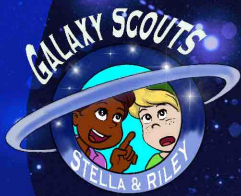


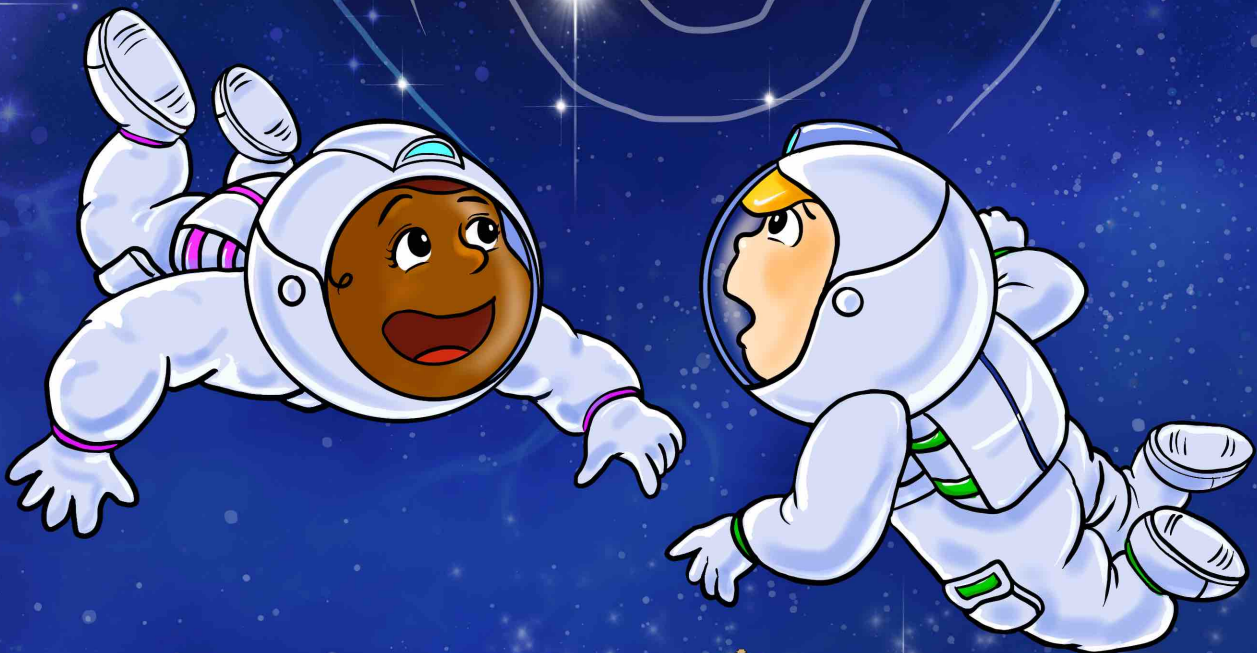
GALAXY SCOUTS



Space-Ventures With Stella and Riley



Book 1 The Secret of a Bok Globule



PUBLISHED BY UW-MADISON
ASTRONOMY DEPARTMENT
SNEZANA STANIMIROVIC



ART BY
JAN LIN

Our Mission:

Galaxy Scouts Space-Ventures with Stella and Riley is a comic book series designed to get kids excited about astronomy and sciences in general.

The comic book series strives to improve societal literacy of STEM (Science, Technology, Engineering, Math) disciplines, and share the excitement and importance of STEM discoveries with younger generations. The comic books feature space adventures of Stella and Riley, and involve cutting-edge STEM topics to engage youth in science learning and discovery.

Who is the Galaxy Scouts Comic Book Series for?

The comic book series is mainly for youth with 4th to 8th grade reading level, or who are about 9 to 13 years old. Still, we welcome readers of all ages to explore these pages!

Youth educators, including science teachers, librarians, and science museum program managers, may find the material useful for individual or groups work with youth.

Acknowledgements:

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The story for this volume was developed by Robert Tetzner, Jan Lin and Snežana Stanimirović, in close collaboration with the rest of the Galaxy Scouts team: Rebecca Cors, Amy Gaeta, and Kay Kriewald.

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To access the online version of the comic books and the activity books, please go to: <https://galaxyscouts.wisc.edu/>

If you have any comments or questions, please contact UW Madison, Astronomy Professor Snežana Stanimirović, sstanimi@astro.wisc.edu



GRIFFITH OBSERVATORY, LOS ANGELES, CA. THE OBSERVATORY WAS BUILT IN 1935 BY GRIFFITH J. GRIFFITH SO THAT EVERYONE COULD HAVE THE CHANCE TO SEE THE STARS.

IT IS HERE, DURING THE FOUCAULT ELEMENTARY 4TH GRADE SLEEPOVER, THAT OUR STELLA STORY BEGINS...

1, 2, 3!
EYES ON ME! NOW!
CALEB, PUT THAT DOWN!

**WHO THREW THAT
AT THE BIRDS?**

DON'T MAKE ME
CALL YOUR MOTHER!

I KNOW IT'S LATE AND
YOU ARE TIRED, BUT...

YOU DON'T WANT
TO MISS THIS!

TOLD YOU THEY
WEREN'T THAT FAST.

I'LL GIVE YOU THE
WHOLE PACK FOR \$2.
FOR AN EXTRA \$0.50
I'LL THROW IN THE
PIXIE STICKS!

THAT'S PRETTY
STEEP FOR A
MIDNIGHT SNACK!

OK ALL, LINE UP.
WE GOT TO SEE
THE SUN THROUGH
THE COELOSTAT
AND NOW THAT IT'S
DARK WE CAN SEE
THE STARS.

DAVE

I CAN'T WAIT TO SEE SATURN. I'VE ALWAYS DREAMED OF THIS, AND WE HAVE THE WHOLE NIGHT!

EVERYONE LINE UP HERE, WE DON'T HAVE MUCH TIME!

WHAT WAS THAT??? WHY IS HE ALWAYS DOING THINGS LIKE THAT TO ME? RILEY!!!!

THIS IS THE FAMOUS ZEISS TELESCOPE. IT IS PRECISELY ALIGNED WITH THE EARTH'S AXIS, SO WE CAN ALWAYS SEE WHAT WE WANT FOR AS LONG AS WE WANT.

AND BECAUSE OF THE RIGHT WEIGHTS AND THE LAWS OF PHYSICS, I CAN EVEN MOVE THIS 9,000 LB TELESCOPE WITH ONE HAND.

'SCUSE ME, I'LL JUST SLIP IN RIGHT HERE. WOULDN'T WANT TO MISS THIS. NICE RUBBER BAND IN YOUR HAIR, STELLAR. OH, BY THE WAY, YOU KNOW YOU'RE LAST IN LINE, RIGHT?

RILEY!!! IF I MISS SEEING SATURN, IT IS ALL YOUR FAULT! YOU DON'T EVEN LIKE THIS STUFF!!!

YOU ALL READY? TONIGHT WE ARE GOING TO SEE THE RINGS OF SATURN, ONE OF ONLY FIVE PLANETS VISIBLE TO THE NAKED EYE.

WE HAD TO WAIT TILL VERY CLOSE TO YOUR BED TIME SO IT IS DARK ENOUGH TO SEE THIS PLANET. WE ONLY HAVE A SHORT TIME TO LOOK BEFORE YOU ALL NEED TO BE IN BED.

20 MINUTES LATER

THANK YOU SO MUCH FOR LETTING US LOOK, DAVE. NOW, TIME TO GET YOU SETTLED IN FOR THE NIGHT, KIDS.

MS. JAAX, MS. JAAX!!! I DIDN'T HAVE A CHANCE TO LOOK! I HAVE TO LOOK! SATURN IS MY FAVORITE PLANET!

