

THE SKY



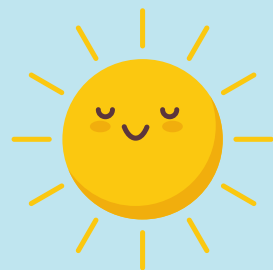
THAT DOESNT SLEEP

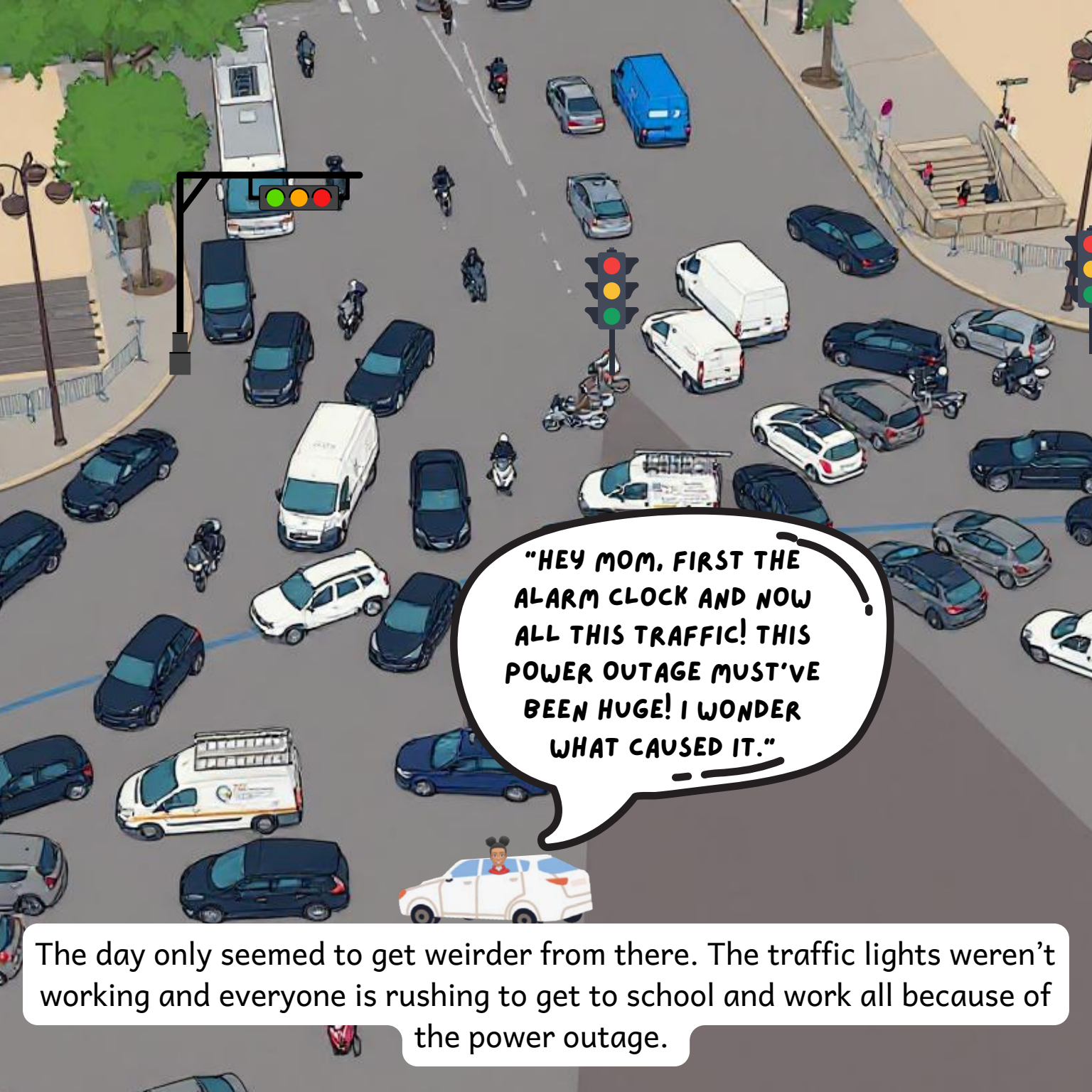




Meet Sophie. She's a 10 year old who is late for a school field trip to the space museum today. Her alarm clock didn't ring and her phone didn't charge because there was a brief power outage this morning.

