

Science Adventures with the

**THUNDERBOLT
KIDS**



Sciences Adventures with the Thunderbolt Kids

Grade 5

by Siyavula and the Shuttleworth Foundation

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ATTRIBUTION

The Thunderbolt Kids characters and graphical stories in this book were developed as part of the Kususa project (www.kusasa.org), initiated and funded by the Shuttleworth Foundation (www.shuttleworthfoundation.org/). This project aimed to develop analytical and creative thinking in Grade 4,5 and 6 learners through the use of character role models, experiments, simple computer modelling and carefully-sequenced lesson plans. The characters and stories were used with the permission of the Shuttleworth Foundation in these science adventures and the related Grade 4-6 Natural Science and Technology workbooks.

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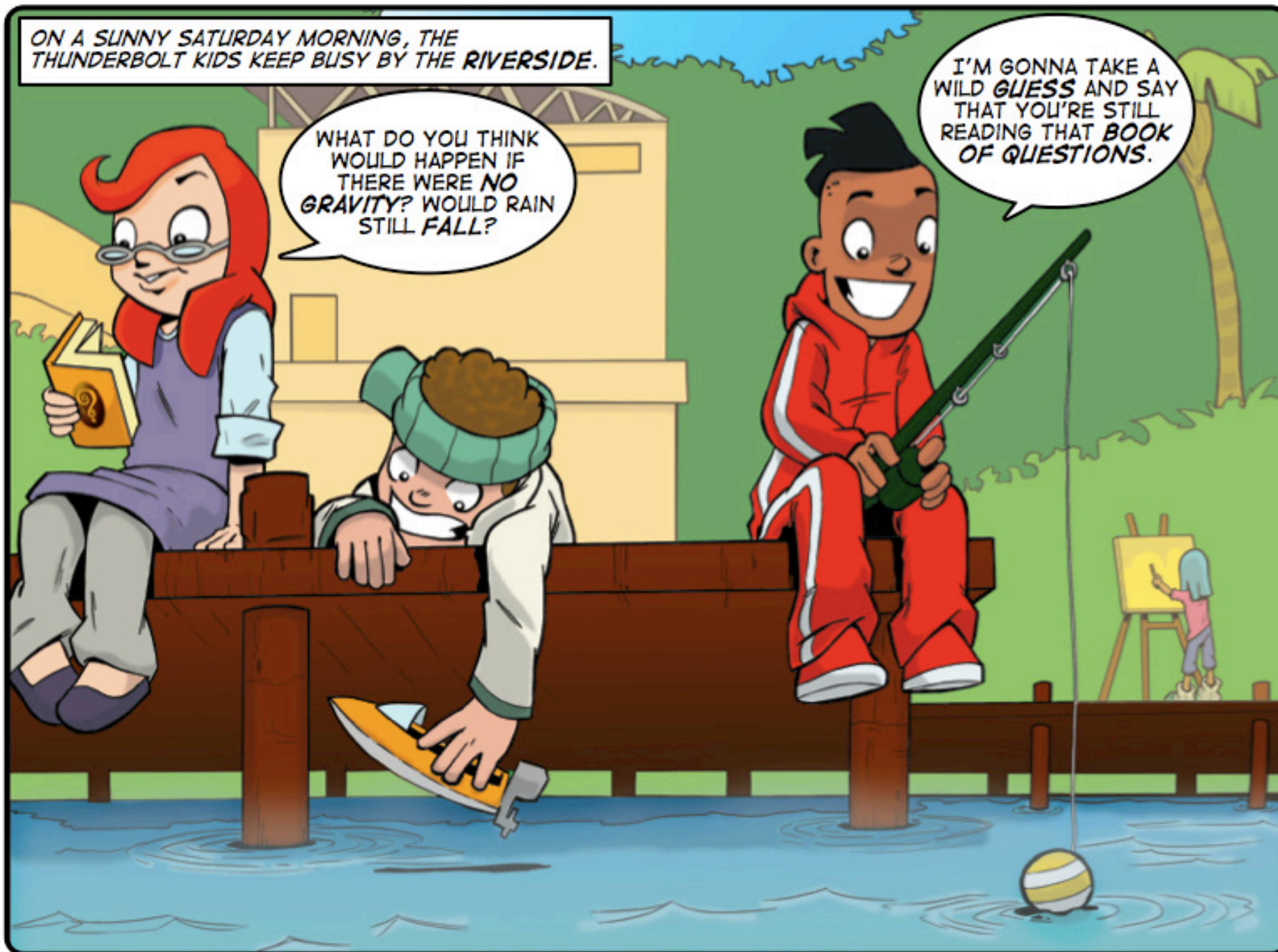
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1. FISH AND FROGS