STELLA, DEAR, I'M SO SORRY, BUT WE DON'T HAVE ANYMORE TIME TONIGHT. DAVE NEEDS TO HEAD HOME AND YOU NEED TO HEAD TO BED.

BUT— BUT— BUT I WANT TO STAY UP TO LEARN. ISN'T THAT A GOOD THING?

IT CERTAINLY IS A GOOD THING AND I'LL MAKE SURE YOU ARE FIRST IN LINE NEXT TIME.

IN BED, NOW!

BUT I WANT TO SEE SATURN!!!

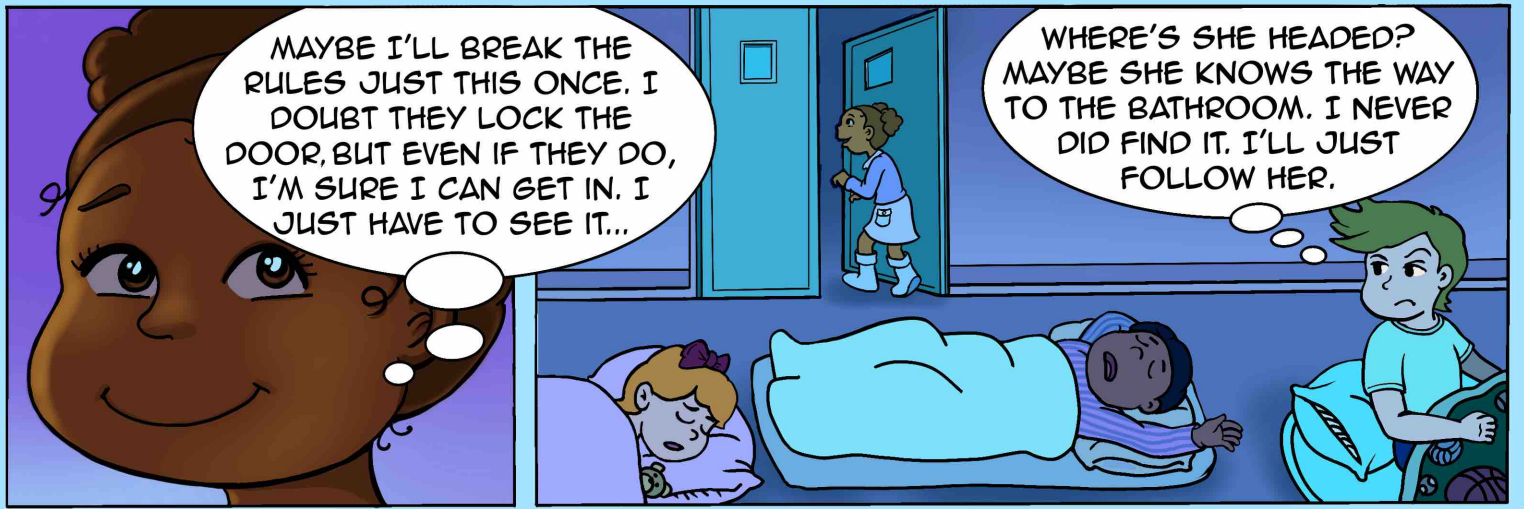
BURRRRP

SNOOOOR

I'M IN SCHOOL; SHOULDN'T I BE ALLOWED TO LEARN??? STUPID RILEY.

RILEY DOESN'T EVEN LIKE SCIENCE AND HE GOT A TURN.

EVERYONE'S ASLEEP. HUH... I WONDER IF I COULD GET AWAY WITH IT?



MAYBE I'LL BREAK THE RULES JUST THIS ONCE. I DOUBT THEY LOCK THE DOOR, BUT EVEN IF THEY DO, I'M SURE I CAN GET IN. I JUST HAVE TO SEE IT...

WHERE'S SHE HEADED? MAYBE SHE KNOWS THE WAY TO THE BATHROOM. I NEVER DID FIND IT. I'LL JUST FOLLOW HER.

I'M PRETTY SURE IT'S THIS WAY. I JUST CAN'T MISS SEEING THE PLANETS THROUGH A 12" LENS. NO ONE WILL NOTICE THIS LATE AT NIGHT...

WAIT, "STELLAR" ISN'T GOING TOWARDS THE BATHROOM, SHE'S HEADED TOWARDS THE TELESCOPE! I DON'T KNOW IF I'M IMPRESSED AT HER NINJA SKILLS OR SAD SHE'S USING THEM FOR SCHOOL WORK.

THERE IT IS! I CAN LOOK AS LONG AS I WANT! EVEN RILEY CAN'T RUIN THIS.

IT'S SO BIG! OUR TOUR GUIDE SAID IT'S EASY TO MOVE BUT IT SHOULD ALREADY BE FOCUSED ON SATURN.

THIS IS SO AWESOME!!!

I KNEW SHE'D COME.

WOW

STELLAR! I KNEW YOU WERE A NERD, BUT DIDN'T KNOW YOU WERE THIS MUCH OF ONE.

WHAT ARE YOU DOING HERE? WHY CAN'T YOU JUST LEAVE ME ALONE?

I WAS JUST LOOKING FOR THE BATHROOM, BUT THIS LOOKS COOL, TOO. MOVE OUT OF THE WAY! LET ME HAVE A LOOK.

GET OUT OF THE WAY! THIS WAS SUPPOSED TO BE MY TIME ON THE TELESCOPE. DON'T BE A TELESCOPE HOG.

I COULD LOOK AT THIS ALL NIGHT!

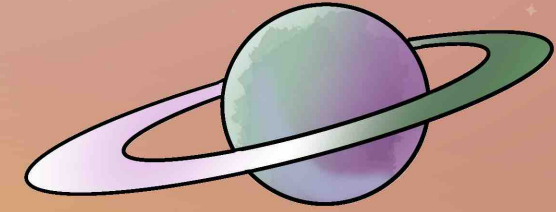
IT'S MY TURN!

NO WAY! I JUST STARTED.

YOU DIDN'T EVEN MEAN TO BE HERE. I WANT TO LOOK!!
MOVE!