Sophie runs out the door and into the car where her mom is patiently waiting before they go to school.





**"HEY MOM, FIRST THE
ALARM CLOCK AND NOW
ALL THIS TRAFFIC! THIS
POWER OUTAGE MUST'VE
BEEN HUGE! I WONDER
WHAT CAUSED IT."**

The day only seemed to get weirder from there. The traffic lights weren't working and everyone is rushing to get to school and work all because of the power outage.



She finally arrives at school after a long time. As she arrives at school, she witnesses the chaos amongst the teachers, as they try to organize the students.

Once on the bus, the teacher claps his hands to get the attention of the excited students.

**"HELLO GRADE FOUR
STUDENTS! IT HAS BEEN A
CRAZY MORNING FOR
EVERYONE TODAY
BECAUSE OF SPACE
WEATHER."**





**"DO YOU REMEMBER WHEN
WE TALKED ABOUT SPACE
WEATHER IN CLASS A FEW
WEEKS AGO? LET'S DO A
QUICK REVIEW."**



WHAT IS SPACE WEATHER?



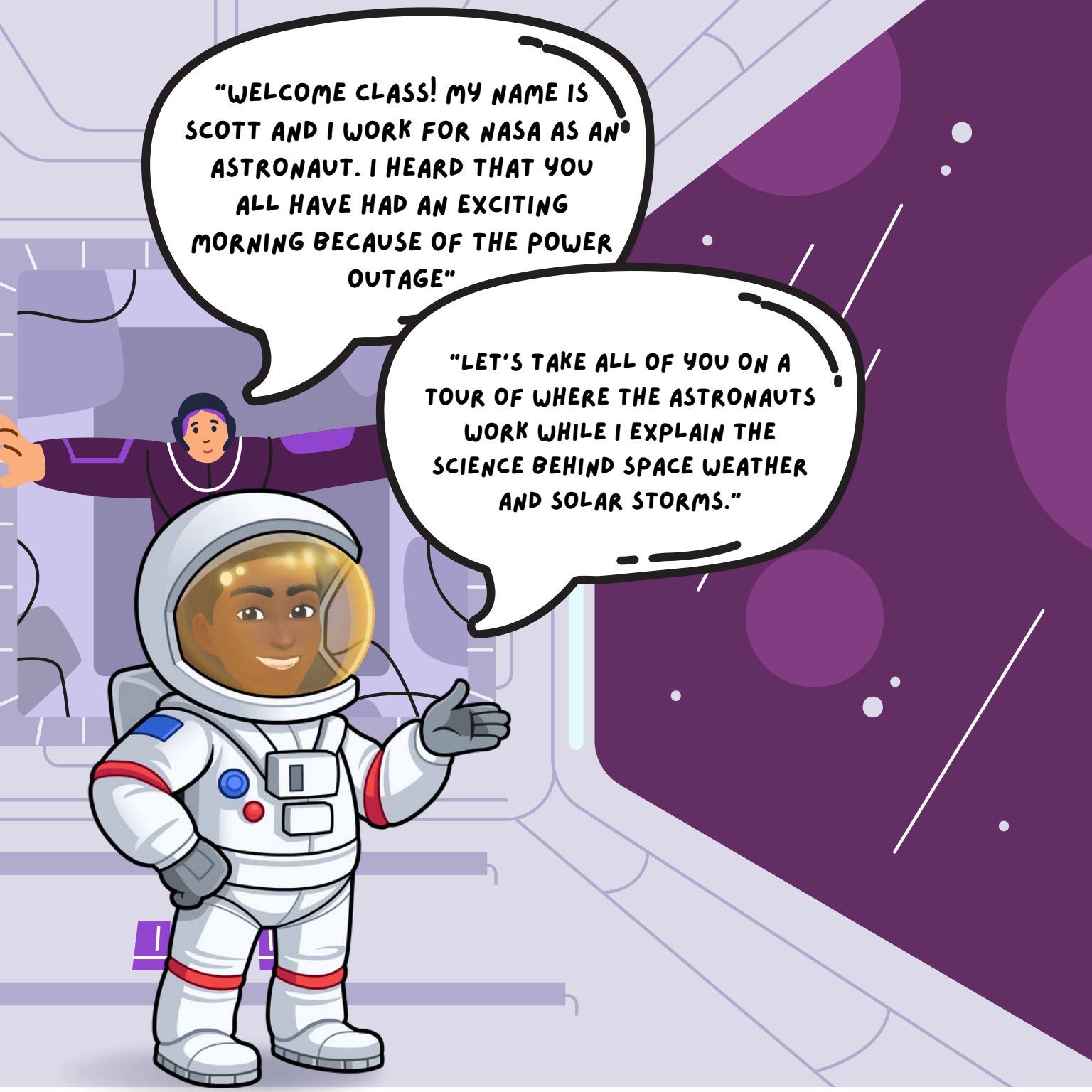
“The astronauts will explain this more when we meet them later today, but just like Earth, space has a specific weather too. Space weather is impacted by the sun and different conditions in the environment in space can impact us on Earth, especially if we have a solar storm. They can impact technology, especially radios and GPS signalling which is why your alarms may not have worked this morning and why the traffic lights are not working properly. Let’s hope this was the last of the challenges this morning and the rest of this field trip will go smoothly.”

