STEMTaught Camp
I'm a Scientist

Pierre and Marie Curie: Day 3 Grades: TK-3

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 payroll sheet.

STEM READERS THEATER

(30 min)

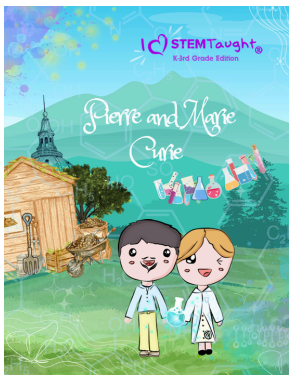
-Act out story: 15 min

-Discuss story: 5 min

-Activity: 30 min

Materials:

- Print one copy of "Day 3: Between a Stable and a Potato Shed"
- Three pairs of scissors
- Roll of tape



READ PIERRE AND MARIE CURIE, DAY 3: BETWEEN A STABLE AND A POTATO SHED

Prepare beforehand: Print out one copy of "Day 3: Between a Stable and a Potato Shed" from the Pierre and Marie Curie story. Print one coloring page for each student from the "Student Sheets" section of Day 13. 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: Between a Stable and a Potato Shed." 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.

Copyright © STEMTaught

STEM LAB

(30 min)

Materials:

- Cones

PROTONS AND ELECTRONS

Say: "Protons have a positive charge, and electrons have a negative charge. Opposites attract, and are always trying to catch each other."

1. Select a play area, and set up a center line and end zone on each end.

2. About 8 kids can play at once. Kids will line up in 4 pairs facing each other across the center line. The players on one side of the line are protons, and the players on the other side are electrons. The others line up on the sideline to wait their turn.

3. Give a command, like 3 jumping jacks. Everyone does what is commanded. Then call out either protons or electrons. If you call protons, the protons turn and run to their end zone before the electrons can tag them. If a proton makes it to the end zone without being tagged he is safe, and the electron is out. If he gets tagged before getting to the endzone, he is out.

4. The players that are out for that round go to the end of the line on the sidelines, and 4 new players come in to play the winners.

Command ideas: spin around twice, 8 high knees (run in place), 5 squats, 8 claps, 3 hops, etc.

STEM LAB

(60 min)

Materials:

- Tedros test tubes
- Brown rice
- White rice
- Trays

88
Ra
Radium
226.0254

RADIUM SEARCH

Say: "This is not a race. The process of finding and extracting radium and polonium was hard, strenuous work and it took a long time. Very small amounts were found in the pitchblende. Today we will go on a 'radium' search of our own."

1. Fill 15-20 test tubes rom Kea with brown rice. Add 6 grains of white rice. Mix them in.

2. Kids will be in groups of about 2-4. Depending on the number of groups you have, you will need that many test tubes of rice (i.e. if you have 30 kids you would need 10-15 test tubes).

3. Hide the test tubes around campus.

4. Each group has to search for a test tube, then find it and bring it back to class.

5. The groups will dump the rice out on a tray or paper plate, and search for the extremely valuable white grains (radium).

Copyright © STEMTaught

Summer Camp

The Curies: Day 3

I ♡ STEMTaught®

ART LAB

(60 min)

Materials:

- Baking soda
- Cotton swabs
- Rubbing alcohol
- Turmeric
- Paper
- Cylinders of water -stem bag
- Paintbrushes

CUP GAMES

(60 min)

Materials:

- Cups
- Ping-pong balls
- Optional: treats

INVISIBLE INK SECRET MESSAGES

Say: Did you know that invisible ink has been used for thousands of years to write letters and send secret messages? Ancient Greeks, spies in the revolutionary war, and kids today use invisible ink. Today you will send secret messages to your friends using invisible ink! The message will be revealed using a chemical reaction.

1. For a group of students add **100 ml cup of water** to a graduated cylinder, add **1 tablespoon of baking soda (14 ml)**. Students mix well.

3. Write a message or draw a picture on paper using the mixture and cotton swabs. Students can make several. Dry for 10 min.

4. Leaders mix **100 ml** rubbing alcohol w/ **1 tsp turmeric (5 ml)** In a cup. This amount should be enough for 2-3 kids to paint on their message.

5. Paint over your message on a tray or on a plastic covered desk. **Be careful, turmeric will stain desks! Cut a trash bag or find another protective surface to do all the painting on. Don't paint on unprotected surfaces as it will stain.** Paint over the paper to reveal the message in red!

Bounce-Off

Objective: Get the most balls into the cups. This game requires effort.
Instructions: Set up a group of cups at one end of a table. Bounce ping-pong balls into them. If you have different colored ping-pong balls the players can take turns bouncing. If you have one color, then the first player will bounce all the balls and add their score. Then, the next player will bounce all the balls and add their score.

*Alternative- Put some treats in some of the cups for students.

Ups and Downs

Objective- Be the team with the most cups facing your direction. This game requires teamwork, speed, and strategy.

Instructions- This game requires two teams and lots of cups. One team will be "Ups," and the other will be "Downs." Go outside or play in the multipurpose room. Spread the cups around the room or play area, with half facing up and the other half facing down. On "Go," the teams will run and flip the cups up or down depending on their team name. On "Stop," whichever team has the most cups facing their direction wins.

Play Catch

Objective- Play catch with cups and ping-pong balls or pom-poms.
Instructions- Plastic cups can be used as throwers and catchers to toss a ping-pong ball or pom-pom back and forth. Kids can play alone, in pairs, or in small groups.