# STEMTaught Camp Stema Scientist

Jane Goodall: Day 3 Grades: 4-8

#### WELCOME

(5 min)



## STEM READERS THEATER

(30 min)

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

-Activity: 30 min

#### Materials:

- Print one copy of "Day 3: Adventuring"
- Three pairs of scissors
- Roll of tape



**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 payroll sheet.

#### READ JANE GOODALL, DAY 3: ADVENTURING

**Prepare beforehand:** Print out one copy of "Day 3: Adventuring" from the Jane Goodall story. Print one coloring page for each student from the "Student Sheets" section of Day 18. Gather scissors and tape.

#### What you'll do:

- 1. **Setup storytelling props (10 min):** Call up volunteers to help with the reader's theater for "Day 3: Adventuring." 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 propholders 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)



#### ALL ABOUT CHIMPANZEES

#### **Listen to a Chimp Call and Greeting**

- 1. Have the students watch a video of a chimp doing a chimp call. Then have them try it! Play from 15 seconds—30 seconds.
- 2. Next, play a video of a chimp greeting. Then have them try it! Play from the 27 min 50 second mark to 28 min 50 seconds.

#### **Strength Activities**

Chimpanzees are strong! Lets try some strength activities! These are fun activities to do outside in a grassy area with a table.

#### Arm Wrestling:

- 1. Choose a partner that is about the same size/strength as you. Sit across from them at a table. Each partner will have his right elbow on the table with hand facing up. Partners will clasp hands.
- 2. Blow a whistle or say "Go."
- 3. Players will try to push the opponent's arm down to touch the table. You may not use your other hand to help. Play a couple rounds, then switch partners. Winners play against winners.

#### Two-Man Carry:

- 1. Get in groups of three. The lightest/smallest person will be carried, and the other two will be the carriers.
- 2. Each carrier will grab their left wrist with their right hand, palms down. Then grab your partner's right wrist with your left hand. Your partner will grab your right wrist with his left hand. Now you have a square-shaped seat made with your arms.
- 3. Lower your bodies so the third person can sit on your arms, with her arms around your shoulders. Stand carefully.
- 4. Try walking about 10 feet, then walk back. If all teammates are a similar size, switch positions, so everyone has a chance to carry and be carried.



#### ROBOTICS

(120 min)

#### Materials:

- Robots
- Why Bricks or Legos
- 8-10 Delightful Doodle Mats or use large pieces of paper
- Erasable markers
- Rubber bands
- Butcher paper, sheets, or tablecloths to protect the floor

Refer to the Additional Resources for more detailed instructions.





## BUILD AND CODE Set Up:

Place protective floor coverings such as butcher paper, tarp, or sheets on the ground and then put 5-10 "Delightful Doodle Robot Mats" or generic drawing paper on the ground. Set out why bricks or Legos and rubber bands and drawing utensils. If using the "Delightful Doodle Robot Mats" use dry erase markers.

Watch this movie of Jane Goodall's Discovery of chimps making tools. <a href="https://www.youtube.com/watch?v=CNXv8EEs0P8">https://www.youtube.com/watch?v=CNXv8EEs0P8</a>

Say: "Jane watched chimps make tools to help them. Today you get to make a tool to help your robot draw! First you need to engineer something to attach the drawing utensil to your robot. Maybe you can make a contraption that will hold more then one utensil. What tools can you make with bricks and rubber bands?"

Watch this movie for ideas. <a href="https://www.youtube.com/watch?v=-j4arUWRhj8&list=PLA8aFKvvytJ6ZQjxrUgQS61PpJ-CT8P3a">https://www.youtube.com/watch?v=-j4arUWRhj8&list=PLA8aFKvvytJ6ZQjxrUgQS61PpJ-CT8P3a</a>

#### Instructions:

- 1. The students will bring their robot and chrome books down to a mat. 2-3 students per mat. They will get to use Why Bricks or Legos to engineer a device to hold their marker or other drawing utensil.
- 2. Now they will attach a dry-erase marker to their build using a rubber band or maybe they will not need one. Take time to complement the students on their creations. Have the students take time to look at what everyone has built.
- 3. Have the students draw their invention in their journals.
- 4. When they are done let them attach their marker and open their Chromebooks or laptops and go to <u>edscratchapp.com</u>. It prompts you to choose Edison V2 or V3. Look at the top of your robot for the V#.
- 5. Using the drive tab students choose one block at a time from the first four blocks (forward, backwards, spin left, or spin right) by clicking on it, then dragging it over to the yellow START block. Make sure the block is all the way connected. They can add multiple blocks by clicking and attaching them to what they have already started.
- 6. When they have finished coding, they will take the USB from underneath the robot, and insert it into the computer. Click the program button in the right hand corner of the screen. Choose the version then press the connect button. It will make a happy noise when ready. Now unplug and set the robot on the mat.
- 7. Watch and see the beautiful art that they create!

Note: Most of the art will be abstract but if the students want a challenge, they could draw an object. The possibilities are endless!

### 1 C) STEMTaught

#### STEM GAMES

(60 min)

#### Materials:

- Board games
- Puzzles
- Blocks
- Coloring supplies
- Books





#### **Materials:**

Cups



#### 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, puzzles, blocks, or other things, reading, coloring/drawing (include ocean related coloring pages). Students can catch up on decorating and writing in their camp journals.

#### **Leader of the Troop Game**

- 1. Kids stand in a big circle.
- 2. One player is chosen to walk away, facing away/covering his eyes.
- 3. The leader chooses a person to be the head chimp of the troop. He will be the one to make and change actions, while the others follow what he's doing.
- 4. Call the player to come back and stand in the center of the circle. At this time all the other players are swinging their arms back and forth. When the player in the center isn't watching him, the Leader of the Troop changes the action and everyone else does what he's doing (the actions can be chimp/scientist related, or whatever the Leader wants). Do this action for 20 seconds or so, then the Leader of the Troop should change it to a new action.
- 5. Keep changing it up every 20 seconds or so. The person in the middle has to figure out who the Leader of the Troop is. If he can't figure it out within a couple minutes, choose new players to be the Leader of the Troop and the player in the middle.

#### **Cup Game: Head Stack**

Objective- Stack the most cups on your head without holding them.

Place a cup upside down on your head. Keep adding cups to see how many you can hold without dropping them. Then, try with the cups upright.