SPACE CENTER

H O U S

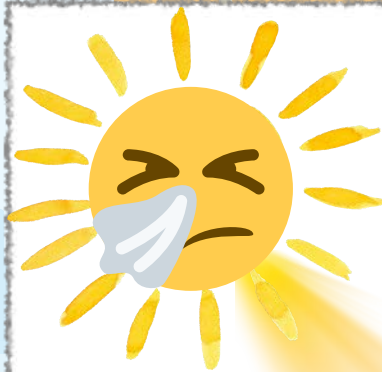
"HOORAY!! WE MADE IT TO
THE NASA SPACE CENTER
IN HOUSTON, TEXAS.
LET'S GO MEET SOME
ASTROANUTS."

STOP



"WELCOME CLASS! MY NAME IS
SCOTT AND I WORK FOR NASA AS AN
ASTRONAUT. I HEARD THAT YOU
ALL HAVE HAD AN EXCITING
MORNING BECAUSE OF THE POWER
OUTAGE"

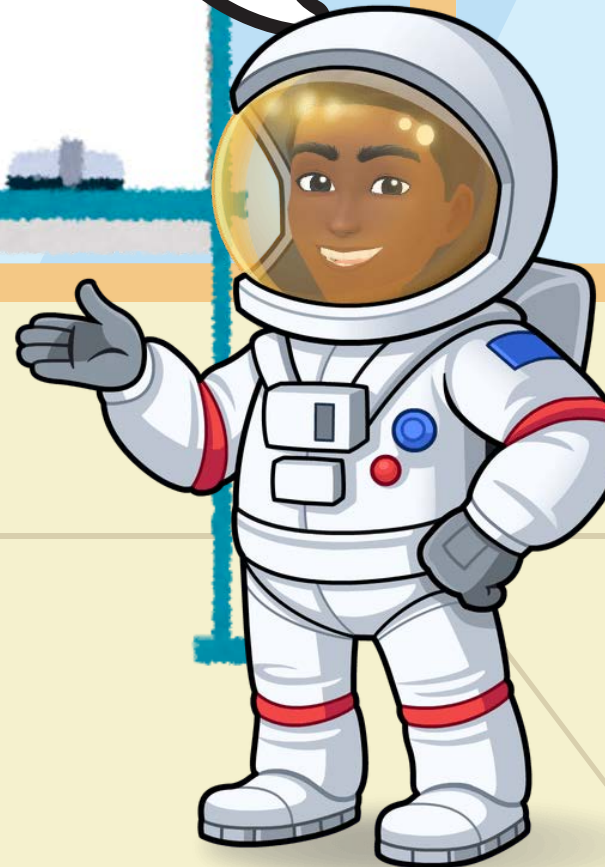
"LET'S TAKE ALL OF YOU ON A
TOUR OF WHERE THE ASTRONAUTS
WORK WHILE I EXPLAIN THE
SCIENCE BEHIND SPACE WEATHER
AND SOLAR STORMS."

