Day 5: Diving in at 92!

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Interactive Story Ideas!

Background scene:
Play this video in the background on a big screen, smart board, or laptop.
Our Planet | Animals Of Ocean 4K: Shark (4K ULTRA HD) - Scenic Relaxation Film With Calming Music: https://www.youtube.com/watch?v=OVllGjgh9R0

Storytelling Role-Play: 1-5 sand dollars each
(2 Students to help cut out props and 6 students to role play)
Ask for 3 girl volunteers and 3 boy volunteers to portray Genie, the Nat Geo photographer, the whale, the plankton and 2 co-workers at the Gulf of Aqaba.

New word: 1-5 sand dollars
Read the word and definition. Have students listen for it in the story. Have them raise their hand when they hear the new word.

Effortlessly: To do something effortlessly means you can do it easily and without any problems. Genie could still dive effortlessly at 92 because she did it all her life and stayed active and dedicated to her work. You might effortlessly, or easily, read a book or ride a bike. It is okay for something to not be effortless at first. It can become effortless and simpler as you keep trying!

Genie's lab grows and grows. Now you can go see it too! It's called the Mote Marine Laboratory and Aquarium and it is still in Florida. People do important research there.

Genie writes articles for National Geographic. She also makes TV specials for them. The photographer from Nat Geo who goes with her on her dives says he watched Genie ride on the back of a 50 foot whale shark! He takes her picture. He says he was scared he would never see her again! (Camera and shark fin prompt, be worried as Genie rides away).

She leads over 200 research expeditions, writes 175 scientific articles and makes 72 submersible dives! (Keyboard and paper prompt, type and hold it up!)

Day 5 Eugenie Clark: Diving in at 92!

One of her important papers is about whale sharks nibbling on plankton (Whale shark and plankton prompts, swim slowly and try to catch). It is 2014 and Eugenie, age 92, is diving in the Red Sea. Her co-workers help her get her diving gear and move towards the edge of the boat.

She **effortlessly** dives into the water and feels young and free. She loves it.

Even though she has studied the ocean all her life, there was always something new to discover.

Eugenie continued her research until she passed away in 2015, but her dreams live on.

She inspired female scientists and showed the world we still have a lot to learn about the ocean and its creatures.

Questions/Reading discussion: 1-5 sand dollars

Ask: What did Genie write? What do you think she wrote about?

Example: She wrote articles for National Geographic magazine. I think she wrote about sharks and her underwater adventures.

Ask: What did you learn from Eugenie Clark?

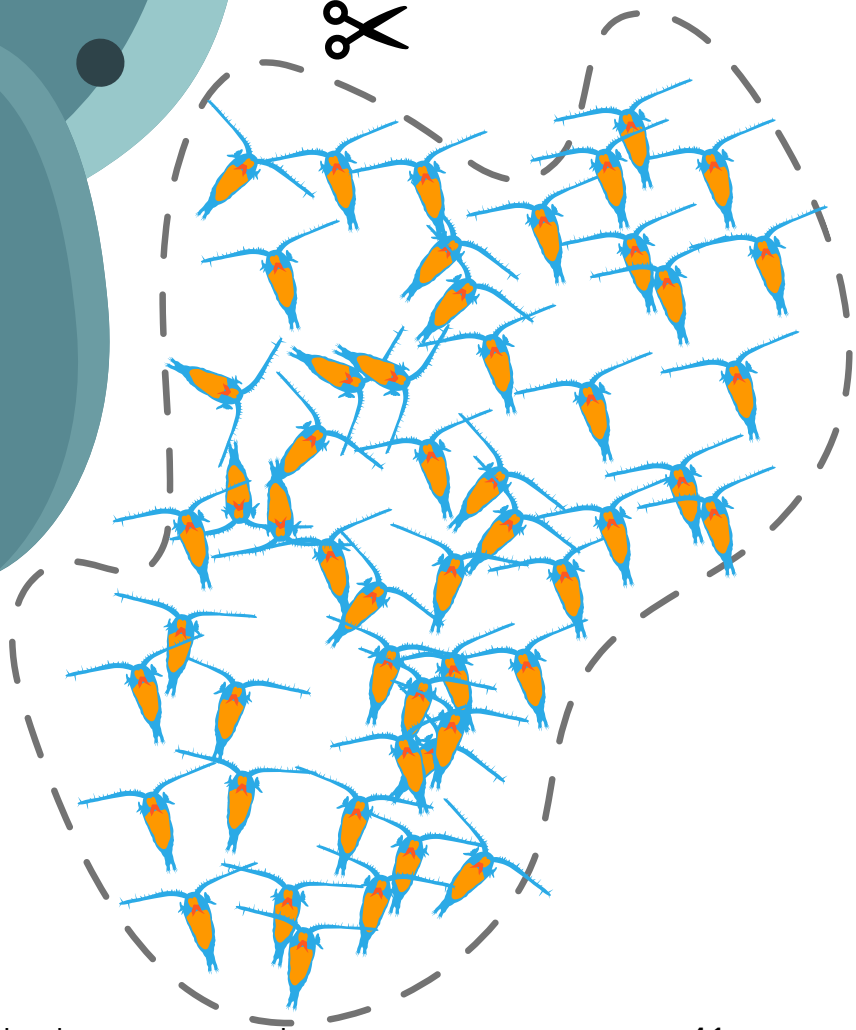
Example: Answers will vary.

Ask: How do you think Yumico would have felt seeing what Eugenie did?

Example: She would have been so proud of her little chibi showing people that sharks are not monsters.

Cut out this whale shark for a student to be. Whale sharks move slowly so swim slowly and try and eat the plankton.

Cut out this plankton bloom for a student to be. You are the food the whale shark is trying to eat.