ON A SUNNY SATURDAY MORNING, THE THUNDERBOLT KIDS KEEP BUSY BY THE RIVERSIDE.

WHAT DO YOU THINK WOULD HAPPEN IF THERE WERE **NO GRAVITY**? WOULD RAIN STILL **FALL**?

I'M GONNA TAKE A WILD **GUESS** AND SAY THAT YOU'RE STILL READING THAT **BOOK OF QUESTIONS**.

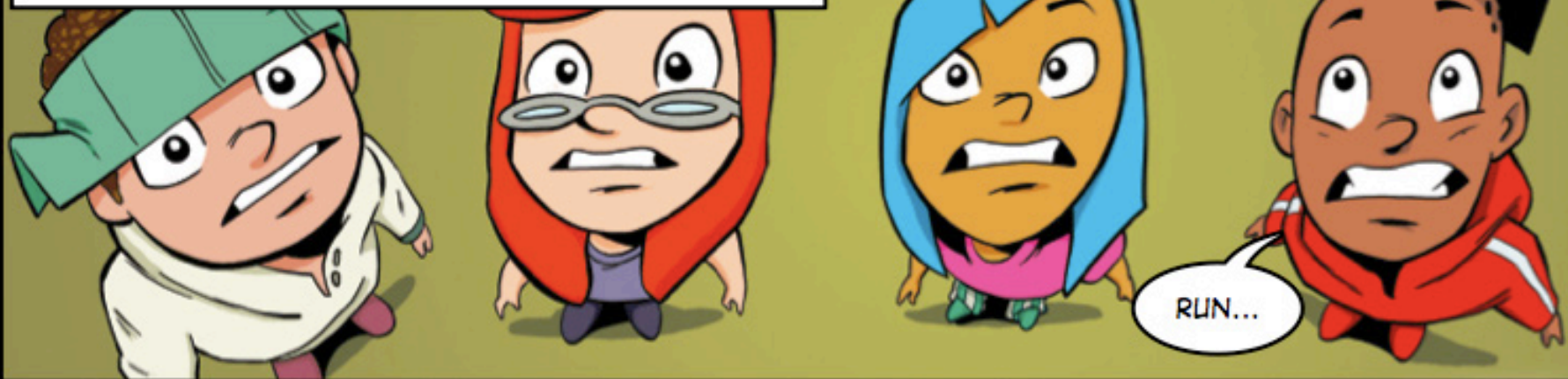




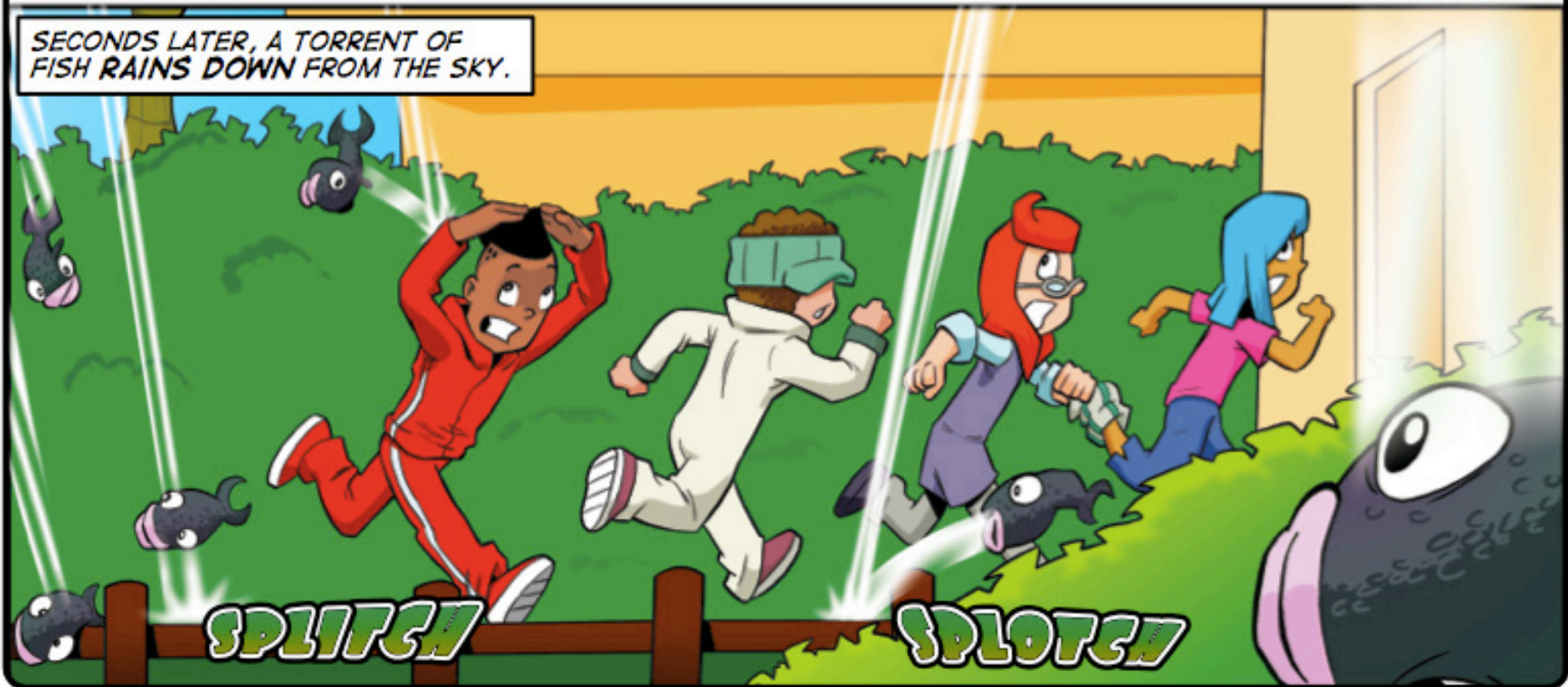




LOOKING UP TO THE SKY, THE THUNDERBOLT KIDS KNOW FOR SURE THAT JOJO DEFINITELY **DIDN'T** DO IT.



SECONDS LATER, A TORRENT OF FISH RAINS DOWN FROM THE SKY.







BUT NOT EVERYONE HAS SUCH COOL REACTIONS TO STRANGE EVENTS.

FISH ARE FALLING FROM THE **SKY**! DO YOU KNOW WHAT THIS **MEANS**?

?!

THE ALIENS ARE COMING!!!

LAZLO'S FREAKING OUT. WE HAVE TO FIGURE OUT **WHAT'S GOING ON** BEFORE EVERYONE ELSE DOES TOO!