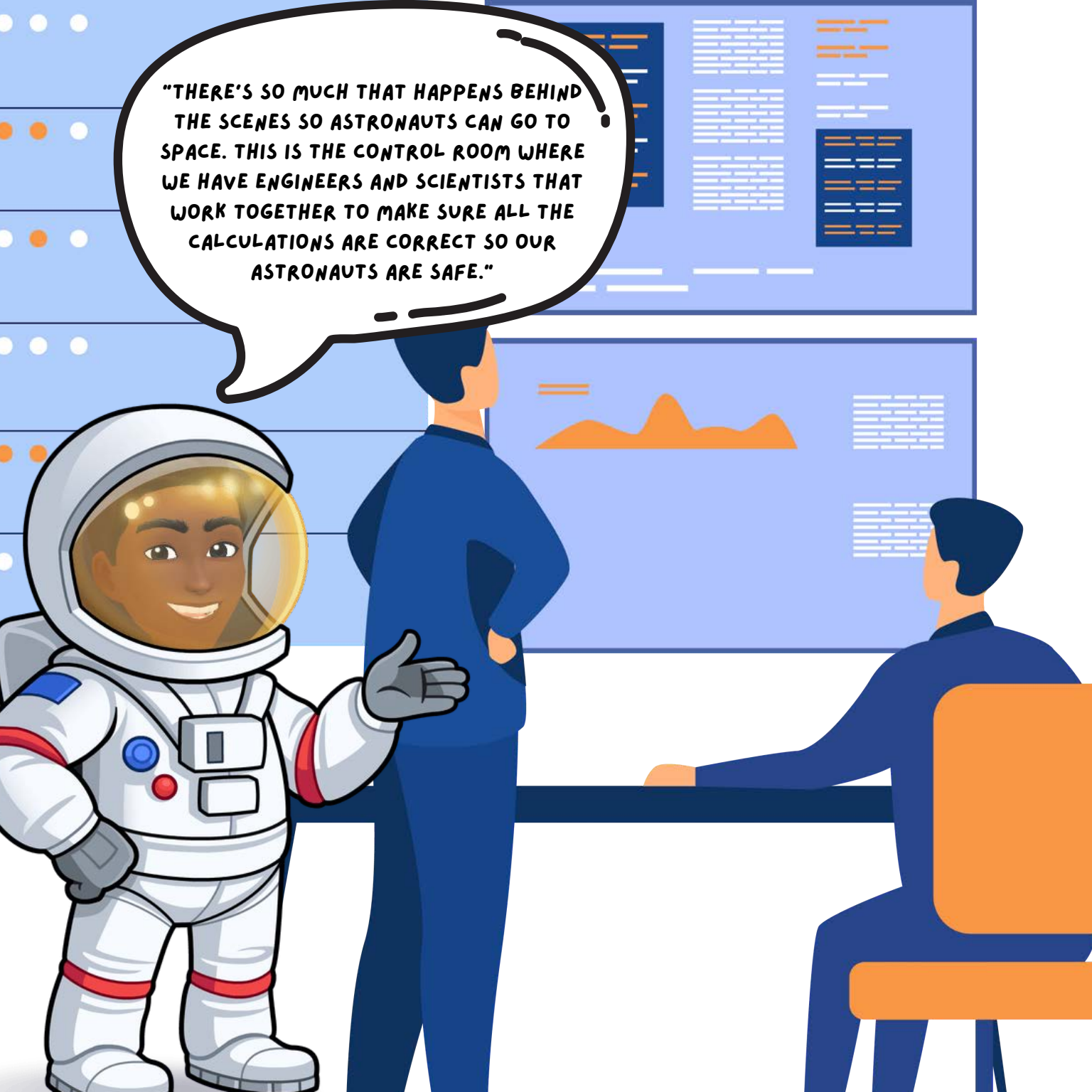


ACHOO!



"THE SUN SOMETIMES LETS EXTRA ENERGY ESCAPE INTO SPACE, WHICH CAN CAUSE THESE PARTICLES TO BUMP INTO EARTH'S INVISIBLE SHIELD. IT'S LIKE THE SUN IS LETTING OUT A BIG SNEEZE. THIS CAN CAUSE ISSUES WITH THE SATELLITES IN SPACE, CONFUSE GPS SIGNALS, AND IMPACT POWER GRIDS THAT SUPPLY ELECTRICITY INTO YOUR HOMES. WHEN THIS HAPPENS, IT'S CALLED A SOLAR STORM BECAUSE ENERGY, PARTICLES, AND A BALL OF MATERIAL ARE RELEASED."

