



6700 Merle Hay Road, Johnston, IA 50131 • Voice: 515-278-5233 • Fax: 515-278-4975 • info@johnstonlibrary.com

Johnston Public Library Book Discussion Questions

Radioactive by Lauren Redniss

Summary

Radioactive is the visual journey into the life of Marie Curie, as told through the dazzling collage style of acclaimed author and artist Lauren Redniss. A brilliant visual storyteller, Redniss has hand-designed more than 100 color collages to tell Curie's story, fascinating in its scientific significance and its sometimes whimsical, sometimes haunting mix of romance and intrigue. Bringing together archival photos, images, and clippings with dazzling line drawings and a compelling narrative, *Radioactive* is far more than just an art book or a graphic novel: It is a stunning visual biography and a true work of art.

Discussion Questions

1. How do you categorize this book? The New York Times Book Review called it a “graphic biography.” Would you call it an illustrated book of non-fiction? An art book? If you were recommending the book to a friend, would you feel it essential to describe the ‘type’ of book it is and not just what it’s about? Before reading this book, what did you already know about radioactivity? About Marie and Pierre Curie?
2. At the beginning of *Radioactive*, Redniss apologizes to Marie Curie, who said: “There is no connection between my scientific work and the facts of private life.” Why do you think Redniss apologizes to Marie? What tensions lie between Redniss’s narrative and artistic goals and Marie Curie’s statement? Do you believe there is a connection between the work that we do professionally and who we are personally?
3. The word ‘fallout’ in the subtitle of the book has a duplicity of meaning. What are different ways that the word “fallout” can be interpreted? Consider the chapter titles: Symmetry, Magnetism, Fusion, White Flash, Instability of Matter, Half-life, Isolation, Exposure, and Daughter Elements. Does each work both as a description of the science of the section as well as something else? If so, what else?
4. *Radioactive* is a beautiful book. Is Redniss trying to complement the natural beauty of science with the design of her book? Are the horrors she shows also part of the beauty? What are some of your favorite images from the book, and why? 5. In what way does the author’s use of different kinds of artwork (cyanotype, collage, photography) contribute to the understanding of a historical figure’s life? How does Redniss capture what Marie calls “spontaneous luminosity” through her artistic process in creating cyanotype prints? Do you think that the artwork in the book is reflective of the experiences Marie had throughout her career?

6. Sometimes Redniss uses her artwork to fill in the story, or in the place of language (for example, the depiction of Pierre's death on pages 96-101 and again on 106-107). How does this technique affect your reading of the narrative? Are the pictures more effective than words could be? Does Redniss make other choices with her artwork to alter or enhance your reading? Consider the shift from black and white line illustrations at the beginning of the book to color, photography and collage which starts on page 28. Were you conscious of that shift? What does it bring to the narrative?

7. At the end of the book, we learn the legacy of the Curies in shaping the next generation's career choices in the sciences. Redniss alludes to a relationship between the half-lives of radiocarbon dating, radioactivity, and relationships. Does learning her children and grandchildren became scientists alter your feelings about Marie as a mother? Were you concerned at the beginning of the book about how much time away from family life it took to make such discoveries? Were you concerned about her exposure to toxic chemicals? Should she have been concerned at the time?

8. How do you think human history would have been different if we could easily detect radioactivity? If you could see it or hear it?

9. Ordinary people have been in the market for 'miracle cures' from the time of the Curies through today. When radium was first discovered it was "an instant public hit" (p. 61), as it was said to cure anemia, arteriosclerosis, arthritis, diabetes, and much more. What drives people to look for miracle cures? Did the Curies' discovery of radium during the rise of Spiritualism in the early 20th century improve the ability of charlatans to make a living on radium? What are some examples from today of vitamins, supplements, minerals or foods whose 'usefulness' may be being oversold?

10. In 1895, Wilhelm Rontgen created the first x-ray--of his wife's finger. Upon seeing the image, his wife "intuited the power of her husband's discovery --to intercept, as well as hasten, death" (p. 42). In Marie's own case, the very thing that brought her fame and a successful career--Radium--also brought her death as well as a miscarriage. Radium is also still used to treat cancer while also being highly toxic and deadly. How do we reconcile the fact that advancements in science can be used to both enhance and hinder humanity?

11. Cheryl Baldwin Frech, in her review of *Radioactive* for the *Journal of Chemical Education* states: "Some chemists and physicists may be unnerved by the artistic nature of this book or the author's tendency to include somewhat antinuclear anecdotes." Do you agree? Does Redniss balance these anecdotes with scientific developments that have benefited humankind? What are some of these developments the author discusses? What are some examples of others that are not discussed?

12. Not only was Marie Curie the first woman to win the Nobel Prize twice and the only woman to win the Nobel in two separate fields, but she also became the first female professor at Sorbonne in 1906, after the death of her husband, Pierre. Arguably, Marie Curie is a pioneer in the field of science and women's rights. What is the significance of her successes in terms of the role of women in science, and more broadly, within society? How do you think expectations for Marie regarding her role as professional and mother are similar or different to what women experience now?

13. On page 61, Marie Curie says, "If our discoveries have a commercial future, this is an accident." Later, Irene Curie and Frederic Jolie, pacifists, discovered artificial radioactivity, which led to the

creation of the atomic bomb. Scientists seem to have little control over how their discoveries are used. If this is the case, who, if anyone, has or should have moral and ethical responsibility for how the discoveries are used?

14. As a reader, how did you react to the time shifting back and forth throughout the book? At times, the reason for this shifting is obvious—for juxtaposition (see part V, the section that includes the bombing of Japan). At other times, it is not. Why do you think Redniss created a non-linear tale with *Radioactive*?

Summary from Goodreads.com

Discussion Questions from Madison Public Library and University of Wisconsin-Madison