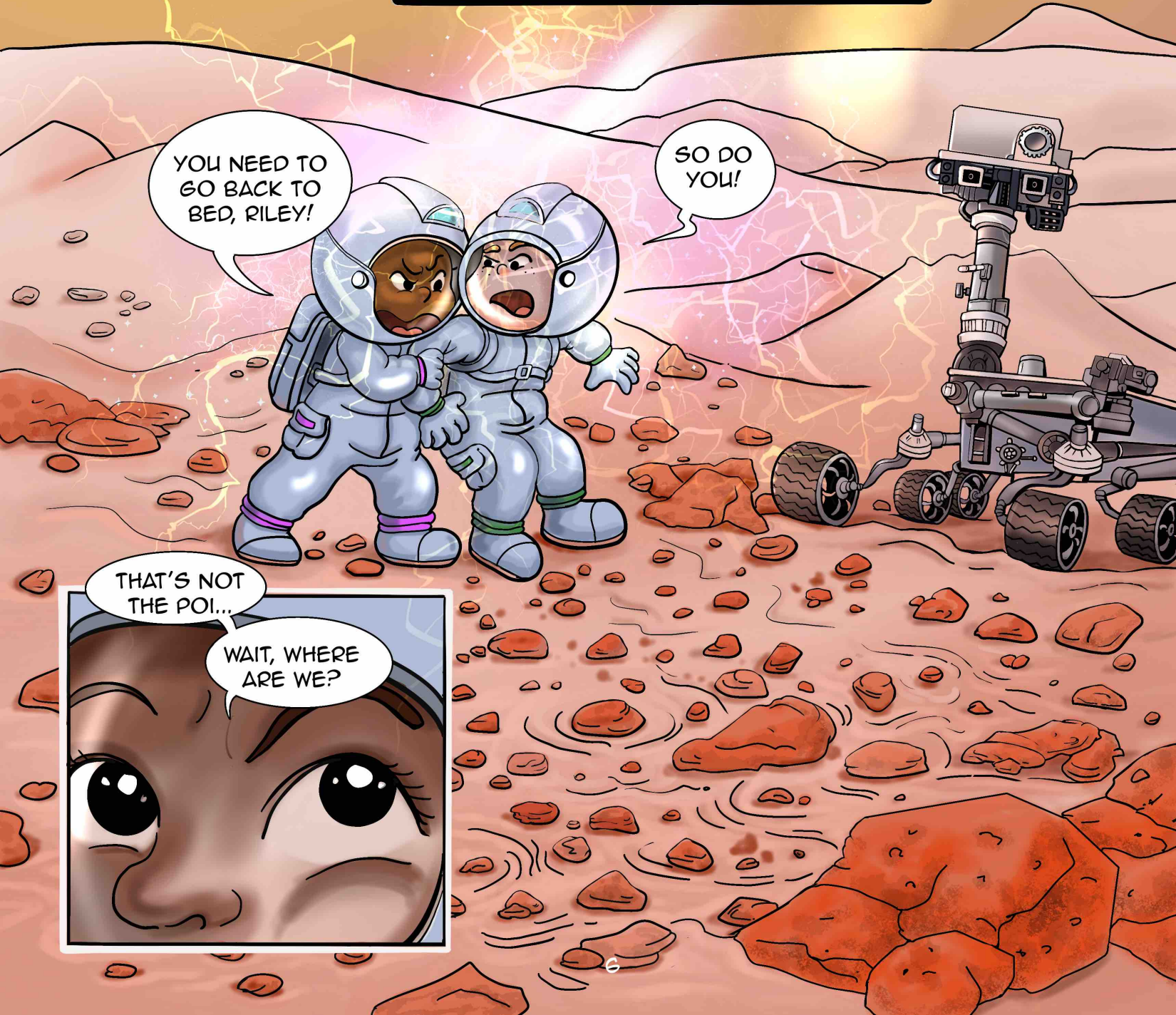
AND HERE WE GO.

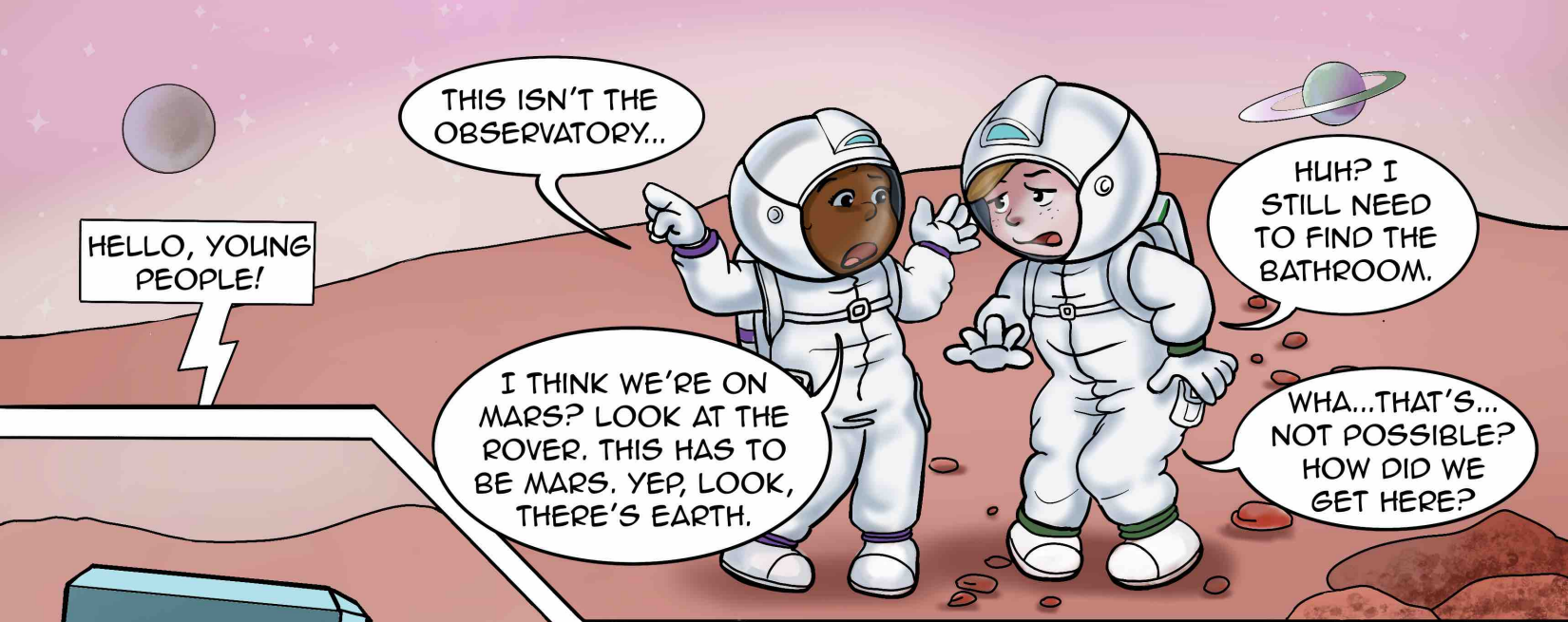
Destination
VENUS
⌚ **MARS**
TRANSMIT



YOU NEED TO GO BACK TO BED, RILEY!

SO DO YOU!





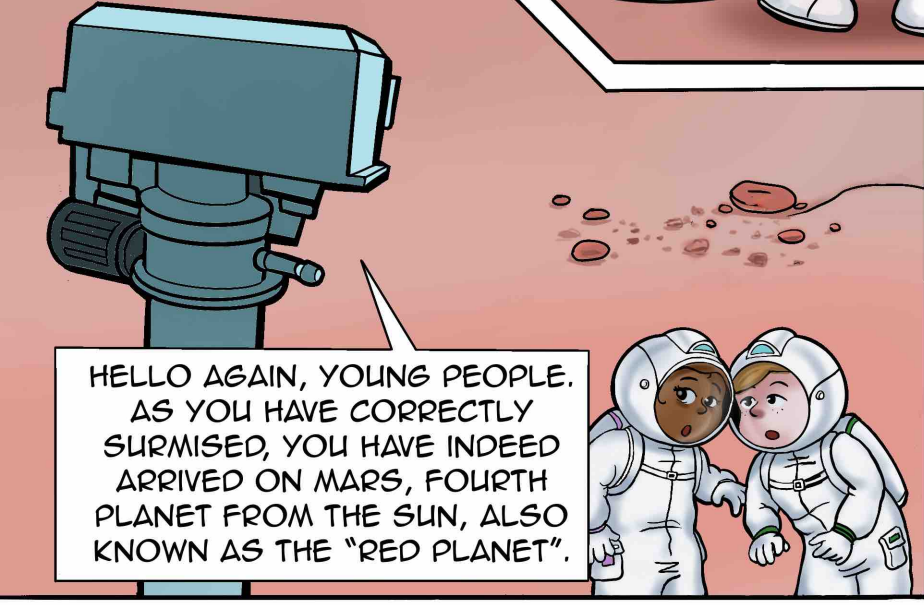
HELLO, YOUNG PEOPLE!

THIS ISN'T THE OBSERVATORY...

