

Geometric GloFish®

Grades Level: K-4

NATIONAL SCIENCE STANDARDS

Forms and Functions

Characteristics of Organisms

Evidence, models and explanation

INTRODUCTION:

Geometric GloFish® is a lesson that affords students an opportunity to learn about the anatomy of a fish. Additionally, it can be used to supplement a mathematics unit about recognition of shapes in real-life objects.

During this activity, students use their senses as a tool of observation to describe the properties and characteristics of a GloFish®. It allows students to look for knowledge inside themselves connecting it to their real life experiences.

Geometric GloFish® enriches students' communication skills by prompting them to share their knowledge and ideas with their classmates. Because of his hands-on nature, this activity also enhances their senses helping students to better memorize the information.

OBJECTIVES:

- 1) Students will be able to identify and name the parts of a fish
- 2) Students will be able to understand the functions of the parts of a fish
- 3) Students will be able to describe and create a real life object using shapes

MATERIALS:

- Live GloFish® / GloFish® photos (available at GloFish.com)
- Drawings of the shapes
- Parts of a GloFish® Template
- Geometric GloFish® Template
- Construction paper
- Crayons or colored pencils
- Adhesive glitter or glue and regular glitter (red, green, or yellow)
- Scissors
- Glue
- Popsicle Sticks/ Tongue Depressors

TIME ALLOTMENT: 45 minutes

LEARNING OUTCOMES:

Students will be able to describe the independent parts of a fish and their functioning using their background knowledge.

PROCEDURE:

- 1) Direct the students on a GloFish® observation directly from the fish tank, or from a set of pictures (available at GloFish.com). Tell students that the fish they are going to observe is a fluorescent zebrafish and that these type of fish can only live in fresh water.
- 2) Invite students to name the parts of the fish they know, and ask them to describe the way they look using geometric shapes (Ex. Fish eyes look like circles). You can also show the students drawings of the shapes, and ask them to find a part of the fish body that resembles that shape.
- 3) Amplify the fish parts template and use it as a poster to teach students the name and location of the most important parts of the fish.
- 4) Invite students to provide their opinion on the purpose of each of the fish body parts. If the students do not mention it, discuss with them the following information:
 - Head: Pointed to cut through the water
 - Mouth: To take in water and food
 - Gills: For breathing the oxygen distilled from the water that the fish takes in through its mouth
 - Body: Tapered toward the rear and ending in broad tail fin to propel fish forward
 - Fins Along the Fish's Body: To stop the fish from rolling from side to side and to act as brakes

4) Allow students to create their own GloFish® puppet using the Geometric Fish template. Print the template on heavy construction paper and provide a copy to each student. Ask students to first color the parts of their fish and to decorate them with adhesive glitter for the glowing effect. Then, ask the students to cut out the parts and ensemble them following the pattern. Then glue a popsicle stick or tongue depressor onto the fish to make a puppet.

DISCUSSION QUESTIONS:

- A) Why are fish heads pointed?
- B) Aside from the feeding purposes, what is another use for the fish mouth?
- C) What do fish breath through the gills?
- D) What is the tail fin for?
- E) What would it happen if fish did not have fins along the body?
- F) In your puppet, what is the shape of the fish eye? (ask the same for mouth, body, zebra stripes, tail, and fins)

