

GloFish®...The Aquarium of Colors! Exploring Primary and Secondary Colors

Objective

The learner will relate GloFish® fluorescent fish to primary or secondary colors.
The learner will mix primary colors to create secondary colors similar to GloFish colors.
The learner will make a model of a GloFish.
The learner will count and compare GloFish.
The learner will make scientific observations.

Introduction

Aquarium of Colors! is a lesson that gives younger students the opportunity to observe the characteristics and colors of GloFish in their classroom habitat. Students will apply their knowledge of observable characteristics, with hands-on integrated activities.

National Standards Addressed

Science As Inquiry A--Abilities necessary to do scientific inquiry
Life Science C--Characteristics of organisms

Materials Per Group

Starfire Red®, Electric Green® and Sunburst Orange® GloFish®
Modeling dough in the colors red, white, blue, yellow (Neon colors work well)
Fish-shaped cookie cutters or ovals and triangles
String or yarn
Color Wheel

Materials For Classroom

Aquarium of Starfire Red, Electric Green, and Sunburst Orange GloFish
Book Fish by Robert Noyed & Cynthia Klingel or book of your choice about fish

Safety Precautions

Make sure aquarium can easily be seen by all students or you will need to let students go in pairs to observe and compare fish.

Procedures

1. Read the book Fish by Robert Noyed & Cynthia Klingel. Discuss fish and observable fish colors in the book.
2. Direct students to your classroom GloFish aquarium and have students discuss GloFish and their colors. Briefly explain how GloFish were produced through scientific procedures. Compare and contrast fish in the book to GloFish.
3. Divide students into three groups. Each group will be given a GloFish color to try to reproduce (1. Starfire Red, 2. Electric Green, and 3. Sunburst Orange). After

looking at a color wheel, have groups decide what colors would be needed to create their GloFish®'s color.

4. Hand out containers of play dough; mixing clay is very tactile and involves all students. Guide students in adding small amounts of yellow/white into the red (for orange), yellow into the blue (for green) and yellow into the red (for fire red).
5. When play dough has been mixed to replicate each groups color, give each group a fish cookie cutter (if not available use ovals for bodies and triangles for tails). Each student makes GloFish out of play dough with a hole for stringing later. Discuss and compare the colors of the clay GloFish to the real GloFish. Let fish dry.
6. Have students complete their GloFish observation sheet.

Elaborations or Extensions

After drying, string clay GloFish. Have each student wear their GloFish. Engage students in simple math stories or science scenarios as they pretend to be GloFish.

Examples:

1. Five green GloFish swim in the pond two red GloFish joined them. How many GloFish are in the pond? ($5+2=7$)
2. Four little red GloFish swim up-stream, two little GloFish started feeling sick and swim home. How many GloFish are left? ($4-2=2$)
3. What could be in the water that would make GloFish sick? (Pollutant answers will vary.)

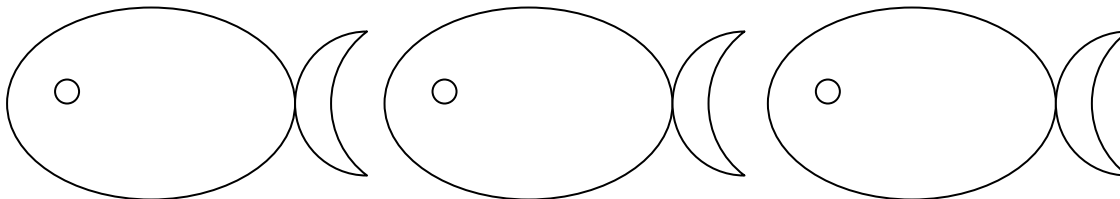
Discussion Questions:

1. What colors are GloFish?
2. What two colors mixed together will make a green GloFish?
3. What two colors mixed together will make an orange GloFish?
4. What colors did we mix to get red GloFish?
5. Looking at your tally sheet, which color GloFish do you have the most of in your aquarium?
6. Which color of GloFish do we have the fewest of in our aquarium?
7. Which GloFish is your favorite color?
8. Why are GloFish so colorful?

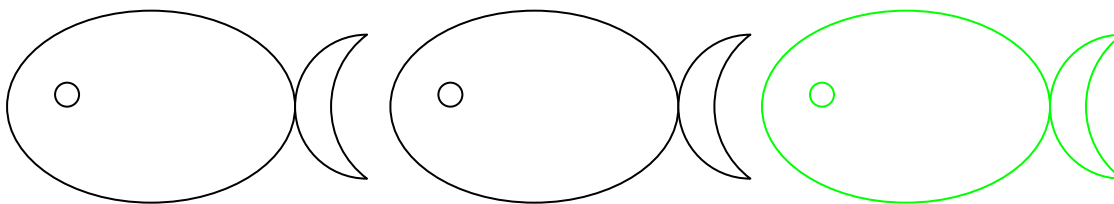
GloFish® Observation Sheet

Directions: Observe and Color the fish to answer the GloFish questions!

