The Day the Sun Disappeared



Anaya and Miles arrived at Riverside Science Camp just before noon. The sky was clear, but something felt unusual.

The birds grew quieter, the shadows looked sharper, and even the air seemed cooler.

Miles looked around. ‘Is a storm coming?’

Anaya checked the sky. ‘There are no clouds.’

Dr. Vega smiled and opened a small case filled with eclipse glasses and a simple model of the Sun, Earth, and Moon.

“No storm,’ she said. “Today, the Sun has a visitor.”

Science Fables

The Moving Pieces



Dr. Vega placed the flashlight on the picnic table. ‘This is the Sun,’ she said.

She held up the globe. ‘This is Earth.’

Then she lifted the gray Moon ball.

Miles frowned. ‘But the Moon is much smaller than the Sun. How can it change the daylight?’

Dr. Vega moved the Moon in front of the flashlight, and a dark spot appeared on the globe.

Anaya leaned closer. ‘The Moon is blocking the light.’

‘Exactly,’ said Dr. Vega. ‘When the Sun, Moon, and Earth line up, shadows fall in surprising places.’

Science Fables

The Solar Eclipse



Dr. Vega moved the Moon between the Sun and Earth.
'This is a solar eclipse,' she explained.
Anaya and Miles put on their eclipse glasses.
Through the dark lenses, the Sun looked like a glowing coin with a bite missing.
The camp grew dimmer, and tiny crescent shapes appeared on a sheet of paper under a colander.
'Each opening acts like a tiny projector,' Dr. Vega said.
Miles stared at the crescents. 'So we can study the eclipse without staring at the Sun.'
'That's right,' said Dr. Vega. "During a solar eclipse, eye safety matters.'

Science Fables

Totality



For a few moments, the world seemed to hold its breath.
The light faded even more, and the Sun became a dark circle surrounded by a glowing ring.
‘That glow is the Sun’s corona,’ Dr. Vega said softly.
Miles looked around in wonder.
The horizon glowed like sunset in every direction, and the air felt cooler.
‘It feels impossible,’ he said.
Dr. Vega smiled. ‘It feels impossible, but it is geometry.’
Anaya could hardly look away from the strange beauty of totality.

Science Fables

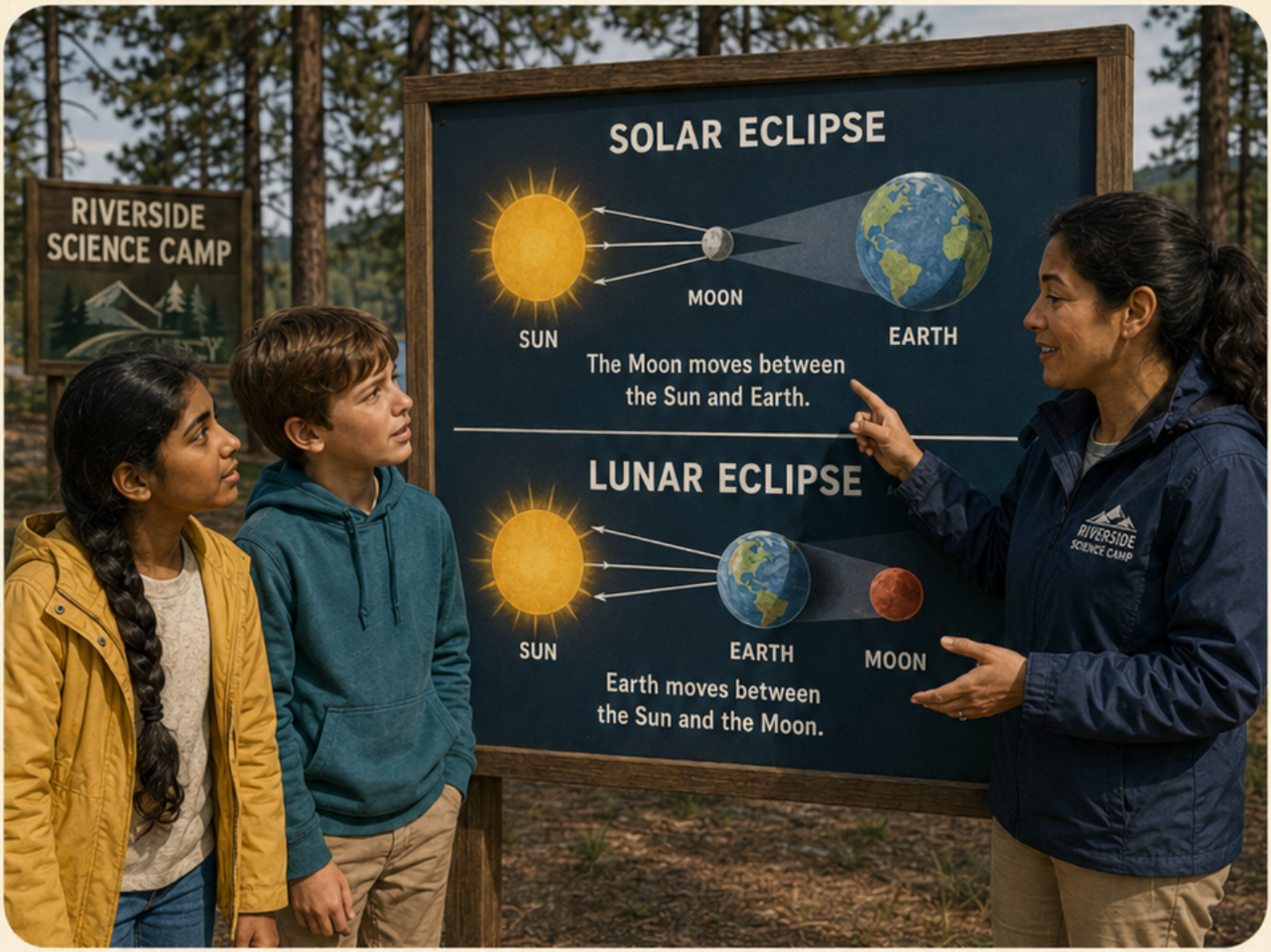
The Moon's Turn



Later that evening, Dr. Vega set up the model again.
This time she placed Earth between the Sun and the Moon.
Earth's shadow fell across the Moon ball.
'This is a lunar eclipse,' she explained.
Anaya nodded. 'So in a solar eclipse, the Moon's shadow
falls on Earth. In a lunar eclipse, Earth's shadow falls on the Moon.'
Dr. Vega smiled. 'Perfect.'
Then she showed them a photo of a copper-red Moon.
"Sometimes Earth's atmosphere bends reddish sunlight into the shadow,'
she said. 'That is why a lunar eclipse can look red.'

Science Fables

Science Element



An eclipse happens when the Sun, Moon, and Earth line up so that one object blocks light and casts a shadow.

A solar eclipse happens when the Moon moves between the Sun and Earth.

A lunar eclipse happens when Earth moves between the Sun and the Moon.

During a total solar eclipse, the Sun's outer atmosphere, called the corona, becomes visible.

During some lunar eclipses, the Moon can look red because Earth's atmosphere bends reddish sunlight into Earth's shadow.

Important safety rule: never look directly at the Sun without proper eclipse glasses.

Simple idea: an eclipse is a shadow event in space.

Science Fables