

- STEM Taught Camp - I'm a Scientist

Eugenie Clark: Day 3

Grades: 4-8

WELCOME

(5 min)



Introduction: Welcome your students to camp. Be friendly.

Say, "Today we learn about sea shells, and investigate water samples with Meeka microscope to find the amazing plants and animals that live in the water around us."

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

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:

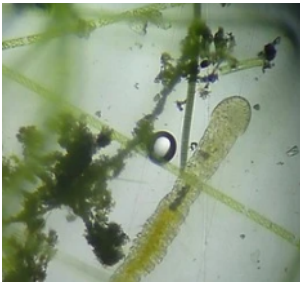
- 1. Setup storytelling props (10 min):** Call up volunteers to help with the readers theater. Ask students to cut out the story props found in the story document. Remember to tape the headband ends together to fit a child's head. Students that are not helping with the story setup can color their coloring 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 LAB

(30 min)

Materials:

- Water sample
- Microscopes
- Identification Guide
- Pipettes
- Petri dishes



EXPLORE WATER SAMPLES

Collect a jar of water from a nearby pond and bring it in for the students to use for the day. Water found near algae and plants is best. It will have the most microorganisms. If help is needed with this, e-mail STEMTaught a few days before and we can help you.

1. Have the students get a microscope and bring it to their desk.
2. Set out the water sample and lab supplies on a table. Either have the Identification Guide up on a smart board or have printed copies available for the students to refer to.
3. Have the students use a pipette to squirt some of the water into a petri dish and take their water samples back to their desks.
4. Let them observe under the microscope. Be sure to instruct the students to use the bottom light to see the organisms. Ask students to make open-ended observations about the kinds of things they see in the water. Is there anything wriggling? Let them move around the room and observe other students' samples. There will be a wide variety of things you can see.
5. Pass out the lab sheet for students to use as a reference. Have students draw and write freely about their water samples. If any of the students saw microorganisms, talk to them about it.
6. Have the students return the water samples to the jar at the end of the lab, and rinse out their lab tools.

ART

(60 min)

Materials:

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



STEM LAB

(60 min)

Materials:

- Coloring pages
- Pasta shells
- Scissors
- Coloring utensils
- Sharpies



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 eyes and mouth with tooth picks. Add antennae by breaking toothpicks to the desired length and sticking them in the clay.
5. Name your cute new pet!

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

SEASHELL HUNT

Instructions:

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

1. Each student will need to make 10 seashells. They can color a coloring page and cut them out, or color pasta shells with colorful permanent markers.
2. Go outside as a class and hide the seashells in a preselected area for the younger students to find.



STEM GAMES

(60 min)

Materials:

- Board games
- Legos
- Blocks
- Coloring supplies
- Books
- Stacking cups



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, and laying out towels.

GAMES/KIDS CHOICE

Allow students time to connect with each other through a fun game or let them choose to read. If the students have not had time to draw/write in their journal, have them take some time to do so now.

Kids' Choice Instructions:

Choose between options that the teachers have set out: Board games, building with Legos, blocks or other things, reading, coloring/drawing (include ocean related coloring pages), cup stacking.

Triangle tag- Protect the Mollusk Instructions:

1. Divide the players into groups of four.
2. Three of the four players join hands and form a triangle.
3. Designate one of the players to be the first target.
4. The fourth person will try to tag the target by running around their triangle group.
5. The triangle group has to stay in the same area, but can move to the left or right to protect the target from being tagged.
6. The tagger must remain outside the circle. He cannot reach through. He can move left, right, or run around the group attempting to tag the target. If he succeeds, that person becomes the new tagger.

Ocean Charades Instructions:

1. There will be two teams: Boys vs Girls, and 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.