

- STEM Taught Camp - I'm a Scientist

Eugenie Clark: Day 4

Grades: 4-8

WELCOME

(5 min)



Introduction: Welcome your students to camp. Be friendly.

Say: "Today we get to play fun games, explore the ocean and make a fun fish craft!"

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)

Materials:

- Print one copy of "Day 4: Research Expeditions"
- Three pairs of scissors
- One roll of tape

READ SWIMMING THROUGH TIME WITH EUGENIE CLARK, DAY 4: RESEARCH EXPEDITIONS

Prepare beforehand: Print out one copy of "Day 4: Research Expeditions" from the story. Print one coloring page for each student from the "Student Sheets" section. Gather scissors and tape.

What you'll do:

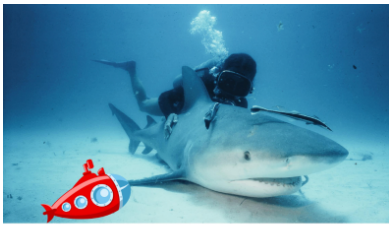
1. **Setup storytelling props (10 min):** Call up volunteers to help with the readers theater. Ask students to cut out the story props found in the story document. Remember to tape the headband ends together to fit a child's head. Students that are not helping with the story setup can color their coloring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



Day 4: Research Expeditions



STEM TIME

(60 min)

- Natural materials collected outside.

Some possibilities:
A rock stack, a rainbow made out of leaves, sticks & rocks, people out of leaves and sticks, a house with rooms from sticks laid on the ground, a nest etc.

PATTERNS IN NATURE

Say: A pattern is a repeated or predictable sequence or arrangement. Our natural world is full of patterns. Let's go outside and collect things to make some patterns of our own!

Take the students outside, and challenge them to create something cool out of the things they find. They can work solo or with their friends. Let them use their imaginations! Show them the examples below to get them thinking.



ART

(60 min)

Materials:

- Paper templates
- Scissors
- Coloring utensils

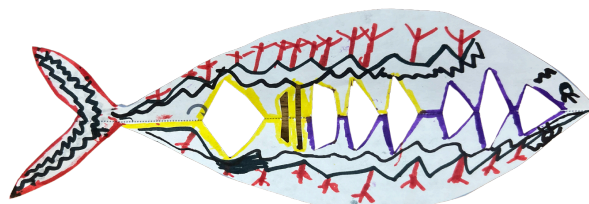


PAPER FISH

Instructions:

Say: "Today we get to make paper fish to create a school of fish that we will display in the window! A school of fish is a group of fish that swim together. Swimming in a school helps fish stay safe, find food, make friends, and learn new things!"

1. Instruct the students to color, then cut out the designs on the fish (it will be better to color the fish before cutting them so the fish are stronger and don't tear).
2. Fold the fish in half and cut the designs along the lines.
3. Create a school of fish by taping the fish in a window.



STEM GAMES

(60 min)

Materials:

- Buckets of water
- Cups
- Hose or spigot for water

Materials:

- List of words
- Timer

Categories to get you thinking: sports, dog breeds, candy, things that fly, vegetables, fast food restaurants

GAMES

High Tide, Low Tide Water Play Instructions:

1. Set up tubs of water by the rows of tide kids, so they can quickly fill up their cups. Divide the kids into 2 groups. Half the kids will be the tide. They will each get a cup and stand in 2 rows. The rows should be about 10 feet away from each other. Kids should face each other (adjust the number of kids in each group, if necessary).
2. The other team will be kids at the beach, they are the runners. They should line up about 10 feet from the start of the tide-tunnel.
3. All the tide kids scoop water in their cups.
4. The first kid in line calls out "high tide" or "low tide", then runs through the tunnel. If he says "low tide", all the kids toss water low on his legs. If he says "high tide", they toss water towards his arms or high in the sky to come down on his head. No throwing water in the face!
5. After he is through the tunnel, the tide kids hurry and scoop more water into their cup and get back in position. The next kid calls out "high tide" or "low tide" and runs through. Play continues.
6. After all the kids have run through a couple times, the groups will change position so the tide kids now become the runners and go through the tide-tunnel.

Word Association Challenge Instructions:

- Objective: kids are all given the same topic. Each team will come up with words associated with the theme.
1. Divide kids into teams with about 6-8 kids per team.
 2. Each team will have 1 pencil, paper, and a clipboard or something to write on. A leader or older child will be the writer for the team. Send the teams to different areas of the room.
 3. Name a category, like sea animals. Start a timer for 90 seconds. Kids will start naming all the things they can think of in that category. The writer will quickly write them down. Remind kids not to yell, they need to talk quietly so the other teams don't hear their answers.
 4. Stop when the timer goes off. Each team will count their answers then read their answers to the class. The team with the highest score wins that round.
 5. Choose another category and start over. Play as many rounds as you want. If the category is the beach, answers could include water, sand, sunscreen, swimsuit, sand crabs, surfing, etc.
 6. Time can be adjusted if needed.

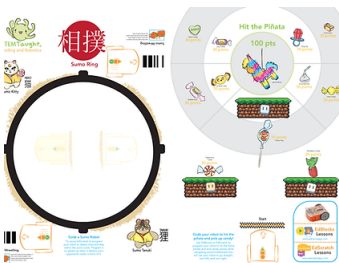
ROBOTICS

(60 min)

Materials:

- Robots
- Legos
- 8-10 Robot Mats
- Bamboo trays or plates

Refer to the Robotics Cart for detailed instructions.



SUMO WRESTLING ROBOTS *OPTIONAL

When Genie would go down in the submarine she would watch all the strange creatures of the deep. Today you get to build a deep sea creature on your robot and then battle another students deep sea creature creation and see who wins.

Set up:

1. Lay out 8-10 Robot mats in an open area. We suggest a multipurpose room. There can be 2-3 students per mat.
2. Fill 2-3 bamboo trays or plates with Legos and set them around each mat.
3. Hand out one robot to each student.

Instructions:

1. Instruct the students take their robots down to one of the Robot Mats. Two to three students can be at one mat.
2. The students will do a Lego build on top of their robot. They will build for about 15-20 minutes. Some will build longer and that's okay.
IMPORTANT: It is important to let the students know to not cover any of the buttons on top of their robot because they will need to access these buttons to barcode scan for the Sumo battles.
3. When they are finished building they will barcode scan where it says on the mat Sumo wrestling.
4. They will turn on their robot and then place the robot right on top of the robot pictured on the mat facing the barcode. They will then hit the circle button on the top their robot three times. After doing this the robot should move forward and pass the barcode. They will hear a happy sound when it has coded correctly. It will make a not so happy sound if it did not code correctly and that's okay they will just try again and again until they hear the happy sound.
5. The students battling will put their robots in the sumo ring. They will place them as shown on the mat. If there's a third robot they will put it either to the right or the left of the other robots.
6. On the count of three, each student will press the triangle on their robot. They will see their robots start to battle. The last robot to stay in the ring Wins! They can battle as many times as they'd like. Let the students know that the Lego build might fall apart during this battle and it's okay! They can always go build between battles. The students can even switch robot mats and battle against other students.