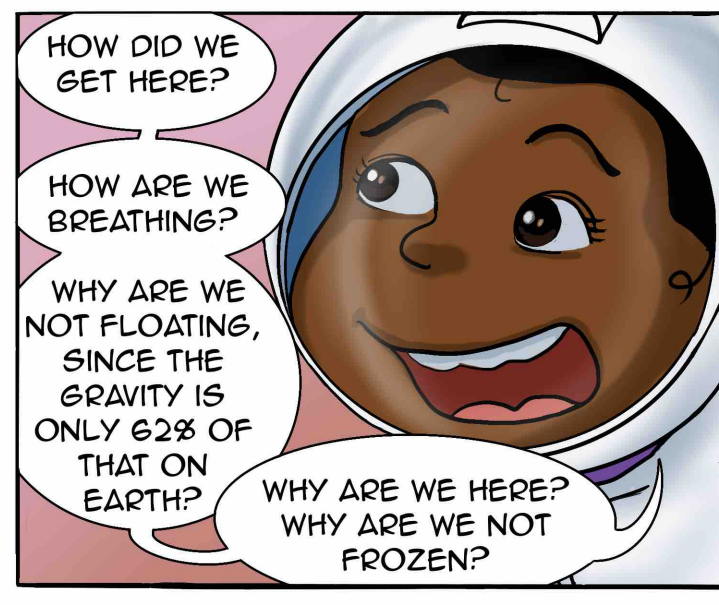
HUH? I STILL NEED TO FIND THE BATHROOM.

I THINK WE'RE ON MARS? LOOK AT THE ROVER. THIS HAS TO BE MARS. YEP, LOOK, THERE'S EARTH.

WHA...THAT'S... NOT POSSIBLE? HOW DID WE GET HERE?



HELLO AGAIN, YOUNG PEOPLE. AS YOU HAVE CORRECTLY SURMISED, YOU HAVE INDEED ARRIVED ON MARS, FOURTH PLANET FROM THE SUN, ALSO KNOWN AS THE "RED PLANET".

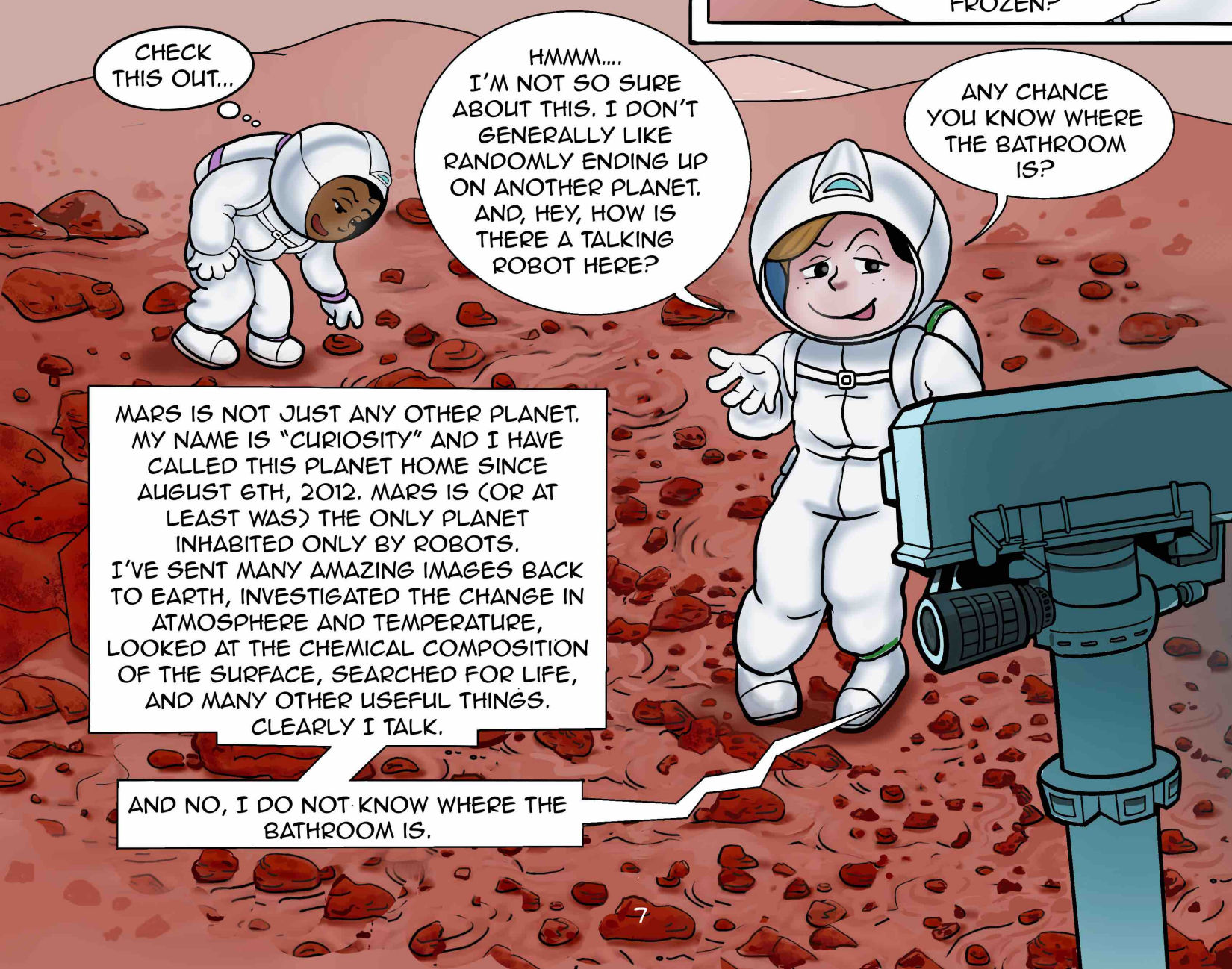


HOW DID WE GET HERE?

HOW ARE WE BREATHING?

WHY ARE WE NOT FLOATING, SINCE THE GRAVITY IS ONLY 62% OF THAT ON EARTH?

WHY ARE WE HERE? WHY ARE WE NOT FROZEN?



CHECK THIS OUT...

HMMM... I'M NOT SO SURE ABOUT THIS. I DON'T GENERALLY LIKE RANDOMLY ENDING UP ON ANOTHER PLANET. AND, HEY, HOW IS THERE A TALKING ROBOT HERE?

ANY CHANCE YOU KNOW WHERE THE BATHROOM IS?

MARS IS NOT JUST ANY OTHER PLANET. MY NAME IS "CURIOSITY" AND I HAVE CALLED THIS PLANET HOME SINCE AUGUST 6TH, 2012. MARS IS (OR AT LEAST WAS) THE ONLY PLANET INHABITED ONLY BY ROBOTS. I'VE SENT MANY AMAZING IMAGES BACK TO EARTH, INVESTIGATED THE CHANGE IN ATMOSPHERE AND TEMPERATURE, LOOKED AT THE CHEMICAL COMPOSITION OF THE SURFACE, SEARCHED FOR LIFE, AND MANY OTHER USEFUL THINGS. CLEARLY I TALK.

AND NO, I DO NOT KNOW WHERE THE BATHROOM IS.

ARE YOU ENJOYING YOUR TIME ON MY PLANET?

AS FOR WHY YOU ARE HERE, YOU'LL HAVE TO ASK MR. HALLEY.

LOOKS LIKE YOU'LL HAVE A CHANCE TO ASK HIM RIGHT NOW. BYE, YOUNG PEOPLE!

WELL, IT'S WEIRD, BUT YES. I'VE READ ABOUT ALL THESE THINGS BUT IT'S WAY BETTER TO EXPERIENCE THEM.

WHO'S MR. HALLEY???

