STEMTaught Camp – I'm a Scientist

Jane Goodall: Day 2 Grades: 4-8

WELCOME

(5 min)

Earn sand dollars

Introduction: Welcome your students to camp. Be friendly.

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 pay role sheet.

STEM READERS THEATER

(30 min)

-Act out story: 15 min

-Discuss story: 5 min

-Activity: 30 min

READ JANE GOODALL, DAY 2: WATCHING, WAITING, HOPING

Prepare beforehand: Print out one copy of "Day 2: Watching, Waiting, Hoping" from the Jane Goodall story. Print one coloring page for each student from the "Student Sheets" section of Day 17. Gather scissors and tape.

What you'll do:

1. **Setup storytelling props (10 min):** Call up volunteers to help with the readers theater for "Day 2: Watching, Waiting, Hoping." 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.

Materials:

- Print one copy of "Day 2: Watching, Waiting, Hoping"
- Three pairs of scissors
- Roll of tape

STEM TIME

(30 min)

Materials:

- Cups
- Small ball or item

CUP GAMES

Ball and Cups Race

Be the first to move your ball through all the cups and ring the bell (or grab the item) at the end. This game requires speed, technique, dexterity, and motion.

1. Two players will face each other.

2. Set up a row of 10 cups in front of each player. Each player will have a small ball in their first cup.

3. On "Go," each player will quickly dump the ball from the first cup into the second cup, then from the second to the third, and all the way down the line.

4. Once the ball gets into the 10th cup, the player can ring the bell at the end (or grab an item). They are the winner. The winner stays, and a new challenger plays.

Materials:

- Cups
- Tennis ball or small ball

Cup Bowling

Score the most points by knocking down the most cups with a tennis ball or other small ball. This game uses force and motion.

1. This game is best played with smaller groups. If you have several players, set up multiple games of about three or four players each.

2. Set up 10 cups to represent bowling pins - one in front, two in the second row, three in the third row, and four in the fourth row.

3. Each player will get four turns per game. Each player will get to go twice in a row during each turn. The second turn is to knock down any remaining cups from the first roll. Each cup that is knocked down is scored as 1 point to keep the scoring simple. The player with the highest score at the end of the four rounds is the winner.

Materials:

- Cups
- 6-inch squares of construction paper

Team Tower Stacking

See what team can build the tallest tower that doesn't fall down.

1. Allow students to get into teams.

2. Time the teams to see who can build the tallest tower that does not fall. Set the timer for 5-10 minutes based on your discretion.

3. Set out cups and 6-inch squares of construction paper. Stack a cup, then a paper, a cup, then a paper. See who can build the tallest tower that doesn't fall.

MICROSCOPES

(60 min)

Materials:

- Leaves
- Crayons
- Microscopes
- Paper
- Pencils

GET TO KNOW THE TREES

Say: "Chimpanzees spend their lives amongst the trees. Today we are going on a nature walk around campus to get to know the trees around us, and collect leaves! As we walk, be sure to take notice of all of the different types of leaves around us. Notice their sizes, shapes, and colors! Each of you will get to make your own leaf collection, and be a scientist and study them under the microscope. Let's take a look and see what characteristics we observe!"

1. Take students outside to collect leaves from around campus! Remind them that it is kinder to take a leaf from the ground. Remember to not take too many leaves from one individual area of the plant. Give students lots of time to explore and be excited about the leaves they are collecting.

2. Students bring their leaves back to class and observe the cell structures under Meeka microscope. Remind them to use the bottom light if they want to see the leaves' cells.

3. Instructions for leaf rubbing and detailed microscope drawing: Give students crayons and more paper if needed to begin their rubbing. Explain: Put your leaf under a sheet of paper and use your crayon to color lightly, rubbing sideways over the leaf. You will see the beautiful patterns and veins emerge.

4. Students draw what they see under the microscope. Say: Leaves are truly fascinating and you will see some beautiful cellular structures under Meeka! Draw and color what you see to create a detailed, scientific, and zoomed in image of your leaf.