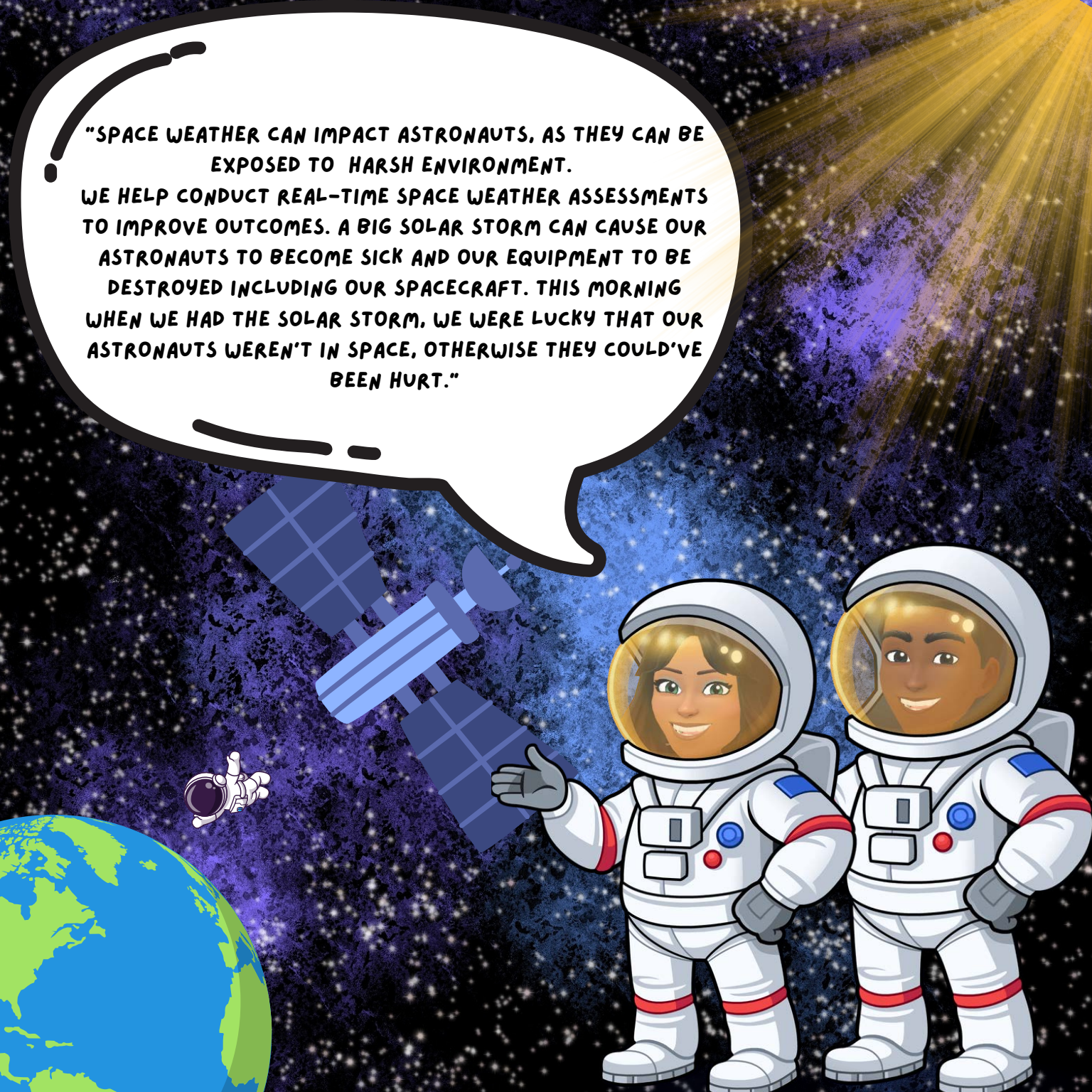




"THERE'S SO MUCH THAT HAPPENS BEHIND THE SCENES SO ASTRONAUTS CAN GO TO SPACE. THIS IS THE CONTROL ROOM WHERE WE HAVE ENGINEERS AND SCIENTISTS THAT WORK TOGETHER TO MAKE SURE ALL THE CALCULATIONS ARE CORRECT SO OUR ASTRONAUTS ARE SAFE."

