

I ♥ STEM Taught[®]
K-3rd Grade Edition

Pierre and Marie Curie



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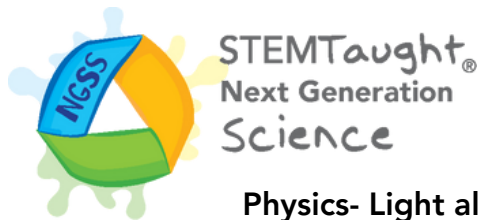
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Written by Stacy Morrison, Aysha Imtiaz and Beth Hunter

Cover Art: Bella Hunter, Aysha Imtiaz

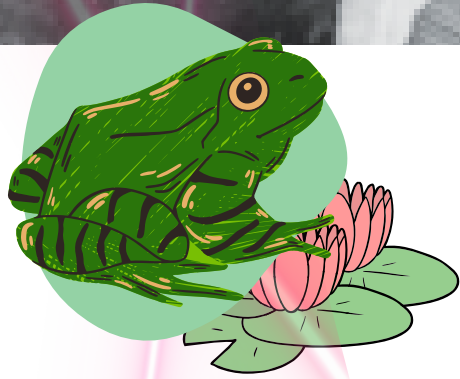


Made with
recyclable paper
(Not ceramic coated)



Physics- Light allows us to see (Waves and their Applications in Technologies for Information Transfer 1-PS4-2). Make observations to construct an evidence-based account that objects can be seen only when illuminated.

Physics- Experiment with light; transparent, translucent, opaque, and reflective (Waves and their Applications in Technologies for Information Transfer 1-PS4-3). Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.



Day 1: Beginning





Day 1: Beginning

Marie and Pierre Curie: Interactive Story Ideas!



Background scene:

Play this video **on silent** in the background on a big screen, smart board, or laptop.

<https://www.youtube.com/watch?v=UZmXjPeMJf0>

Poland - Ambient Music | Autumn • #1 • flymore.pro • 4K



Storytelling Role-Play: 1-5 sand dollars each

(2 students to help cut out props and 6 students to role play)

Choose 2 boy volunteers and 2 girl volunteers to portray Marie, her father, Pierre and Eugene Curie.

Let students listen for their part and act out what is happening in the story.



New word: 1-5 sand dollars

(Students can earn a sand dollar for discussion participation)

Wriggly: Wriggling means twisting and squirming. If you are wriggly, you might wiggle around a lot. Try it!

*Remind the students that they can earn a sand dollar if they tell you at the end of the story what the new word means. If they get it wrong remind them of the definition and have them try again in a few minutes.

Day 1: Marie and Pierre Curie

It is holiday time in 1875, and eight-year-old Maria's hair whips against her face as she races through fields of grain. She zips through sprawling woods and sloping fields, stopping frequently to sing Polish songs to nearby birds at the top of her lungs. She loves her country, **(Arm band prompt, stroke the band and smile)**, but she isn't allowed to speak Polish, because Poland is currently being controlled by Russia. Sometimes, in the evenings, her family sits and sings Polish songs by candle light. **(Candle prompt, sit in a circle and sing in a whisper).**

She is the youngest of five children, and her parents call her Manya. Her father teaches Math and Physics, and her mother runs a boarding school.

"Manya?" calls her father, "What do you enjoy the most in your studies?"

"Oh Papa, I love it all! I love literature as well as the sciences. I love science and math. I want to help the whole world with my science!"

Nearly a thousand miles away in Paris, France, 16-year-old Pierre Curie loves geometry and math. He also loves all sorts of animals, and knows every pond, forest, and field of Paris. He often picks them up to examine them closely—even if it is a **wiggly** salamander or a slippery frog. **(Salamander prompt, count the legs and spots, then salamander leaps away).**



Questions/Reading discussion: 1-5 sand dollars
(Students can earn a sand dollar for discussion participation)

Ask: Does Marie have siblings?

Example: Yes, she has four siblings because she is the youngest of 5.

Ask: Why can't Marie sing in Polish?

Example: They're not allowed to because their country is taken over by Russia.

Day 1: Marie and Pierre Curie

Pierre's dad Dr. Eugene Curie loves nature too, and he is gardening. (Watering can prompt. Make a water sound while you water). Pierre helps. He carefully studies the beautiful shape of a Lilly petal. (Lilly prompt, hold it up and study it)

Both Maria and Pierre's father help them study and learn more about the world around them.