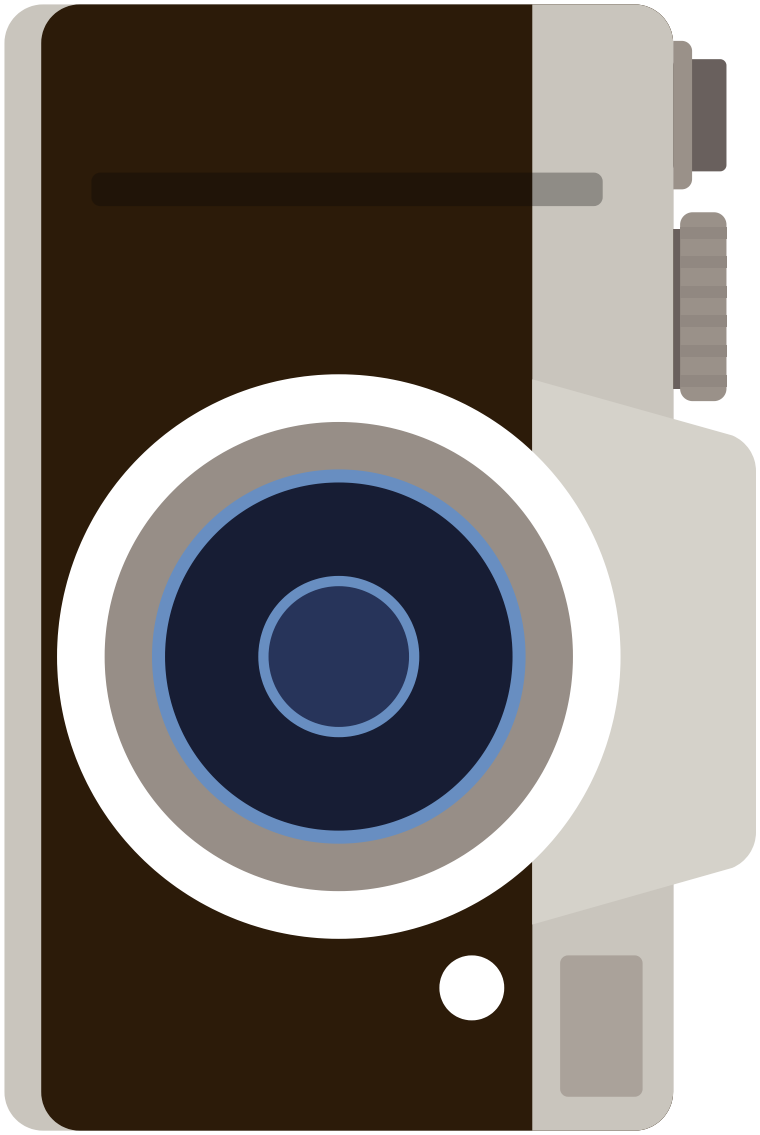


Whale shark: Swim slowly and try to catch the plankton bloom.

Plankton bloom: Try to avoid the whale shark and not be eaten!

Cut out this keyboard for Genie to type her papers.

Cut out this camera for the Nat Geo photographer.



Day 3: Eugenie Clark story student props.

NatGeo photographer: Follow Eugenie's wild adventures. Make click sounds to show you're taking lots of pictures.

Genie: Type at your desk and hum shark songs as you work.

Have a student pretend to be Eugenie typing out this research paper and hold it up.

Young whale sharks, *Rhincodon typus*, feeding on a copepod bloom near La Paz, Mexico

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Synopsis

Seven small (3.2 to 5.2 m total length) whale sharks were observed suction feeding on patches of surface plankton in the Bay of La Paz within 1 km of shore and 2 km N of the phosphate dock at San Juan de la Costa, on 1–2 November 1993. The sharks were photographed and videotaped from the boat and by snorkelers in the water. When actively feeding the shark turned its head from side to side, part of the head was lifted out of the water, and the mouth opened and closed 7 to 28 times per minute ($\bar{x} = 17$, $N = 13$). These suction gulps were synchronized with the opening and closing of the gill slits. This feeding behavior occurred only in the patchy areas of densely cloudy water, a layer 10 to 30 cm thick at the surface containing an immense concentration of copepods, 95% of which were identified as *Acartia clausi*. Remoras accompanying the whale sharks also fed on the plankton bloom.

Introduction

The circumtropical whale shark, *Rhincodon typus*, the largest fish in the sea, has attracted attention since the late 1800s due to dramatic close encounters and sightings by boatmen and divers. Diver encounters were relatively rare until recently. The discovery of ways to predict within a few days the appearance of whale sharks in large numbers (e.g., over 100 sightings in one week) at Ningaloo Reef, Western Australia, has created a tourist problem (Clark 1992, Taylor 1994). Increased boat operations in Ningaloo National Park have led to proposed legislation to protect whale sharks from being disturbed by divers. However, beyond legislation, there is a recent movement among conservation-minded divers to refrain from riding, chasing, or in any way harassing large marine animals (Strickland 1994, Leonhardt 1994). A food chain that seems to begin with the once a year massive coral spawning on Ningaloo Reef, March–April, results in large plankton blooms of euphausiid crustaceans and schools of anchovies that attract many larger predators (jacks, small sharks), the largest of planktivores (the baleen whales, mantas, whale sharks), and finally hordes of tourist divers. An increase in whale shark sightings in the summer, especially August and September, was also seen by aerial surveys in the 'East Flower Garden Bank' in the northern Gulf of Mexico off Texas (C. Rogers & K.D. Mullin personal communication) and may be related to massive coral spawning in August (Gittings et al. 1992).

In other regions of the tropical and semitropical


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