





# Eye Can See Author: Meethil Momaya

**Illustrator:** Ankita Thakur



School is closed for summer.

Every day Chanda, Tinku and Motu have a new plan up their sleeves.

Some days they trek to the nearby hill. On other days, they play hide and-seek in the caves behind the house.

They plan to go stargazing tonight.

But right now, they are off to Chanda's Ma and Baba's laboratory. Chanda's parents are agricultural scientists.

Sharma Kaka, who is also a scientist at the laboratory, lets them in.





"Motu, please be as quiet as a mouse," says Chanda.

## Tinku looks around—huge books, rice saplings, laboratory equipment.



Chanda spots a magnifying glass and hands it to Tinku. He peers into it and his eyes become BIG.

"Ooooh, how does Motu's nose look five times its actual size?" asks Tinku.

"A magnifying glass has a powerful lens that makes small objects look bigger, and helps us see them clearly," says Chanda. "Does that mean the magnifying glass can help me look at all kinds ofsmall things? Like ants and sugar and even those germs Ma says live in my teeth," says Tinku.

"You can definitely see ants and sugar and all the jeera golis you dropwhile eating them. But to see germs, you need an even more powerful instrument called a microscope," says Chanda.

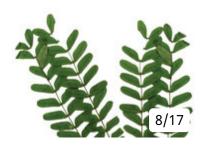


"Micro means very small. Does it make small things look very big?" asks Tinku. "Yes, Ma works on the microscope all the time. Come, let me show you."



Tinku is fascinated with how the microscope looks. The magnifying glass has just one lens; the microscope uses a combination of lenses to make things look really large.

"We can see what our hair is made of, what leaves are made of and even what makes up our blood! When we give our blood sample for testing at the laboratory, the pathologist looks through the microscope and tells us which bacteria or virus is making us sick," says Chanda.



"Didi, when I want something small to look bigger, I can use a magnifying glass. When I want something even smaller to look bigger, I can use a microscope," says Tinku. "But what can I use when I want to see something that is far away and looks tiny?"

"You can use a pair of binoculars or you can use a telescope," says Chanda.



"Doesn't Salim Mamu use binoculars when he goes to watch birds?" asks Tinku.

"Yes, he uses binoculars. He doesn't want to disturb the birds by going too close to them! I have Baba's old pair of binoculars, let's see what it can do." "All I see is blue!" says Tinku.

Chanda laughs. "You are looking at the sky! Little by little, bring your hands down. Sloooowly."





"I can see a bird pecking at something! But if I move my hand even a little, it goes away."

"That is because its lenses are very powerful. Even a slight movement of your hands will completely change the view from your binoculars," says Chanda.

That night, Chanda and Tinku return to the laboratory to go stargazing.

"The scientists have arranged for a telescope from the nearby planetarium. I will show it to you," she tells Tinku.



Standing on the terrace, his eyes fixed to the telescope, Tinku says, "Saturn looks just like the drawings in our school books. We can't see it like this without a powerful telescope."