THEY CERTAINLY WERE AN ENJOYABLE COUPLE OF CHILDREN. WELL, THE GIRL WAS. I DON'T KNOW ABOUT THE BOY. I HOPE MR. HALLEY DOESN'T PUT THEM THROUGH TOO MUCH!

THWP

THE GIRL SEEMS EAGER, THE BOY... WILL NEED GOOD WORK. MR. HALLEY

AHH!

THAT WAS PRETTY GREAT!

WHERE DID THAT ROBOT GO?

WELCOME BACK YOU TWO. WHAT DID YOU THINK?

WHO ARE YOU? WHAT WAS THAT?

WHY DID YOU DO THAT TO US?! I DON'T LIKE LEAVING EARTH WITHOUT BEING ASKED FIRST! AND WHERE IS THE BATHROOM? I REALLY NEED IT!

DON'T BE MAD. I JUST WANTED TO GIVE YOU SCIENCE FANS A FUN LITTLE TRIP. DID YOU HAVE FUN? I'M MR. HALLEY. I GUESS YOU COULD CALL ME AN INTERGALACTIC TOUR GUIDE OF SORTS. I WANTED TO SHOW YOU WHAT I CAN DO AND SEE IF YOU WERE INTERESTED IN LEARNING MORE.

BATHROOM IS OUT THAT DOOR TO THE LEFT, KID.



THANK YOU!! THAT WAS SO MUCH FUN. I'VE HEARD ALL ABOUT MARS, BUT IT WAS GREAT TO ACTUALLY GET TO SEE THE RED SAND AND MEET CURIOSITY, AND REALLY GET TO EXPERIENCE ALL THIS STUFF I'VE READ IN BOOKS. I HAD HEARD ABOUT HOW IRON OXIDE MAKES THE PLANET LOOK RED, BUT SEEING IT IN REAL LIFE WAS AMAZING.

THAT'S GREAT, KID. I KNEW AS SOON AS YOU SNUCK IN HERE THAT YOU'D LOVE IT. NOT MANY KIDS BREAK RULES JUST TO LEARN. YOU'RE ONE OF A KIND.



WHEN DO WE GET TO GO BACK??

I'M IN. I DON'T LIKE CLASSROOM SCIENCE, BUT I'M ON BOARD WITH THIS REAL-LIFE MARS STUFF.



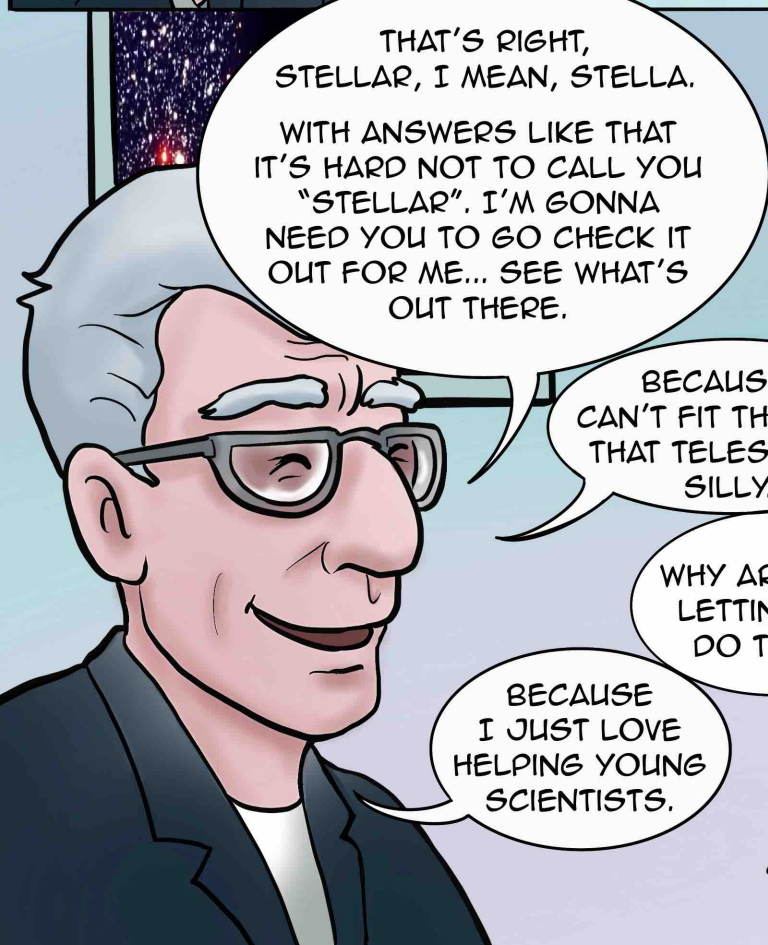
I HAVE FOUND THEM.



I'M GLAD I HAVE YOU BOTH ON BOARD. I HAVE A JOB FOR YOUNG ADVENTURERS LIKE YOURSELVES. WHAT WE HAVE HERE IS CALLED A "BOK GLOBULE".

BUT I DON'T SEE ANYTHING! CERTAINLY NOT THIS BOK CHOY BLOB THING.

IT'S A BOK GLOBULE. IT'S SUPPOSED TO LOOK LIKE THAT. SOMETIMES IT'S CALLED A "HOLE IN HEAVEN", RIGHT, MR. HALLEY?



THAT'S RIGHT, STELLAR, I MEAN, STELLA. WITH ANSWERS LIKE THAT IT'S HARD NOT TO CALL YOU "STELLAR". I'M GONNA NEED YOU TO GO CHECK IT OUT FOR ME... SEE WHAT'S OUT THERE.