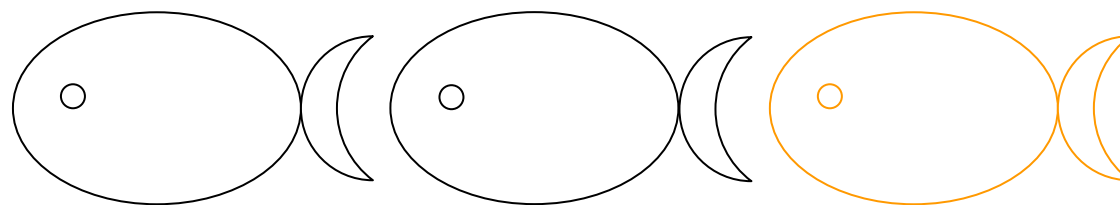
1. What colors are GloFish?



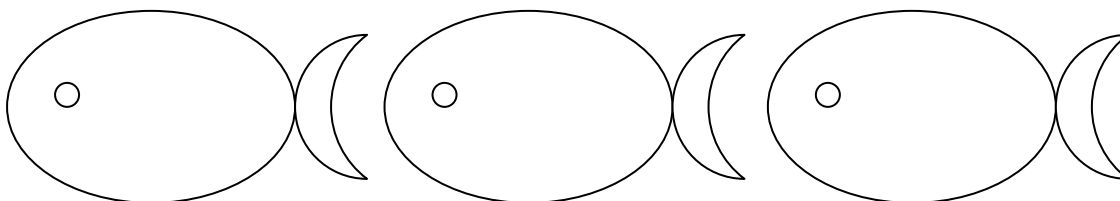
2. What two colors mixed together will make green GloFish?



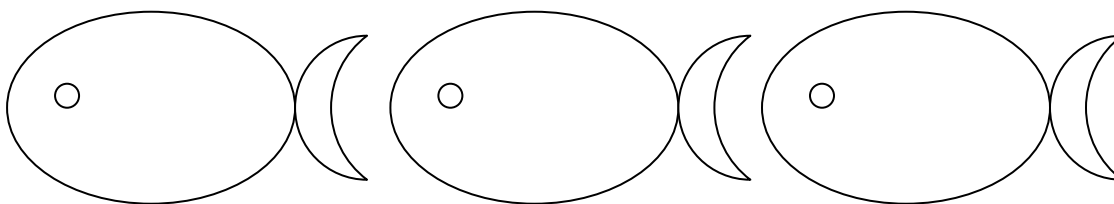
3. What two colors mixed together will make orange GloFish?



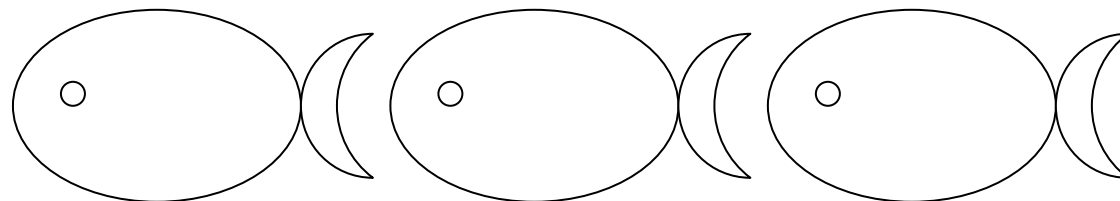
4. What color GloFish do you have the most of in your tank?



5. Which color of GloFish do we have the fewest of in your aquarium?



6. What is your favorite color of GloFish?



Lesson plan for GloFish® fluorescent fish; Starfire Red®, Sunburst Orange®, and Electric Green®. For additional **FREE** lesson plans, please visit the **GloFish.com** Classroom page at <http://www.glofish.com/classroom.asp>.

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Answer Sheet

Intended Grade Level

K, 1st

Discussion Questions and Answers

1. What colors are GloFish? *Red, green, orange*
2. What two colors mixed together will make a green GloFish? *Blue & yellow*
3. What two colors mixed together will make an orange GloFish? *Red & yellow*
4. What colors did we mix to get red GloFish? *None since red is a primary color.*
5. Looking at your tally sheet, which color GloFish do you have the most of in your aquarium? *Answer will be based on the actual count in your classroom aquarium.*
6. Which color of GloFish do we have the fewest of in our aquarium? *Answer will be based on the actual count in your classroom aquarium.*
7. Which GloFish is your favorite color? *Students will have a variety of favorites.*
8. Why are GloFish so colorful? *Because scientists added the fluorescent color to them to help detect water pollution (more information about this at <http://www.glofish.com/faq.asp>).*