

STEM Taught Camp

I'm a Scientist



Albert Einstein: Day 3 Grades: 4-8

WELCOME

(5 min)



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

Materials:

- Print one copy of "Day 3: Hatching Ideas"
- Three pairs of scissors
- One roll of tape

READ EINSTEIN: ALWAYS ASK WHY, DAY 3: HATCHING IDEAS

Prepare beforehand: Print out one copy of "Day 3: Hatching Ideas" 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.



ACTIVITY

(30 min)

Materials:

- Foil
- Tape
- Colored pompoms
- White pompoms or wadded up pieces of paper

Materials:

- Parachute
- Balls of various weights and sizes

ROBOTICS

Materials:

- Robots
- Chromebooks
- Barcodes
- Mats
- Optional- candy

Photoelectric Effect

1. Assign $\frac{1}{4}$ kids to be metals and $\frac{3}{4}$ kids to be light photons.
2. Assign each of the metals 3 random colors from the colors of pompoms you have. You can make colored dots on their hands so they remember.
3. Tape a sheet of foil on the metals.
4. The light photons line up and take turns throwing colored pompoms at the metals. If the correct color hits the metal, they throw a white electron back. This is making energy!

Think Fast!

1. Start with the youngest kids. Call 3 to the board. Give them dry erase markers (or chalk). Give them a question that is age appropriate, for instance: "Spell the word BIRD."
2. The 1st one to finish spelling it correctly stays at the board. The other 2 sit down and 2 new players come up.
3. You can do other things besides spelling. You can give math questions and they write the answer on the board (they may need to write the problem first, then the answer). You could tell them to draw a food that starts with B. You could also give directions like "draw a bug on a pig in the mud."

Parachute Launch

Demonstrate how the theory of relativity works.

Say: **Gravity pulls stuff to the ground. Really big things curve space and time. Space and time are connected, this is called spacetime.**

1. Have the kids hold a sheet or parachute.
2. Toss a basketball on it.
Say: **See how the basketball bends the sheet/parachute down? This is how spacetime is bent or warped. Things like the Sun, stars and planets cause this.**
3. Now toss a small ball onto the sheet.
Say: **See how the small ball moves towards the bigger ball? This is how gravity works.**
4. Have fun experimenting by tossing balls of different weights and sizes onto the parachute, and launching them into the air. See which balls can go the highest!

PIÑATA CHALLENGE

Refer to the Additional Resources for detailed instructions.