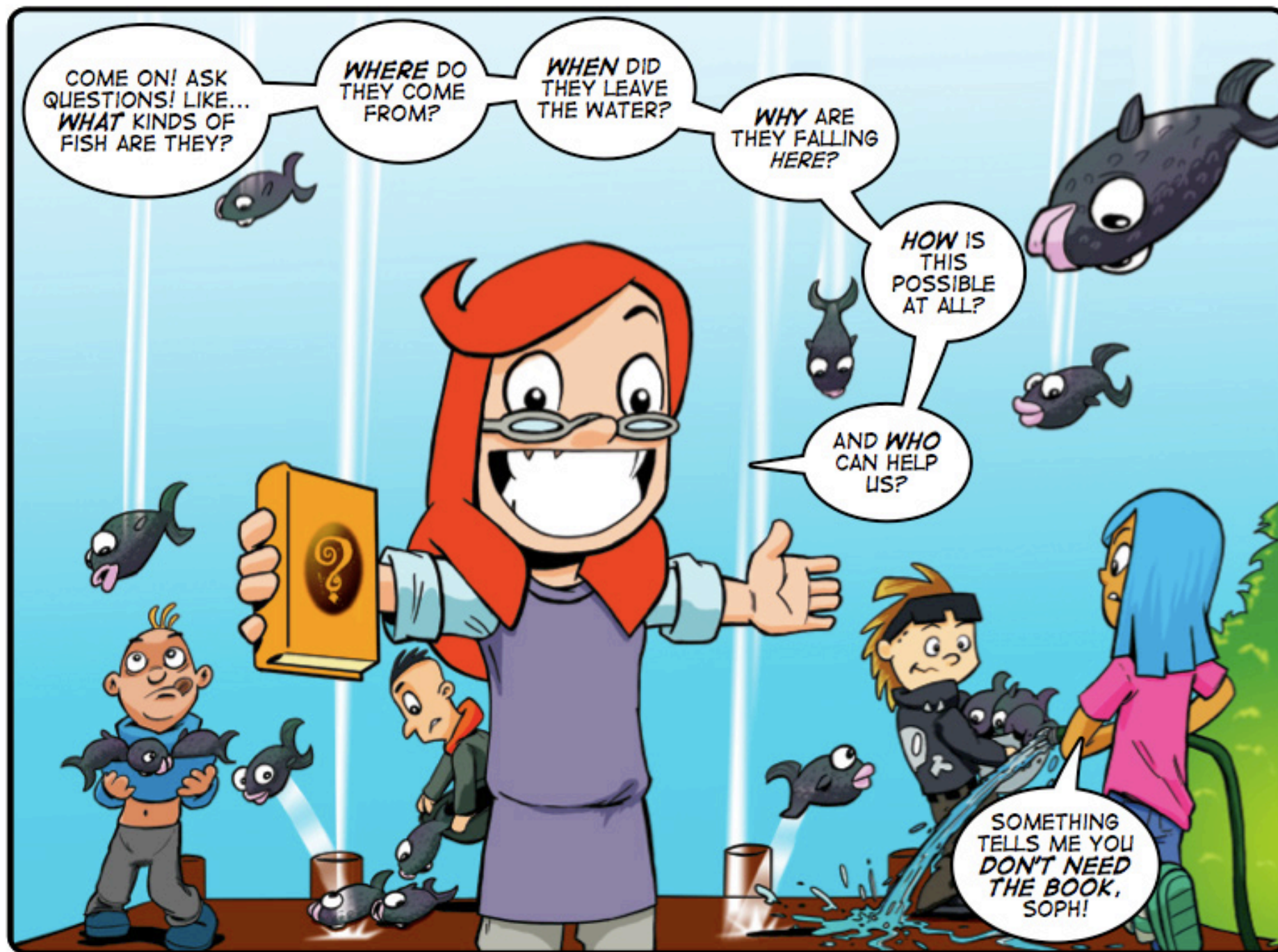


ACCORDING TO THIS BOOK, THERE ARE **SIX QUESTION WORDS** THAT WILL HELP YOU SOLVE ANY PROBLEM.

WHAT, WHERE, WHEN, WHY, HOW AND WHO.

I DON'T THINK ANY QUESTION IS GONNA HELP THAT GUY...

I HEAR THEM. I CAN HEAR THE ALIENS!



RIGHT AWAY JOJO KNOWS THE ANSWER TO TWO OF SOPHIE'S QUESTIONS AND HE REACHES FOR THE EMERGENCY TELEPHONE.

I KNOW THOSE FISH ARE FROM THE **RIVER MOUTH** NEAR THE SEA. THEY NEVER COME THIS FAR INLAND.



AND WE CAN ASK **DR ROBERTS** FROM THE ANIMAL SANCTUARY FOR HELP. HE KNOWS ALL ABOUT FISH AND WEATHER ON THE ISLAND.

**RING
RING**



THE CAUSE OF THE RAINING FISH IS MUCH MORE OBVIOUS FROM DR ROBERTS'S OFFICE AT THE SANCTUARY.

RAINING *FISH*?!
JEEPERS! THE
WATERSPOLIT MUST
HAVE SUCKED THEM
OUT OF THE RIVER
AND *DROPPED*
THEM UPRIVER!

