

STEM Taught Camp

I'm a Scientist

Pierre and Marie Curie: Day 5 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 payroll sheet.

STEM READERS THEATER

(30 min)

- Act out story: 15 min
- Discuss story: 5 min
- Activity: 30 min

READ PIERRE AND MARIE CURIE, DAY 5: AMERICA AND BEYOND

Prepare beforehand: Print out one copy of “Day 5: America and Beyond” from the Pierre and Marie Curie story. Print one coloring page for each student from the “Student Sheets” section of Day 15. Gather scissors and tape.

What you'll do:

Materials:

- Print one copy of “Day 5: America and Beyond”
- Three pairs of scissors
- Roll of tape

1. **Setup storytelling props (10 min):** Call up volunteers to help with the reader's theater for “Day 5: America and Beyond.” 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.



STEM LAB

(30 min)

Materials:

- Bell or buzzer



BOYS VS GIRLS READING REVIEW

1. Play Boys vs. Girls. One boy and one girl will come to the front. You will ask a question about things that have been learned this week. A bell/ buzzer is optional.
2. The first player to answer the question correctly gets a point for their team. Those players sit down and 2 new players will come up. Decide on a winning number, such as: the first team to reach 15 points is the winner.

Suggestions:

What do Marie and Pierre like studying? **Example: Marie likes poetry, science, and math. Pierre likes geometry a lot, and being out studying plants and animals in nature.**

Ask: What made Aunty so uncomfortable? **Example: She was amazed that a girl wanted to study science at university and change the world.**

Ask: How are Marie and Pierre's fathers similar? **Example: They both taught their kids at home, although Marie also went to a regular school. They both are very smart and good at the sciences. They seem kind and proud of their kids.**

Ask: What promise did the two sisters make? **Example: Marie would work in Poland and send money to Bronya so she could become a doctor in Paris, and Bronya would then call Marie as soon as she was done.**

Ask: What does Marie do to earn money? **Example: She works as a governess for a wealthy family.**

Ask: Is university a wonderful time for Marie? Why or why not? **Example: University is not without challenges for Marie. She has very little money for basic necessities like heat, clothes, or food. However, being able to learn freely makes her feel like a whole new world is opening up for her.**

Ask: What did Marie and Pierre discover? **Example: Two new elements, Polonium and Radium.**

Ask: What was different about these elements? **Example: They glowed.**

Ask: Where did Marie hide the radium? **Example: Bourdeaux.**

Ask: How is Irene similar to her parents? **Example: She enjoys science, studies at the Sorbonne, and is helping her mother in the war.**

Ask: Why is Marie's health likely suffering? **Example: Because she has been handling radium without protection for years.**

STEM LAB

(60 min)

Materials:

- Sheet/large towels
- Roll of streamers
- Glue stick
- Hole punch dots or sticky dots
- Red washable marker
- Wet paper towels
- Notes with injuries

GAME: “LITTLE CURIES” BATTLEFIELD

Marie and her 17 yr old daughter played a great role during ww1 helping to save countless lives by creating 20 mobile x ray vehicles and over-seeing 200 medical tents. **This is a great game that requires a little preparation. But the prep is fun, too!**

Objective: Get your injured teammates to the medic vehicle on a “stretcher.” While they are being treated, the rescuers will go back and rescue another teammate, till everyone on their team has been rescued and treated.

Notes with injuries: (broken leg, broken arm, shrapnel, gun shot, etc). For shrapnel, put some glue stick on a body part and attach a bunch of colored hole-punched dots, or colored sticky dots that medics remove. For a gunshot, you could use a bigger dot glued on with a line of washable marker blood that medics clean with a wet paper towel. For a broken arm, the medics wrap it in a steamer/toilet paper bandage.

