun than a shark.
He doesn't have fur.
He won't cuddle or purr,
and he never takes walks in the park.

Instead he just stares
and intensely prepares,
as he circles and waits in the dark,
to nibble your nose
and your fingers and toes,
for his bite is much worse than his bark.

--Kenn Nesbitt

Suggested Books



Non-Fiction:

About Fish (Cathryn Still): This book provides a simple but detailed description of fish and how they live.

Fish Babies (Acorn): This book has wonderful photos of fish and describes their life cycle.

Shark Lady (Jess Keating): This book shows students how scientists work by describing a real scientist using the scientific process to learn about sharks

Catfish, Cod, Salmon, and Serod (Brian P. Cleary): Discusses the characteristics of fish and introduces children to lots of different types of fish.

Fiction:

Swimmy (Leo Lionni): A good story for introducing a discussion about how fish defend themselves.

Fish is Fish (Leo Lionni): A lovely story with a moral about being true to oneself that can be an opening for discussing what makes a fish a fish.

The Rainbow Fish (Marcus Pfister): Another story with a good moral that can be used to discuss scales and what fish actually need scales for.

Pattern Fish (Trudy Harris): A great book for making a math connection to the concept of patterns as well as preparing students to decorate their giant stuffed fish by encouraging them to think about patterns that they see on fish.