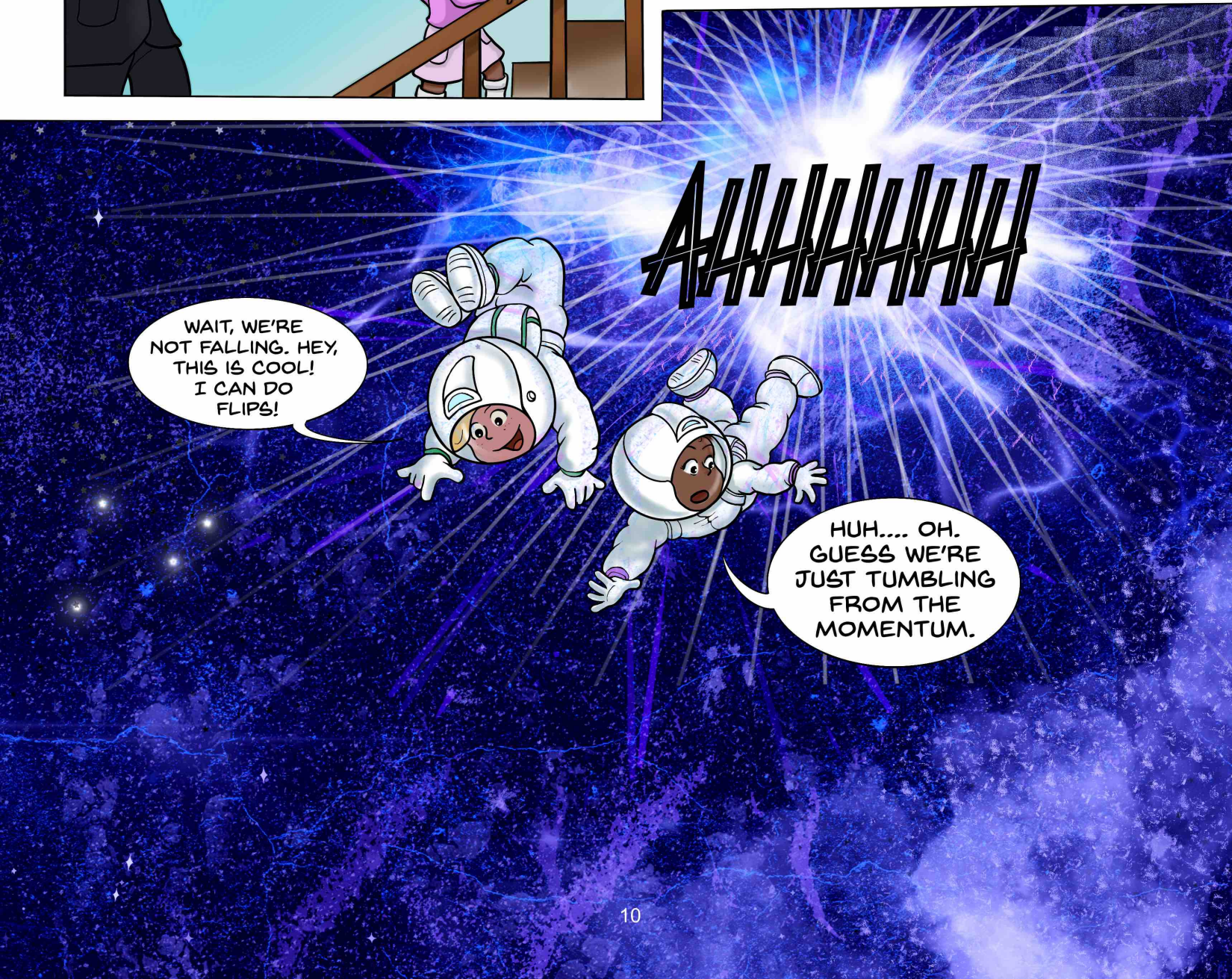
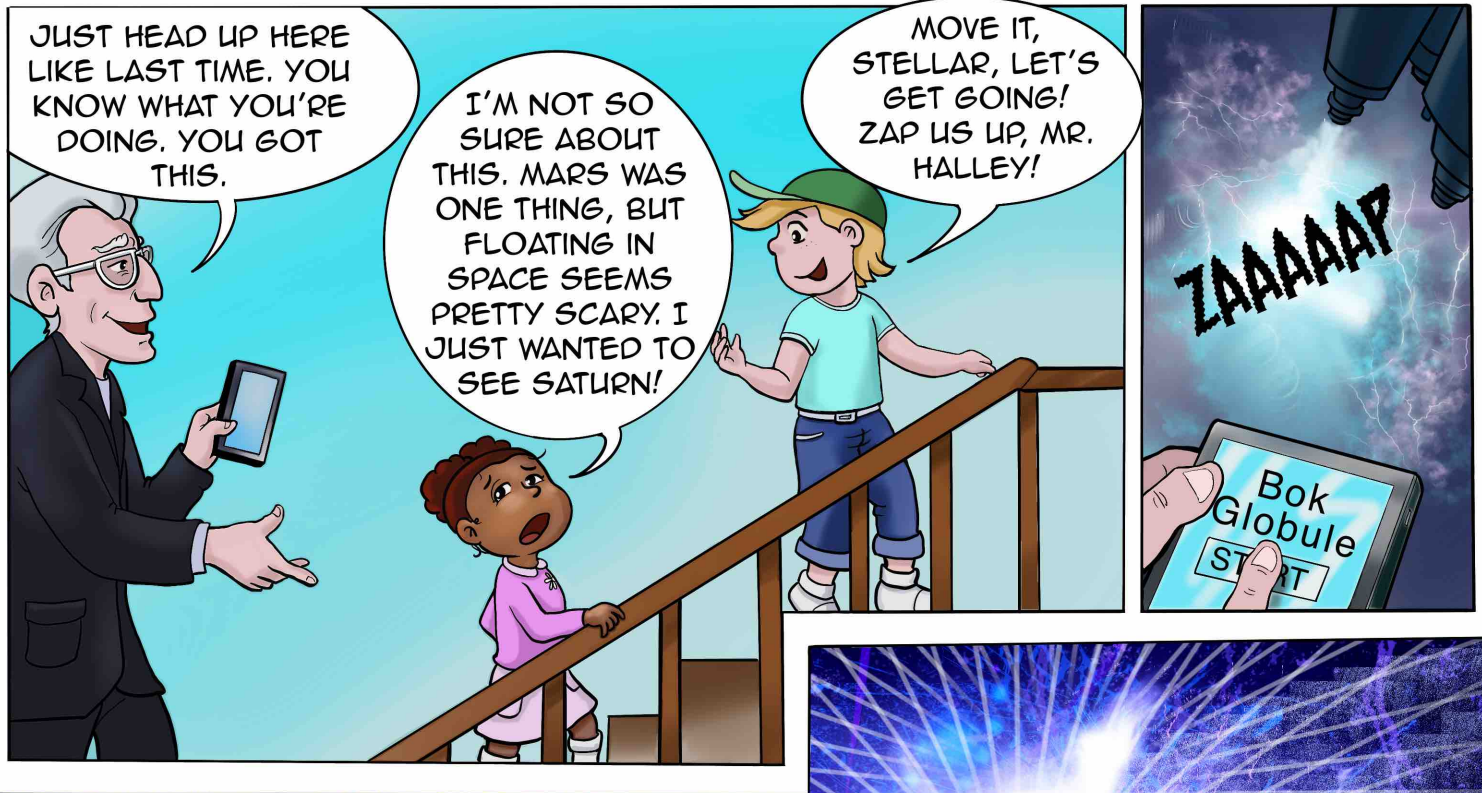
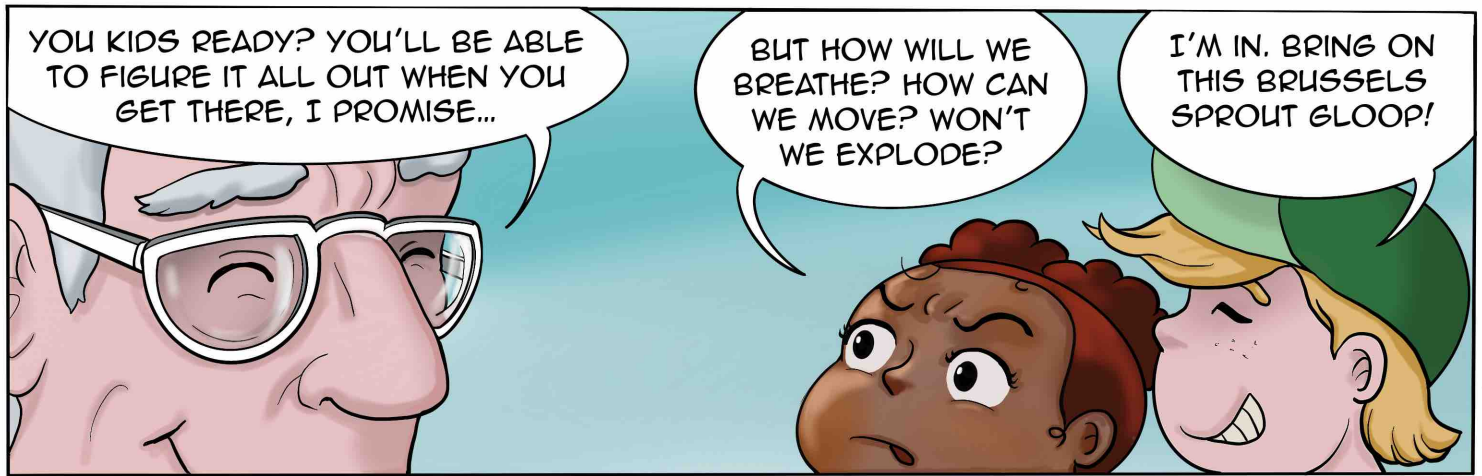
WHY CAN'T YOU JUST GO YOURSELF?