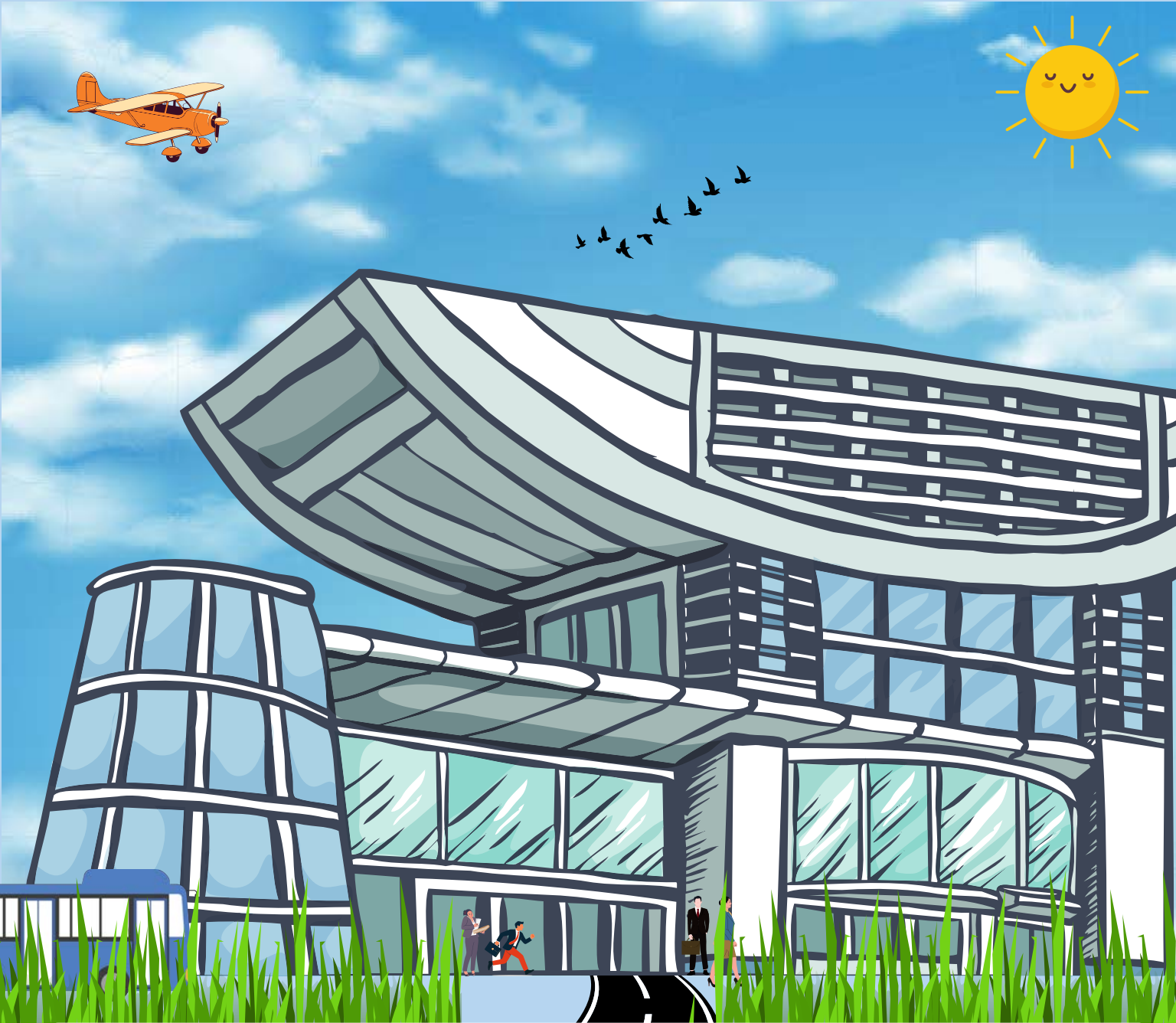
"SPACE WEATHER CAN IMPACT ASTRONAUTS, AS THEY CAN BE EXPOSED TO HARSH ENVIRONMENT.

WE HELP CONDUCT REAL-TIME SPACE WEATHER ASSESSMENTS TO IMPROVE OUTCOMES. A BIG SOLAR STORM CAN CAUSE OUR ASTRONAUTS TO BECOME SICK AND OUR EQUIPMENT TO BE DESTROYED INCLUDING OUR SPACECRAFT. THIS MORNING WHEN WE HAD THE SOLAR STORM, WE WERE LUCKY THAT OUR ASTRONAUTS WEREN'T IN SPACE, OTHERWISE THEY COULD'VE BEEN HURT."





**"NOW WE HAVE REACHED THE LAST
PART OF THE TOUR. WE WILL FLY
DOWN TO OUR HEADQUARTERS SO YOU
CAN SEE WHERE ALL THE ACTION
HAPPENS."**



“Here at the headquarters, we have managers and government officials who work together to make sure everything works well. During situations like today with the power outage, they make important decisions to keep everyone safe.”

"This is your pilot speaking. Please take a look out the window. We have the northern lights dancing for us because of the solar flare. This light show is one of the creations of the solar flares that we can see with our own eyes."



"BEST DAY.
EVER!!!"



WOW!

"WHAT A
WONDERFUL
WAY TO END
THE TRIP."





"MOM! I HAD SUCH A COOL DAY TODAY. I WANT TO TELL YOU EVERYTHING I LEARNED ABOUT THE SUN AND SPACE WEATHER. I WANT TO BE AN ASTRONAUT WHEN I GROW UP."

"LET'S GET YOU INTO BED FIRST SO YOU CAN REST. YOU'VE HAD A LONG DAY. I CAN'T WAIT TO HEAR ALL ABOUT IT TOMORROW."