

Coral Reef Color Match

Learning Level

- Gr PK-1

Skills

- Observation
- Communication

Materials

- Color Wheel Sheet
- Coral Reef Webcam
- Device with internet capability

Science and Engineering Practices

- Use counting and numbers to describe patterns in the natural world.
- Use information from observation to construct an evidence-based account of nature.
- Distinguish between opinions and evidence in one's own explanations.
- Listen actively to others to indicate agreement or disagreement based on evidence.

Objective

Learners will practice their color identification and science observation skills using a coral reef exhibit.

Background Information

Coral reefs are generally found in clear, warm waters. They are typically found close to the surface, as they need sunlight to survive. While coral reefs make up about 1% of the ocean floor, they house nearly 25% of life in the ocean. Animals use reefs as a stopping point or live as full-time residents. Many of the residents, and visitors of the reef interact with each other. Some animals hunt for food among the other residents, while some, like the sea anemone and clownfish, rely on each other for survival. Coral reefs are some of our most diverse habitats and full of colorful organisms to observe!

Procedure

1. Prepare a screen, the larger the better, and device with internet access. Select a coral reef webcam to use for the activity (see Recommended Resources)
2. Tell your learner(s) they will be investigating color in the coral reef habitat. Discuss what a coral reef habitat is before starting your webcam video.
3. Hand learner(s) a Color Wheel worksheet. Start the webcam and have learner(s) watch for 10 to 15 minutes tallying the colors as they see them. Have them think about why organisms are the color they are. (They do not have to be correct answers, just encourage them to give evidence to their claims.)
4. Once you have completed your observations, make a bar graph of the colors you observed and analyze the results.

Discussion Questions

- What color did you see the most often in the exhibit? Why do you think most of the organisms were that color?
- What color did you see the least often in the exhibit? Why do you think not many of the organisms were that color?
- Was there an organism you remember really well? What color was it? Why was it one you remember?
- Was it difficult to focus on observing for that long? What did you do to help you observe the exhibit?

Recommended Resources

- Virtual Visit: Inside the Giant Ocean Tank! (New England Aquarium): https://www.youtube.com/watch?time_continue=6&v=W2cmZ0htpiM (Note: This is a 51 minute video. Select a section to show with learner(s))
- Indo-Pacific Coral Reef Exhibit Video (New England Aquarium):

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- https://www.youtube.com/watch?time_continue=7&v=2oq79441l8s (Note: This is 45 second video but is a good pair with other webcams)

Adaptations & Extensions

- Watch different reef tanks, such as the Indo-Pacific and Giant Ocean Tank. See if there are difference in the two, given they are in different locations in our world. The Giant Ocean Tank represents an Atlantic reef, whereas the Indo-Pacific reef exhibit represents a reef in the Indo-Pacific.
- Repeat this using your window as the “webcam”. What goes on outside your own home? What kinds of colors can you document and graph locally?
- Try different webcams, such as the National Aquarium’s Blacktip Reef (<https://www.aqua.org/Experience/live>) or Explore.org for any number of fun webcams (<https://explore.org/livecams>) Note: When using LIVE webcams, there are times when nothing is taking place. Have a backup plan, or select a webcam that says “Highlights” so there will be organisms present.
- Introduce the concept of Camouflage – blending in your environment to hide from predators. How does that change how your learners think about colors in a coral reef? How does that change how your learners think about colors outside the window?
- Start a scavenger hunt, where your learner must find something inside [toys, balls, books, etc] to make a full color wheel.
- Take samples of color [colored paper or paint samples] and walk around your outside or inside spaces and try to find things that are that color.

Pick the best camouflaged animal in the webcam or outside and share what makes it the best and/or show us the colorful items you found with the New England Aquarium on Facebook, Instagram or Twitter @NEAq