BECAUSE I CAN'T FIT THROUGH THAT TELESCOPE, SILLY.

WHY ARE YOU LETTING US DO THIS?

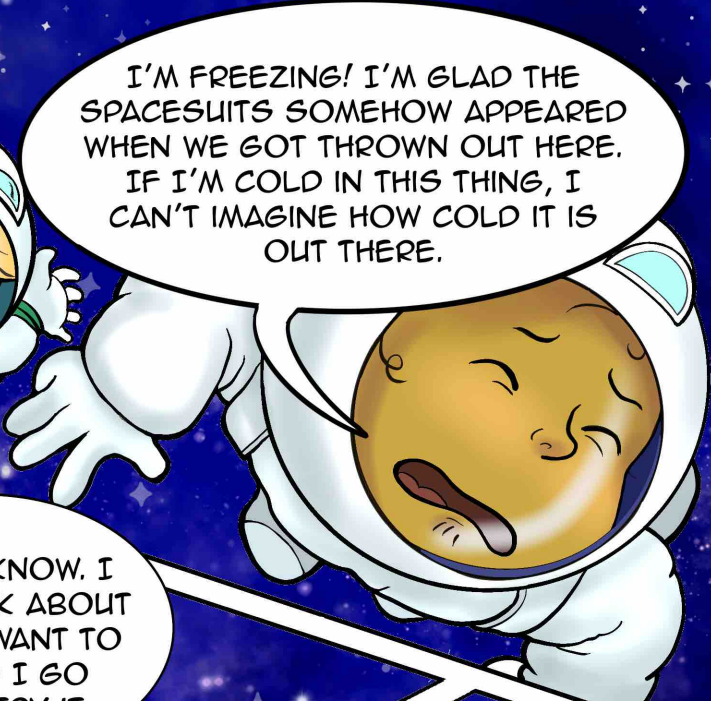
BECAUSE I JUST LOVE HELPING YOUNG SCIENTISTS.



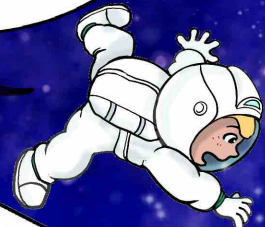





WHOA, I CAN'T SEE ANYTHING. THERE IS SO MUCH DUST!



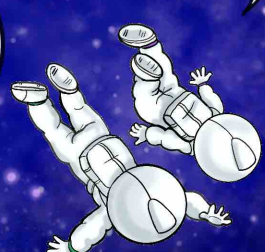
I'M FREEZING! I'M GLAD THE SPACESUITS SOMEHOW APPEARED WHEN WE GOT THROWN OUT HERE. IF I'M COLD IN THIS THING, I CAN'T IMAGINE HOW COLD IT IS OUT THERE.



WAIT, HOW ARE YOU MOVING? YOU CAN'T EVEN WALK WITHOUT TRIPPING OVER YOUR OWN FEET!



I DON'T KNOW. I JUST THINK ABOUT WHERE I WANT TO GO AND I GO THERE. TRY IT.



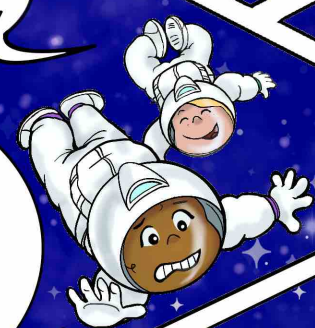
WHY IS MY VOICE SO HIGH? WE HAVE OXYGEN IN THESE SUITS OR WE'D BE DEAD.



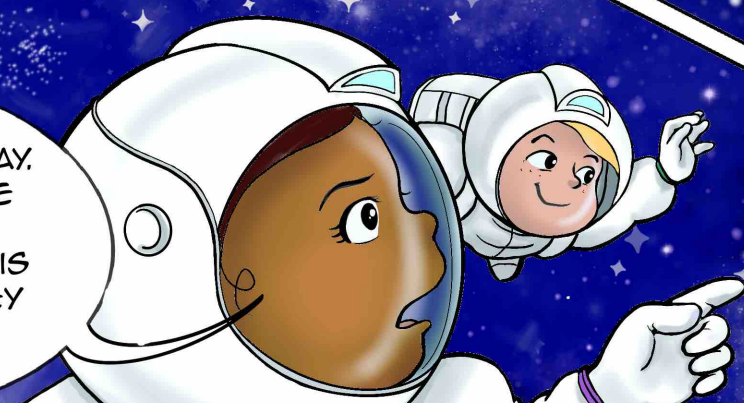
WHO CARES WHY... "DING DONG THE WITCH IS DEAD..."



NO IDEA. "WE'RE OFF TO SEE THE WIZARD! THE WONDERFUL WIZARD OF OZ!"



MAYBE A REALLY TINY LEAK? COULDN'T BE THAT BIG OR WE'D BE DEAD. MAYBE THAT'S WHY I'M COLD, TOO.



LET'S HEAD THIS WAY. IT LOOKS LIKE THE DUST IS GETTING THICKER. MAYBE THIS IS WHAT MR. HALLEY WANTED US TO SEE?

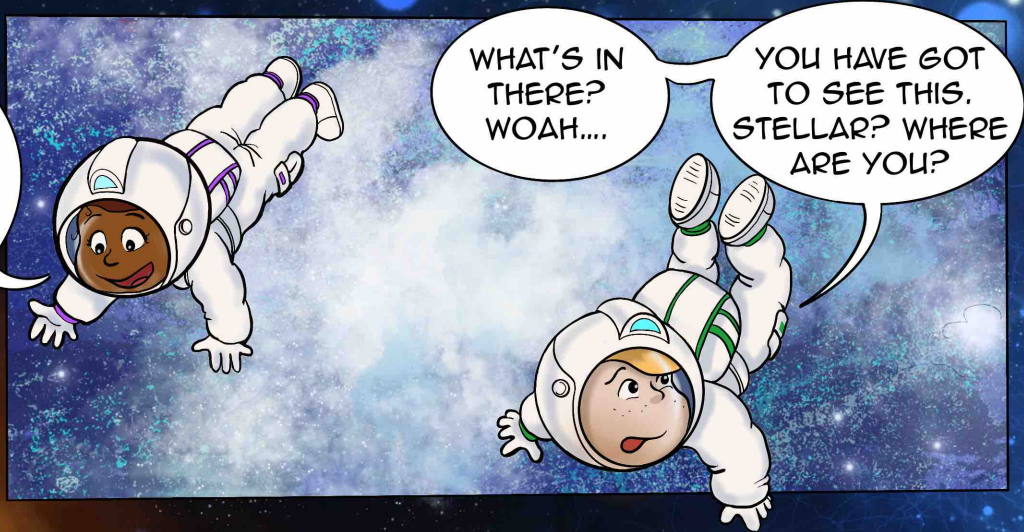


WHAT IS ALL OF THIS DUST? IT JUST KEEPS GETTING THICKER AND THICKER.



NEVER MIND THAT! LOOK AT THAT...

THAT'S AMAZING!
IT'S LIKE A HUGE
SHELL OF DUST. IF A
CHICKEN COMES OUT
OF AN EGG SHELL,
WHAT COMES OUT OF
A DUST SHELL?



WHAT'S IN
THERE?
WOAH....