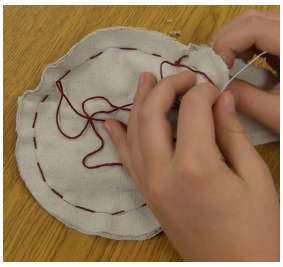
5. Have students share their drawings with others and talk about them. Say: "Talk to a neighbor about how you think a leaf could be helpful for us." Say: "Leaves give us shade and they help to clean the air and also give us air to breathe! Some leaves are even used for our food. Thank you, leaves!"

ART LAB

(60 min)

Materials:

- Templates
- Scissors
- Felt or fabric
- Embroidery needles
- Embroidery floss
- Stuffing
- Tape



SEW A CHIMP

1. Cut out the chimp template. Trace the template of the chimp body onto two pieces of fabric. Cut them out.

2. Trace around the templates for the face, body, hand and foot pads on the lighter color fabric. Cut them out.

3. Thread the needle using 2 strands of tan floss, about 2 feet long. Knot the end together by rolling the floss around the tip of your pointer finger, rolling it off, and pulling tight.

4. We will start by sewing the pieces onto the front of the bear, Place the tummy piece on the body. Secure it using a glue stick (just a little, not to the edges). Stitch the tummy in place using a running stitch. To do this, start by placing the needle under the fabric and pushing it up through the fabric to hide the knot. Place the needle down through the fabric and pull it to the bottom. Now, place the needle a short distance from the stitch, and pull it up through the top of the fabric. Continue sewing with the needle going up and down through the fabric, keeping the stitches and spaces as even as possible. Once you have sewn all around the tummy, tie a knot on the back of the fabric to secure the stitches.

5. Attach and sew the face onto the body in the same manner. Sew the pads to the hands and feet.

6. Eyes, nose, and mouth can be sewn on or drawn on with permanent marker.

7. Sew the front of the chimp to the back of the chimp. First, carefully line up the pieces and hold them in place with pins, paper clips or mini clamps if necessary. You will be leaving a 2-3” opening at the bottom to stuff your chimp. Using a whip stitch, start at the bottom right side of the chimp. Bring the needle up through the bottom of the chimp, and pull it through. Place the needle under the fabric a short distance away and pull it through the top again. For this stitch you will always start with the needle under the fabric and pull it through the top. The floss will be going around the edge of the fabric. Keep the stitches and spaces as even as possible. Once you have sewn around the chimp, leaving an opening to stuff through, tie a knot to secure your stitches.

8. Stuff the body using batting or cotton balls.

9. Sew the opening closed using the whip stitch. Name your new friend!

STEM GAMES

(60 min)

Materials:

- Fake banana (or other item to represent food)

Chimp, Chimp, Where's Your Food?

1. Use a fake banana from the play kitchen, or anything to represent food.

Chant- Chimp, chimp, where's your food? Somebody stole it, you're in a bad mood (or That was rude). Guess who, maybe you, maybe the dude with the bad attitude!

2. Choose one person to be the chimp, and to sit in a chair in front of the class. His back will be to the class. Tell him to close his eyes.

3. The leader will tap somebody, or point to them. This person will quietly walk up and get the food and return to their spot, hiding the food in their lap or behind their back.

4. The player sitting on the chair will open their eyes and turn around. They will have three guesses to guess who has the food.

5. The players can pretend to be guilty looking, or to have the food in their hands to fake out the guesser. After three guesses, the player with the food will have a turn to go up and sit in the chair.

*Depending on the size of the group the amount of guesses can be changed. The game will continue in this order. The chimp will have three guesses to figure out who took the food.

Materials:

- Paper plates
- Marbles

Toe Races

1. Divide players into teams of about 8 -10 kids per team. Have their chairs in a row, side by side. Each team can be across from the other team, or in a square, depending how many teams you have.

2. Kids will remove shoes and socks. Place a paper plate in front of each person. Place 10 marbles on the plate in front of the 1st player on each team.

3. On "GO" the 1st player will pick up a marble with his toes and move it to the plate of the player next to him. Player 2 will pick up the marble with her toes and move it to the plate next to her. As soon as player 1 passes the marble to player 2, they will quickly pick up another marble and pass it to player 2. The players will move the marbles down the line. Once the marble gets to the last player, he moves it off his plate to the floor beside him.

4. The game will continue as quickly as possible until all of the marbles have made it to the end.