Times are hard. Maria loses her sister and beloved mother. Her father loses his job. But with her father she finds hope in their science experiments.



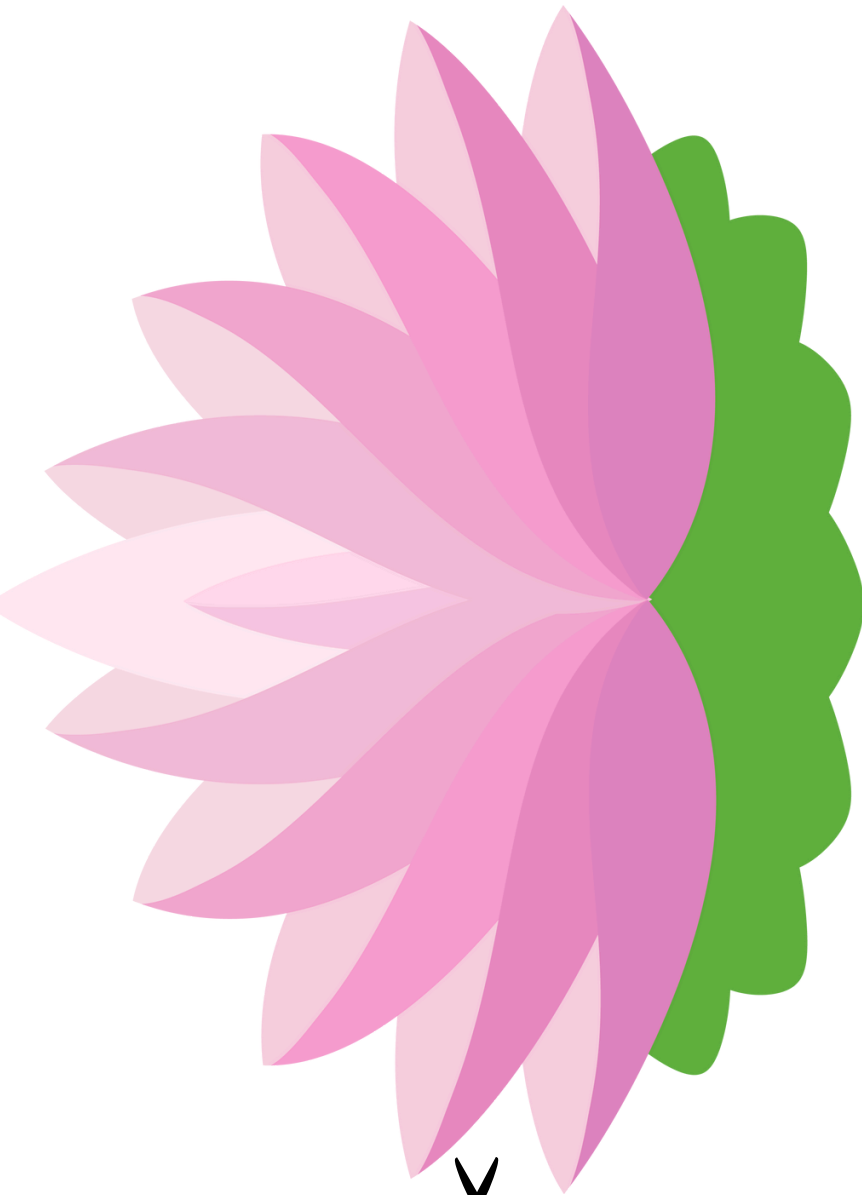
Questions/Reading discussion: 1-5 sand dollars
(Students can earn a sand dollar for discussion participation)

Ask: What do Maria and Pierre like studying?

Example: Maria likes literature, science and math. Pierre likes geometry a lot, and being out studying plants and animals in nature.

Ask: How are Maria and Pierre's fathers similar?

Example: They both taught their kids at home, although Maria also went to a regular school. They both are very smart and good at the sciences. They seem kind and proud of their kids.



Cut out this water Lilly for
Pierre to study and fold in
half to see if the petals line
up.