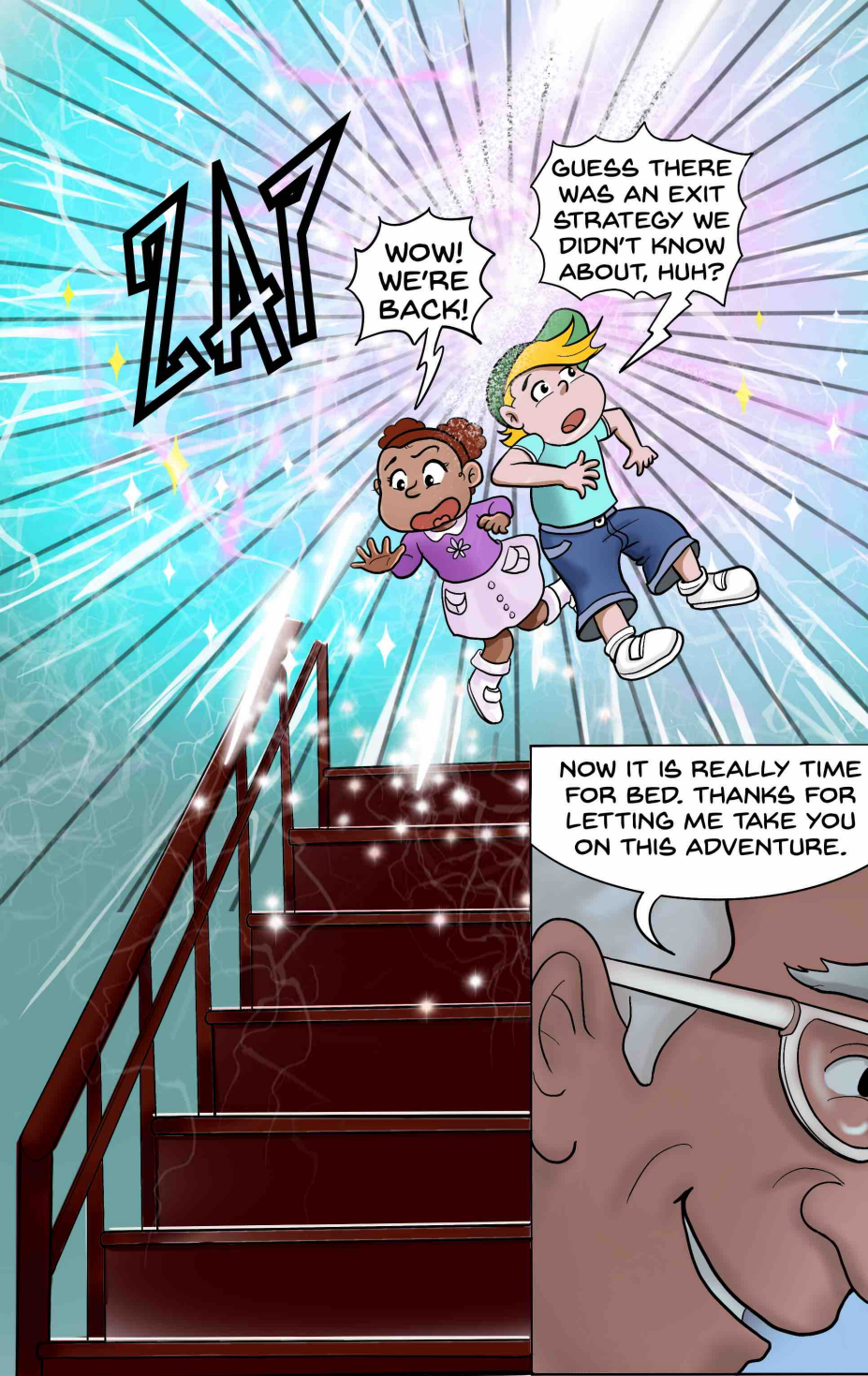
YOU HAVE GOT
TO SEE THIS.
STELLAR? WHERE
ARE YOU?

AHHHH! I'M GETTING
SUCKED INTO THE
SHELL! I HOPE IT'S NOT
GROWING DRAGONS OR
SOMETHING.

STARS! IT'S
GROWING STARS! IT'S
A STAR NURSERY. THIS
IS INCREDIBLE! A STAR
IS BORN HERE!

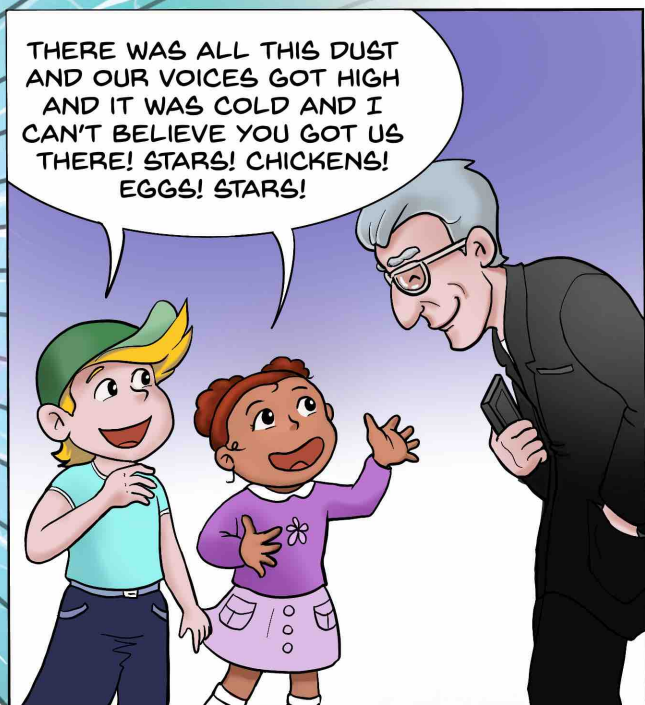
UM, THAT'S AWESOME,
BUT HOW ARE WE GOING
TO GET OUT OF HERE?
BETTER YET, HOW ARE WE
GOING TO GET HOME?!?!





WOW!
WE'RE
BACK!

GUESS THERE
WAS AN EXIT
STRATEGY WE
DIDN'T KNOW
ABOUT, HUH?



THERE WAS ALL THIS DUST
AND OUR VOICES GOT HIGH
AND IT WAS COLD AND I
CAN'T BELIEVE YOU GOT US
THERE! STARS! CHICKENS!
EGGS! STARS!



NOW IT IS REALLY TIME
FOR BED. THANKS FOR
LETTING ME TAKE YOU
ON THIS ADVENTURE.



AND I EVEN GOT A SOUVENIR
FROM OUR FIRST TRIP. NONE OF
THAT WAKING UP AND THINKING
IT WAS A DREAM. I DIDN'T
JUST SEE THE STARS, I
WAS IN THEM!



BREAKING RULES
DOESN'T COUNT IF
YOU'RE LEARNING. I'M
NOT SURE MS. JAAX
WOULD SEE IT THAT
WAY, THOUGH. AND
DON'T CALL ME
"STELLAR".

YA KNOW,
STELLAR, YOU
AREN'T SO BAD.
BREAKING
RULES WORKS
FOR YOU.

NAH, YOU'LL
ALWAYS BE
"STELLAR"
TO ME.



I'VE LEARNED
MORE ABOUT
WHAT'S HIDDEN IN THE
DARKNESS. WE ARE
GETTING CLOSER. THEY
ARE THE ONES WE'VE
BEEN LOOKING
FOR.



SEVERAL WEEKS LATER, STELLA AND RILEY ARE AT THE SCHOOL PLAYGROUND WHEN MR. HALLEY SUDDENLY APPEARS. HE EXPLAINS THAT THE UNIVERSE CONTAINS A LOT OF HIDDEN DARK MATTER THAT HE NEEDS THEM TO INVESTIGATE.

EQUIPPED WITH X-RAY SCANNERS, STELLA AND RILEY TRAVEL TO THE BULLET CLUSTER BUT HOW WILL THEY ESCAPE THE GRAVITATIONAL PULL OF DARK MATTER?

CONTINUED IN BOOK 2...