SWOOSH



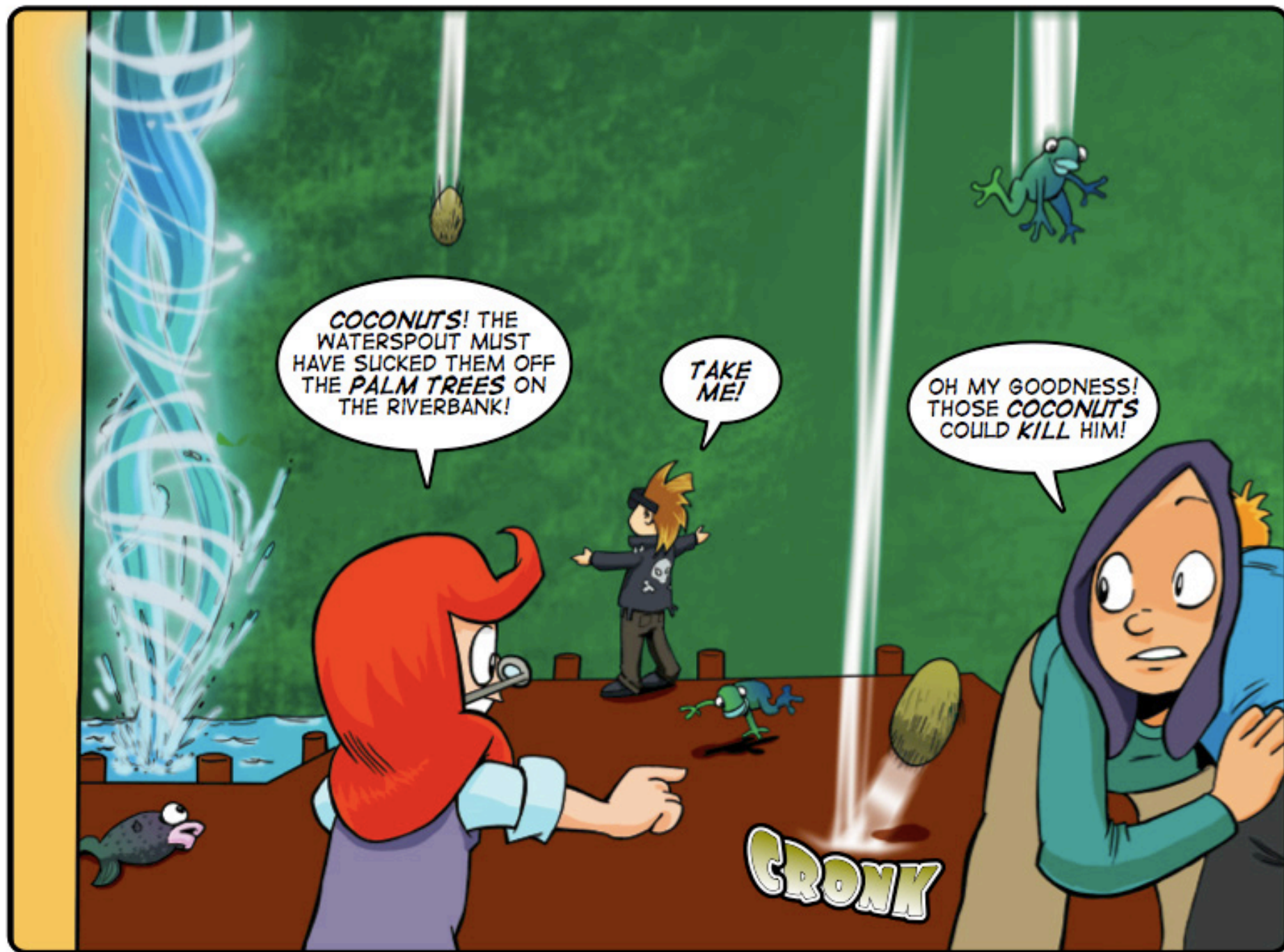


AS THE **WATERSPOLIT** NEARS THE SCHOOL, SO THE **DANGER** INCREASES FOR THE **THUNDERBOLT KIDS**.