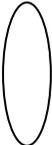
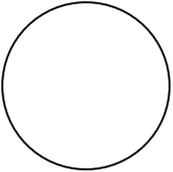
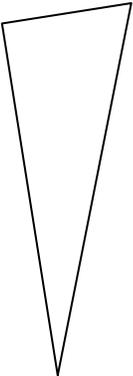
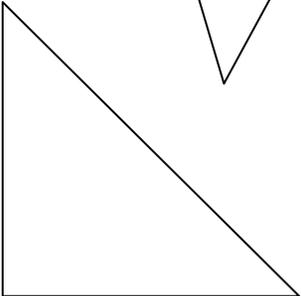
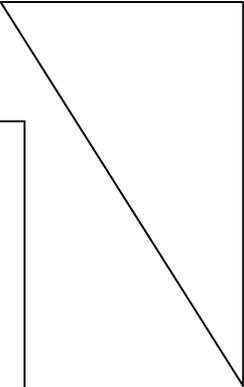
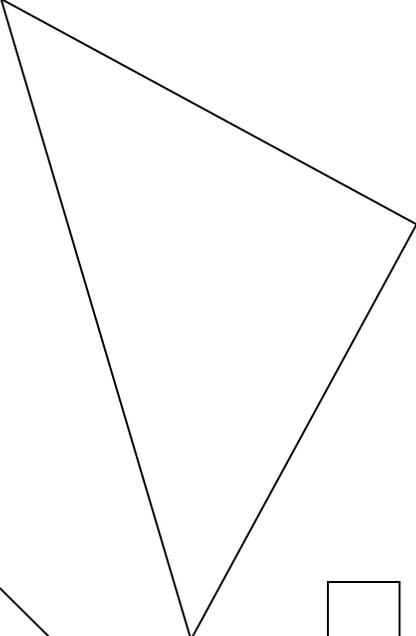
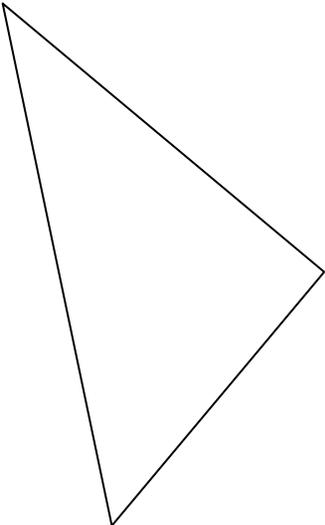
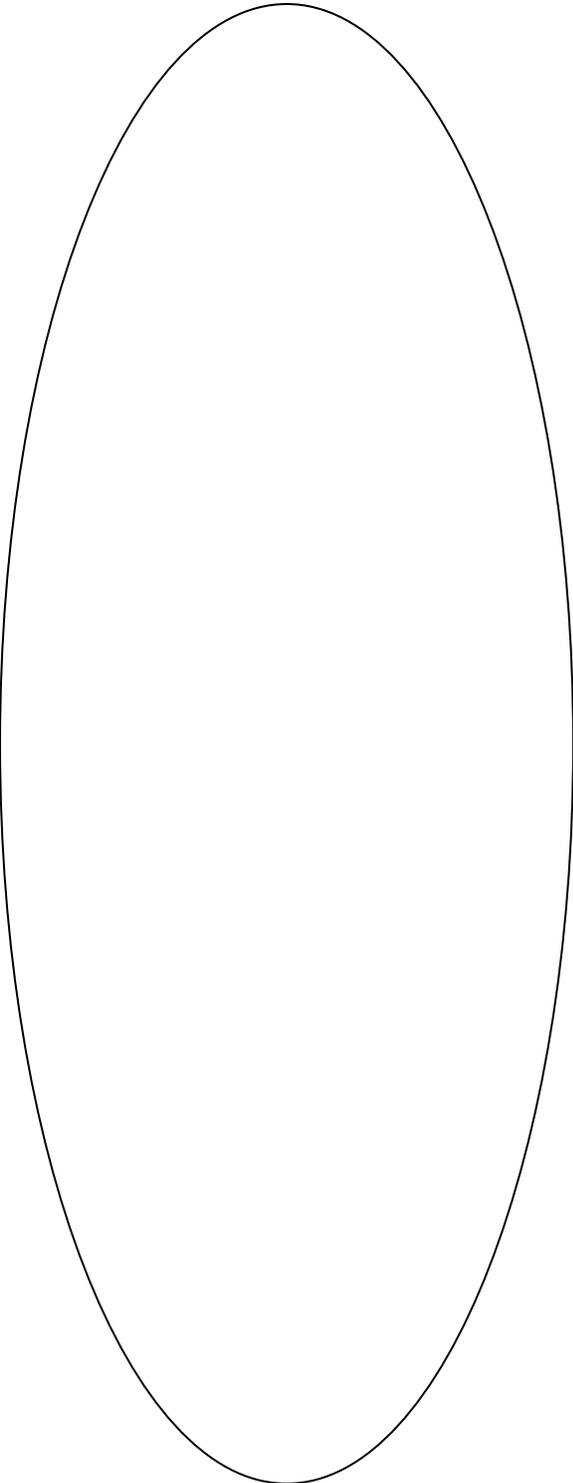
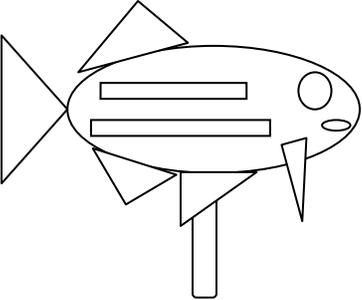
CONCLUSION:

Collective participation and hands-on activities provide students with the means to better acquire knowledge. Through this activity, the students were able to share ideas orally and demonstrate knowledge artistically.

OUTCOME/ASSESSMENT:

Observe students as they work on their puppets. Look for the use of the vocabulary taught during the lesson (body parts and shapes). Ask each student independently to bring their puppet to your desk and tell you three parts of a fish body and their function

GloFish® Pattern



Parts of a GloFish®