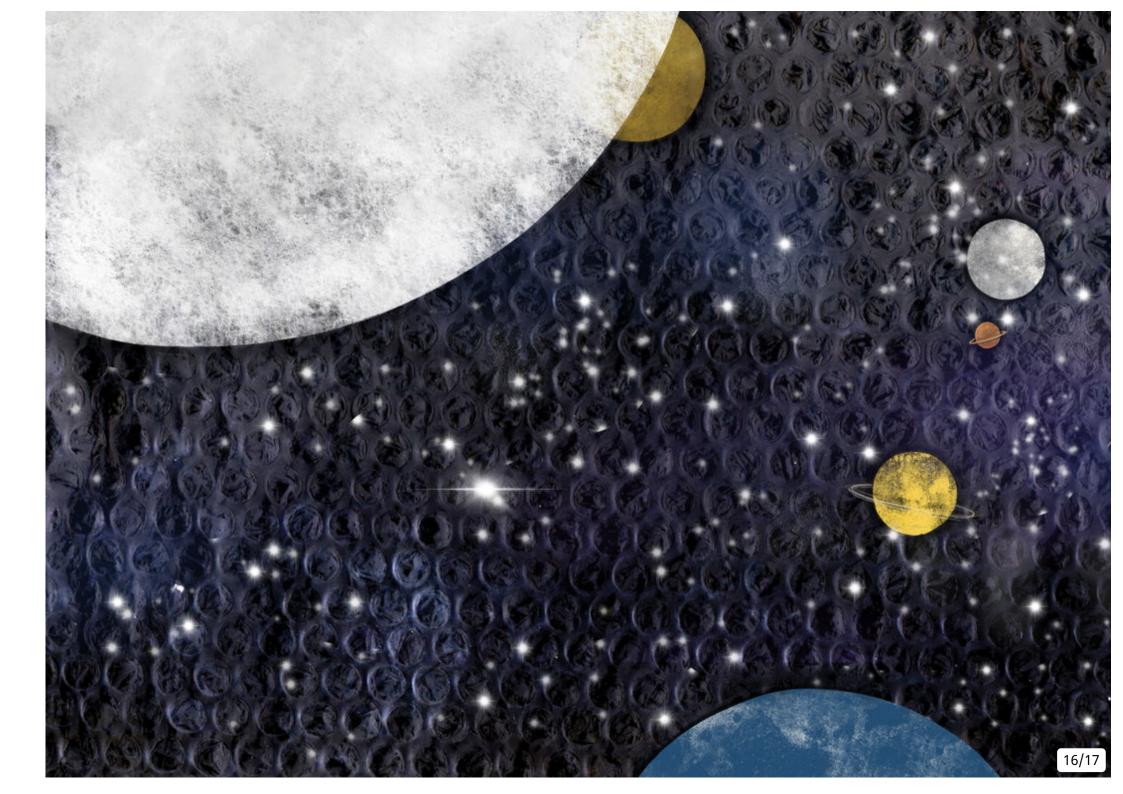


"Some telescopes are as large as huge houses and are powerful enough to show us galaxies far away," says Chanda.

Tinku gazes at the star-burst sky and asks, "Didi, do you think that people from other planets are looking at us through their telescopes too?"

Chanda grabs the telescope and searches for aliens.







### What Do You See?

Magnifying glasses and microscopes help us see small things clearly. Binoculars and telescopes help us see faraway objects better. All have one or more lenses.

A lens is a piece of glass or some other see-through material that is curved on one or both sides. As light moves in a straight line, lenses help to bend it in such a way that when it reaches the eye, the object seen through the lens can look bigger or smaller than it really is.



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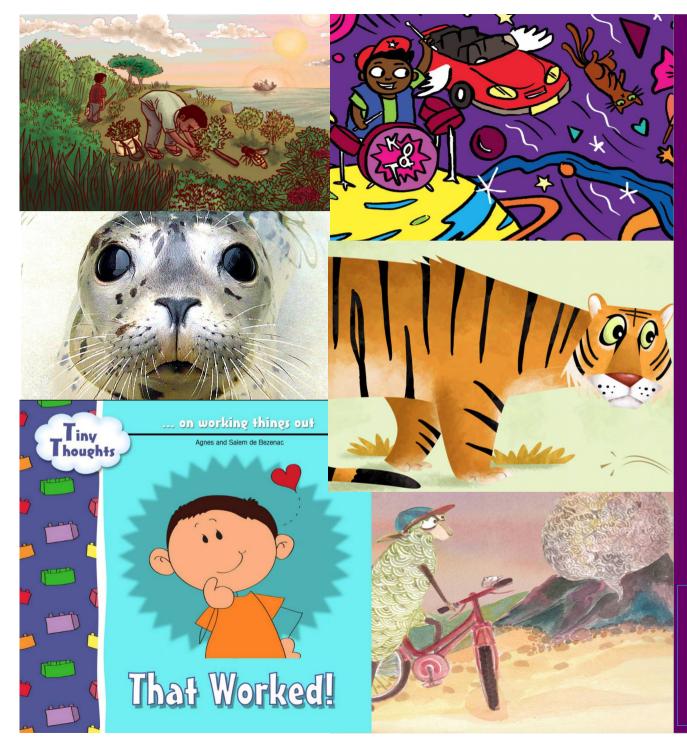
# **Eye Can See** (English)

Chanda, Tinku and Motu visit a laboratory and look through different lenses. They see distant stars as well as miniscule stuff up close. Let's take a look through these lenses.

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



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