Tip: create teams indoors

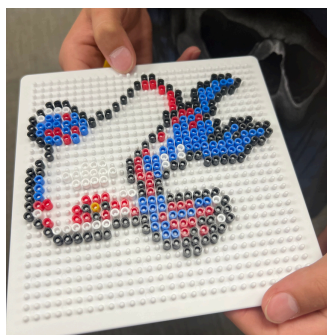
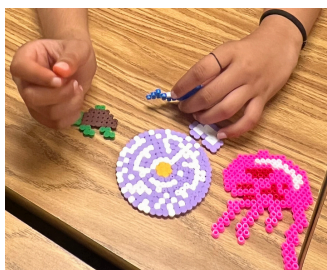
1. Explain the game. Choose rescuers and medics, and give out notes to injured soldiers. Prep injuries on soldiers indoors so it won't take as much time. Kids will be more contained and it will go faster. You could say “Everyone with shrapnel come over,” then “Everyone with a bullet wound come over.” Prepping them all at once inside the classroom will be easier and more efficient.
2. Each team should have about 10-12 kids. Make sure there is a mix of big kids and little kids. Four kids will need to carry the stretchers. One or two kids can be the medics.
3. Kids line up at one end of a play area. Position two medics at the other end. Choose four rescuers to carry the stretcher (they can rotate if desired). Give each injured soldier in line a paper with an injury written on it.
4. Play: On “GO”/whistle, the four rescuers will lay down the folded sheet and the 1st player will lay down on the stretcher. They will hold the corners and carry the injured teammate to the medic. Then they will go back to get the next injured teammate.
5. The medics will quickly read the note telling what is wrong and treat the soldier.
6. The first team to get all their injured soldiers treated is the winner.

STEM LAB

(60 min)

Materials:

- Fuse beads
- Pegboard trays
- Iron
- Parchment paper (this can be used over and over)
- Patterns for ideas
- Optional:
Yarn, cord, or thin ribbon, keychains



MAKE A MOMENTO

Say: “As all things are made from elements you can make a simple model of anything you can think of and see that it is made up of a lot of smaller parts. You can add a string loop and hang it on a backpack or water bottle. See what you can create.”

Make designs using fuse beads. These can be hung on backpacks, made into keychains, necklaces, earrings, or hair clips. These are great for eye-hand coordination, sorting, counting, and following patterns.

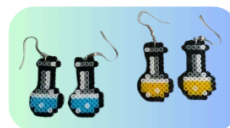
Set up:

Place the beads in bowls or containers. Lay out the pegboards. Have sample patterns for kids that want to use them.

Instructions:

1. Kids will make their designs by placing the fuse beads on the pegboards one at a time. Remind the kids not to bump each other or the table because the beads will fall off and they will need to start over. They can make their own designs or follow a pattern.
2. Preheat an iron a little over medium heat. Place a piece of parchment paper over the beads on the tray. Keeping the iron level, gently iron the beads in a circular motion for about 20-30 seconds to fuse the beads evenly. Let it cool for a minute, then remove the parchment paper. Optional, but good—flip the beads over and replace the parchment paper and iron the other side. You can place the finished item under a heavy book so it cools perfectly flat.
3. Kids can make their creation into backpack dangles, keychains, hair clips, necklaces, etc.

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Boil and bubble see if you can make some lab supplies all of your own. Remember when you see bubbling it is one indicator that a chemical reaction is occurring.



WATER GAMES

(60 min)

Materials:

- Refer to the "Water Games Printable" document for materials

ENJOY A WATER DAY

This is your special water day! You can make it your own by choosing games from the Water Games Printable, or you can follow the suggested schedule below which works great!

4-8

Water Ball Tag

Water Ball Volleyball

Jump Rope Splash

The first 30 minutes will be organized games. The games can be found in the "Water Games Printable" PDF. You will need at least 2 hoses available. One will go to fill pools and wet the slip n' slide, and one to have a sprinkler going. If you have access to more hoses you can have more sprinklers going.

It is best if the kickball station is always set up at every water day, as this is the students favorite activity, especially for free time. If there is more than one class per water session, then it is best to alternate games. Before starting the activity, you will need to explain to the students the directions from the Water Games Printable.

After the water games, allow the next 15-20 minutes for free time. Free time could include sprinklers, reusable water balloons, squirters, water table, slip n' slide, kickball, or any of the activities they've already done!

Now it's time for some water fun! Encourage the students to be respectful, work together, and have a blast! The last 10-15 minutes is clean up and drying time! Have an amazing water day!