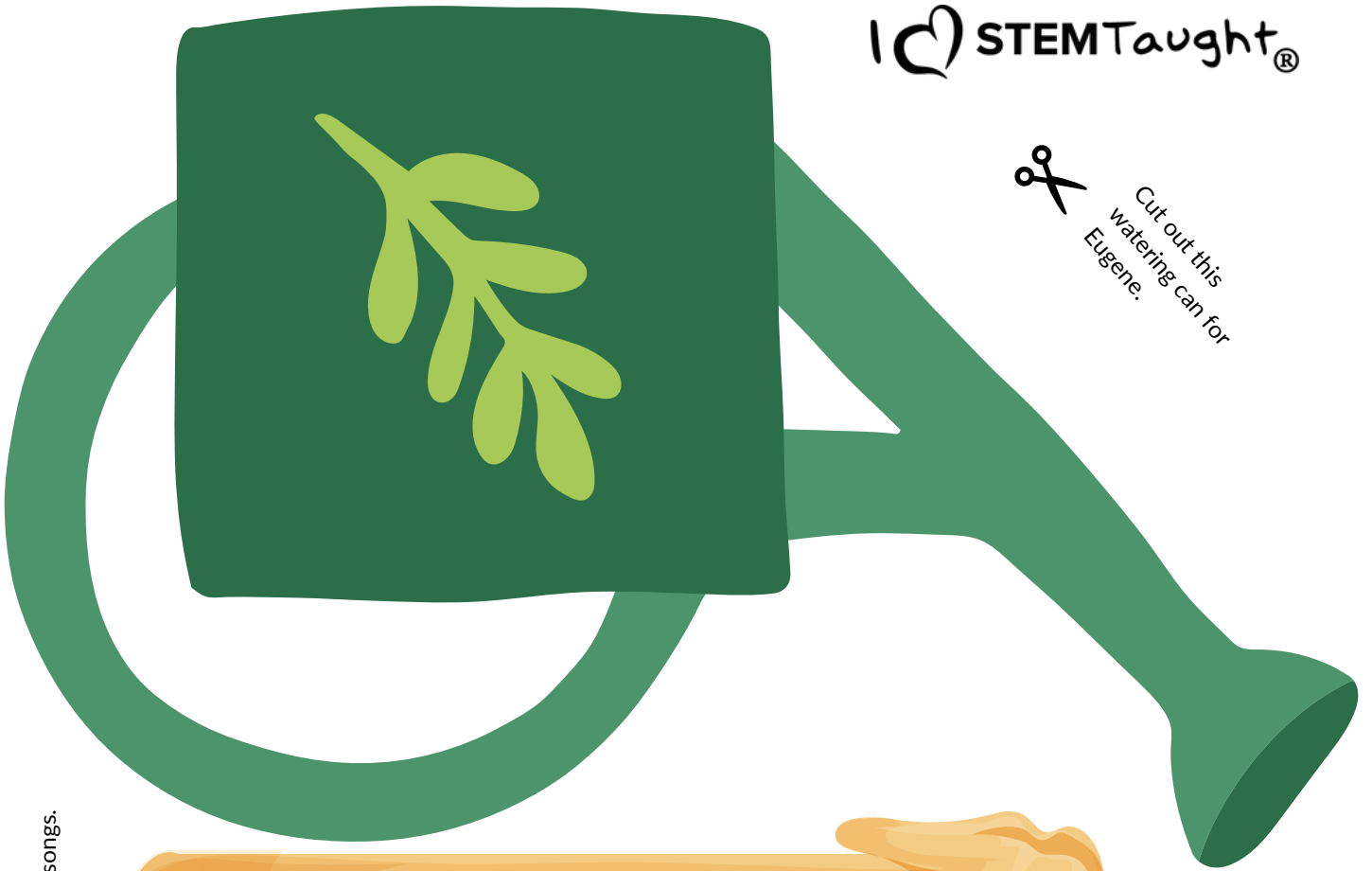
Cut out this band and tape it around
Maria's upper arm.




Maria: Wear this
around your arm
proudly and sing!
Fa la la la la!


Pierre: Study
this Lilly
carefully then
smell it and say
ahhh.

 Cut out this watering can for Eugene.



 Cut out this candle for Maria and her family to softly sing songs.



 Cut out this salamander for Pierre to observe.

Eugene: Water your garden with Pierre. Make a watering sound and say, "Son, you're such a good dreamer!"

Maria: Sing in a whisper by the candle light.

Pierre: Count the spots of this salamander. Then have it jump out of your hands.