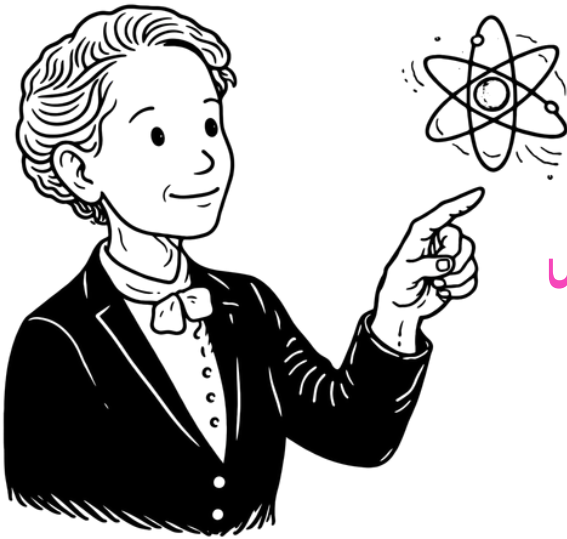


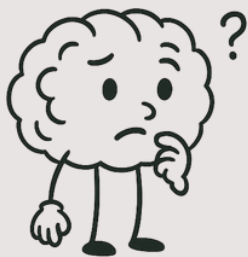
## Science hero: Lise Meitner



—the woman who  
unlocked the secrets  
of atomic energy!

Lise Meitner was a curious and determined child who loved solving puzzles and figuring out how things worked. However, growing up in the late 1800s, she faced a big challenge: girls weren't allowed to go to university. That didn't stop Lise. Her parents believed in her and hired a private tutor so she could continue learning. She worked harder than ever and eventually became a brilliant physicist.

Her most important work was figuring out how atoms can split apart and release an enormous amount of energy. In 1938, two scientists, Otto Hahn and Fritz Strassmann, did an experiment where a uranium atom unexpectedly broke into smaller pieces, but they didn't understand why. Lise, working with her nephew Otto Frisch, solved the mystery. The atom had split, and this process was named nuclear fission.



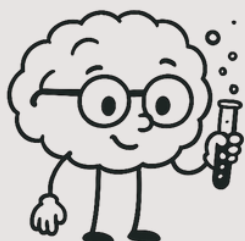
### Wait, what does “nuclear fission” mean?

Nuclear fission is when the tiny nucleus at the centre of an atom splits in two, and that split releases a huge amount of energy.

That’s how nuclear power plants make electricity. It’s also the science that Lise Meitner helped discover!

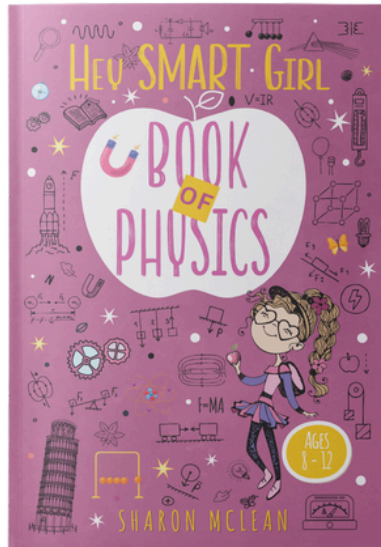
But here’s the unfair part. When the discovery won a Nobel Prize, Lise wasn’t given any credit. Her male colleague, Otto Hahn, got all the recognition. Although she didn’t win the prize, scientists now recognise her as one of the most important physicists in history. She was so brilliant that an element on the Periodic Table —Meitnerium (Mt)—was named after her!

Lise’s work still affects our world today. Nuclear energy provides electricity to millions of homes and could one day help power human colonies on the Moon or Mars.



### Test it like a scientist:

Would you like to carry out your own experiments? Follow the QR code on the next page to find the step by step experiment.



## Ready for More Physics Adventures?

Good news — there's a LOT more to learn and discover. Hey Smart Girl: Book of Physics is packed with 30+ hands-on experiments, mind-blowing facts, inspiring scientist stories, and everything you need to understand the forces and energy that power our world. Perfect for girls ages 8-12.

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