“Aaarrrrrrgh!”
Earth is angry today.
Really, really, angry.
Aru is at it again. She is, for the twentieth time, preparing to fly like the superheroes in her comics.
And for the twentieth time, she screams, “Aaarrrrrrgh!

“Gravity, I haaaate you!”
“Pffft! That’s so unfair,” mutters Earth.

“Gravity is an amazing force. Air, plants, animals, mountains, oceans, stars, houses, cars and schools, Aru and even me—none of us would be where we are if it weren’t for gravity!

But how do I get Aru to see this?”
Earth hatches a plan.
“Hello, Aru. This is Earth. Since you hate gravity so much, I have decided to take it away. Please fly around as much as you want to.

“Of course, you will have to catch your cape first!”
“Whaaaaa...”

“NoooOOOO!”

“Eeeeeeeeeee!”

“Aaaaaaaa!!”

“Whoaahhhhh!”
“Please, please, stop! I called gravity silly because I want to fly. But now everything is flying,” says Aru.

“Hmmmpppph! You think all gravity does is stop you from flying?”

“Huh? What else does it do apart from keeping me on the ground?” Aru asks.
Earth sighs and explains, “Gravity is an invisible force that makes everything, and I mean EVERYTHING, around us pull or attract each other. It keeps all things in order.”
Without it, all things, even you and I, would just float away and disappear into space. Poof!”
Aru is quick to ask, “But where is all this pulling? I don’t see it at all.”

“Well observed, Aru! Everything is indeed pulling on each other all the time. You just don’t see or feel it because I am the heaviest object around you. And my pull is the strongest. So I pull everything to myself and keep us all grounded.

“And my pull is the strongest around you because I have the most mass. Remember, greater the mass, stronger the pull,” says Earth.

Mass is the amount of matter or stuff in an object.
“Hmmm...and the moon? It’s pretty big too. And Jupiter?” Aru asks.

“Ah, now you’re really beginning to catch on, Aru. The moon is much lighter than me, so it doesn’t pull you as hard as I do. But it is close enough to pull the water in our oceans and create tides.”
“You see, the farther the object, the lesser its pull.

“Now take the planet Jupiter—it’s the largest one we have in our solar system. It does have a much, much larger mass, but because it’s so far away, it makes the pull weaker than that of the moon.”
The universe is full of things heavier than Earth. Like the sun. It pulls Earth and the other planets, and makes them move around it. This also creates days, months, years and seasons, summer holidays, and even special days like birthdays. There are many planets and stars that are heavier than Earth but they are so far away that their pull has little effect on our planet.
Aru is quiet for a while. Suddenly, she flaps her arms, and says, 
“But I do want to fly! Fly, fly, fly, away!”
“And you will. You could learn to pilot a plane when you grow up, or take off to the moon in a rocket.”

Aru is thrilled to hear this. “Yes, one day, I WILL fly! Now can you please turn gravity back on again?”
“What did you break now, Aru?”

“It wasn’t me, Ma. It was gravity!”
“Aaaarrrgghhh!”
What do you think would change on Earth if the moon turned into Jupiter?

Why does Earth not fall into the sun?

What do you think would change on Earth if the moon moved 10 times farther away?

Could a bird fly if there was no air?
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Earth Calling Aru
(English)

Aru wants to fly, but gravity is keeping her firmly rooted to the ground. What if there was no gravity on Earth for a few minutes? Aru is about to find out.

This is a Level 3 book for children who are ready to read on their own.

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