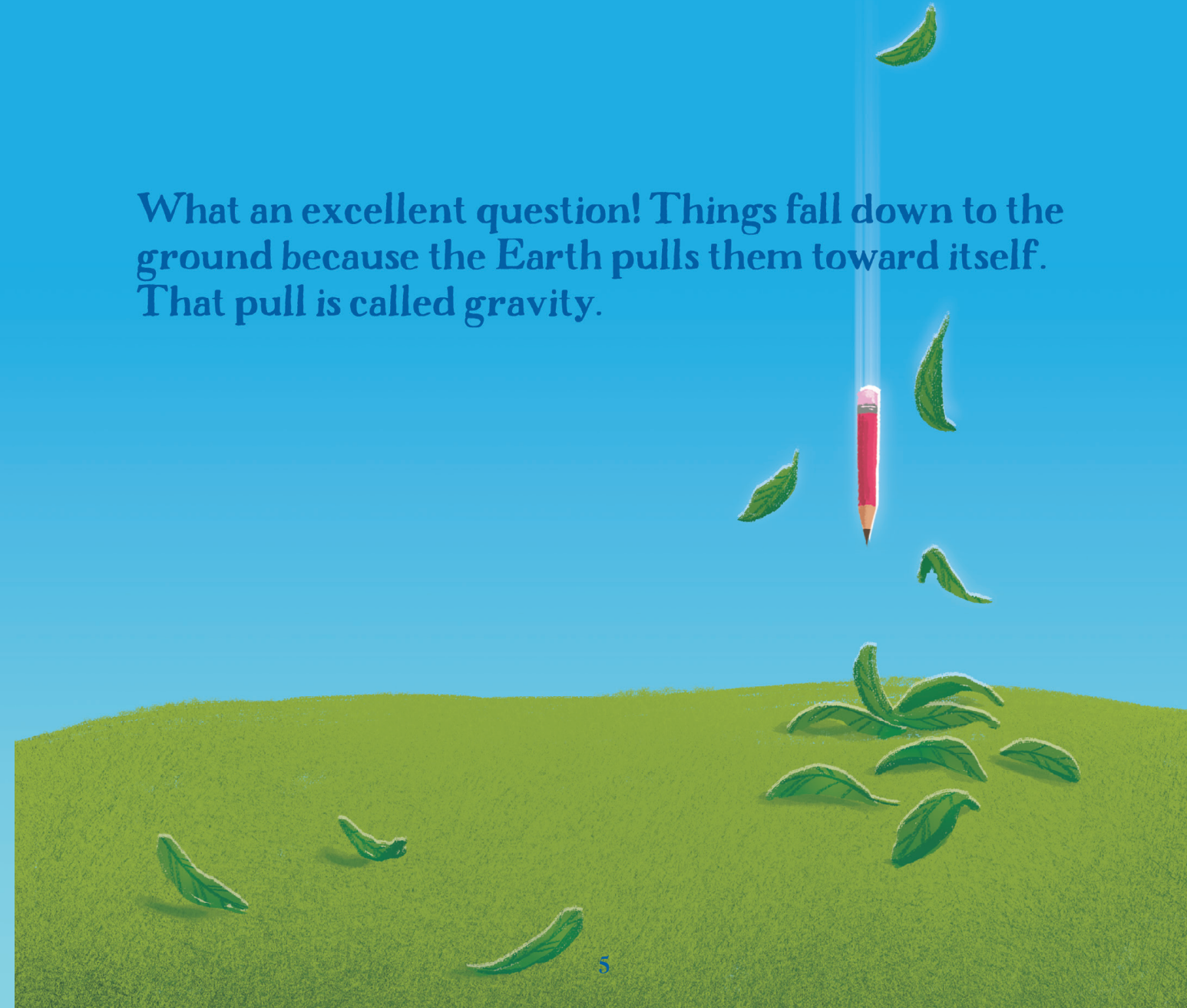


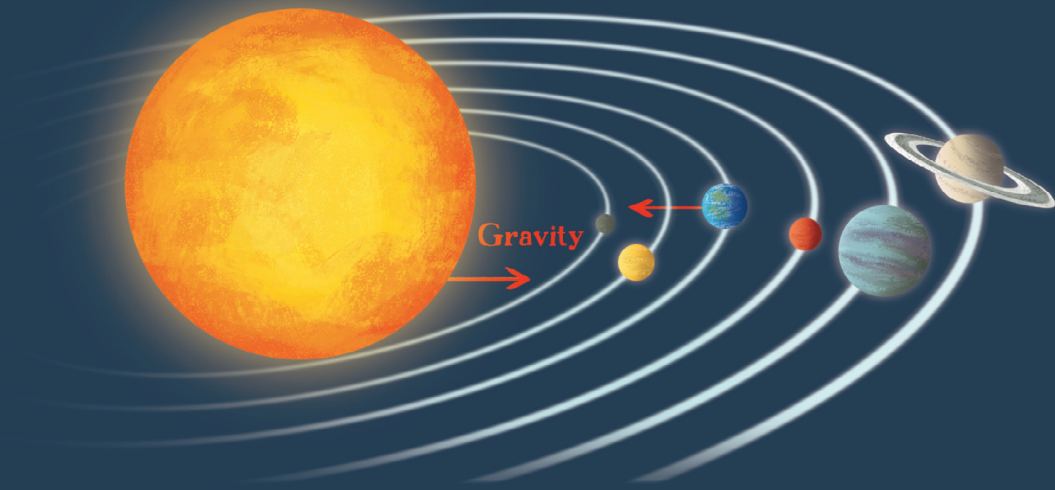




Why do things fall down?

What an excellent question! Things fall down to the ground because the Earth pulls them toward itself. That pull is called gravity.





To make it tougher, the best book on things like gravity—Isaac Newton's *Principia*—was only written in Latin.

But that didn't stop a brave woman like Émilie.

Émilie du Châtelet was also curious about gravity, but finding answers wasn't easy.

People talked about big ideas in cafés, but back then only men were allowed. Émilie dressed in men's clothing so she could join the conversation.

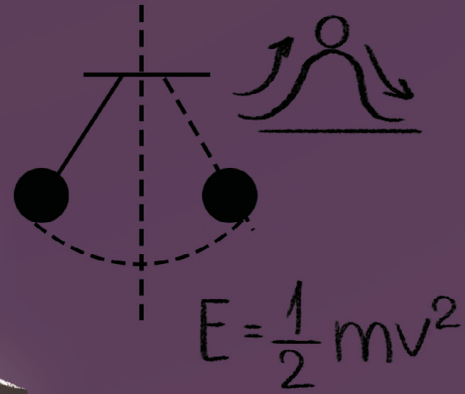




Émilie spent four years translating the entire book into French, so she could read it in her language. Her research and experiments helped her create equations and form new ideas about gravity. She got people around the world excited about physics, and her work inspired future scientists like Albert Einstein.



(France, 1706–1749)



So glad you asked! Physics is the study of how and why everything in the universe moves and works. Physics helps us explain how birds can fly, or why water freezes when it's cold and turns into steam when it's hot.

That sounds important. But what's physics?

