

STEM Taught Camp I'm a Scientist

Eugenie Clark: Day 3

Grades: TK-3

WELCOME

(5 min)



Introduction: Welcome your students to camp. Be friendly. Say, "Today we get to go on a seashell hunt, and explore the ocean in our robot submarines."

Remind students they have the opportunity to earn sand dollars when they complete a task, help another student, help set up or clean up, write in their journal, read a book, etc. Tally the amount of sand dollars that each student earned from helping and record it on the weekly payroll sheet.

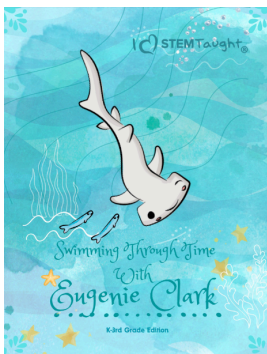
STEM READERS THEATER

(30 min)

- Act out story: 15 min
- Discuss story: 5 min
- Activity: 30 min

Materials:

- Print one copy of "Day 3: Setting Up a Lab"
- Three pairs of scissors
- One roll of tape



Eugenie Clark story.

READ SWIMMING THROUGH TIME WITH EUGENIE CLARK, DAY 3: SETTING UP A LAB

Prepare beforehand: Print out one copy of "Day 3: Setting Up a Lab" from the story. Print one coloring page for each student from the "Student Sheets" section. Gather scissors and tape.

What you'll do:

- 1. Setup storytelling props (10 min):** Call up volunteers to help with the readers theater. Ask students to cut out the story props found in the story document. Remember to tape the headband ends together to fit a child's head. Students that are not helping with the story setup can color their coloring pages while they wait.
- 2.** Gather all students and have them sit to listen to the reader's theater. Ask students to leave their coloring pages behind.
- 3.** Assign a volunteer actor to handle each prop for story time.
- 4.** Read the story to your students. Guide your volunteer prop holders in following the acting instructions as you read.
- 5.** Discuss the story with your students following the discussion prompts printed underneath the story text.

STEM TIME

(30 min)

Materials:

- List of words
- Timer

Word suggestions:

Putting on sunscreen and laying on the beach, building a sand castle, octopus, shark, surfing, playing frisbee, picking up seashells, seal, fish, setting up an umbrella, laying out towels.

ART

(60 min)

Materials:

- Large pasta shells or real shells
- Paint
- Air dry clay, play dough, or clay
- Tooth picks



OCEAN CHARADES

1. There will be two teams: Boys vs Girls. The teams will take turns.
2. One person from the girls' team goes in front of the group. The leader whispers something from the list for them to act out. Her team has 30 seconds to guess what she is doing.
3. If they guess right they get a point. If they don't get the point, the boys have 1 guess to get the point.
4. Now, the boys send someone up and he acts out what he is told. His team has 30 seconds to guess the correct answer, or the girls can have 1 guess to get it right and score the point.
5. Play continues till one team has 10 points.



PASTA SHELL SEA SNAILS

Set up:

Have plenty of shells available, especially if you are using pasta shells. They can break easily. Line the table with paper or have a paper plate for each student to work on. Have different sized medium and small paint brushes for painting designs on the shells. Teach the kids to add perfect dots by using the handle of the paintbrush. Sea snails come in all colors, let the kids get creative. If time permits, let them make several!

Instructions:

Say: "Every shell was a home for a mollusk at one time! A mollusk is a soft-bodied animal. You know what a snail in the garden looks like. Their bodies are soft and squishy and they have shells. They need protection from the sun because they can get dehydrated and dry out. They also need protection from the other animals that want to eat them. Mollusks in the ocean need protection, too!"

1. Paint the shells.
2. Form a mollusk body with the clay.
3. When the shell is dry, carefully push the body into it.
4. Add cute eyes and mouth with tooth picks. Add the antennae by breaking toothpicks to the desired length and sticking them into the clay.
5. Name your cute new pet!

Alternately, kids can create their own underwater creations to put on the class collaborative mural.

STEM LAB

(60 min)

Materials:

- Lab sheets
- Paper or pasta sea shells



STEM TIME

(60 min)

Materials:

- Robots
- Remote controls
- Magnets
- Paper clips
- Building bricks
- Why Bricks
- Trays
- Ocean animal pictures



SEASHELL HUNT

Instructions:

The older students will be making and hiding seashells for the younger students to have a seashell hunt. Make sure there are enough shells for each student to find multiple seashells.

1. Take the younger students outside to go on a seashell hunt.
2. Let the students know how many shells they each can find.
3. Remind them to stay within the designated area.
4. After all of the shells have been collected, come back into the classroom and have the kids sort, tally, and graph the shells.

BUILD A SUBMARINE

Students get to design and build their own remotely operated vehicle, similar to ones that dive into the deep oceans to collect marine samples.

New Word: "ROV" is short for remotely operated vehicle; ROVs are robots that do not carry people. They can be driven to explore ocean depths and collect samples while being operated by someone at the water surface. This is a much safer way to explore the deep ocean trenches than sending people down in a submersible.

Set up:

Pictures of animals need to be cut out and have magnets stuck to their backs. Designate an area on flat ground for the ocean and place the pictures of the animals, magnet side up, randomly on the floor (hard surfaces work best).

Instructions:

1. Students partner up and will get 1 robot, 1 remote and 1 tray of Legos/Why Bricks and a few paper clips.
2. The barcodes and instructions for coding the robots are all printed on the robot mat. Refer to the mat for instructions.
3. Students will get to build a sample collection device that can pick up the magnetic cards. Students can use as many Legos and/or Why Bricks and paper clips as needed on their deep sea rovers (robots).
4. Once their robot has been built, have them go into the ocean and collect samples.
5. When groups have a number of sample cards let them count and graph what they collected!

**If you are doing the lab outdoors you must be in the shade or else the remotes will not work with the robots. The surface must be flat and it is best to use the mats to create a smooth surface on the concrete (mats represent the ocean).