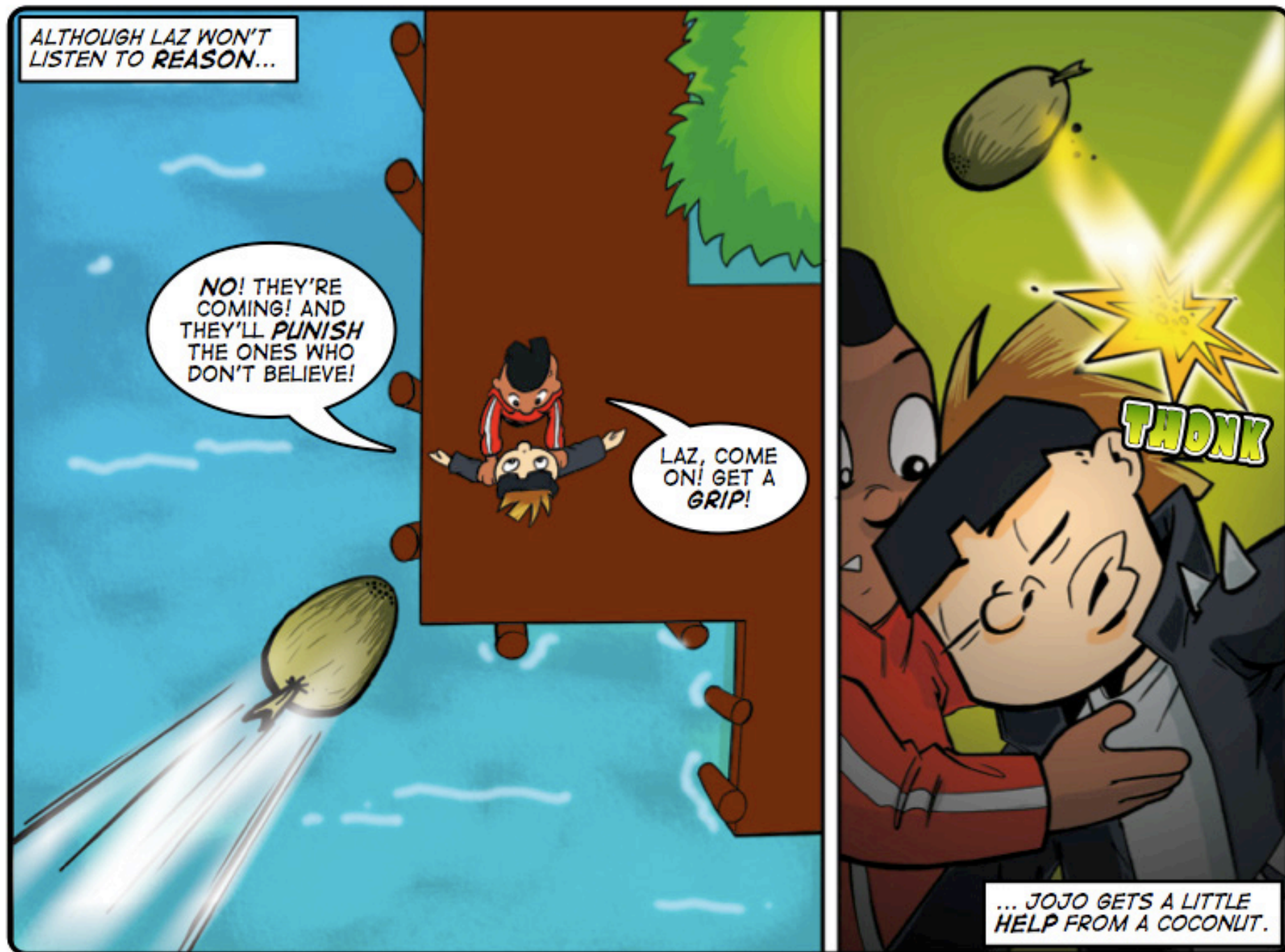


BUT PEOPLE STRUCK BY **MOMENTARY MADNESS** CAN BECOME VERY **STUBBORN**.





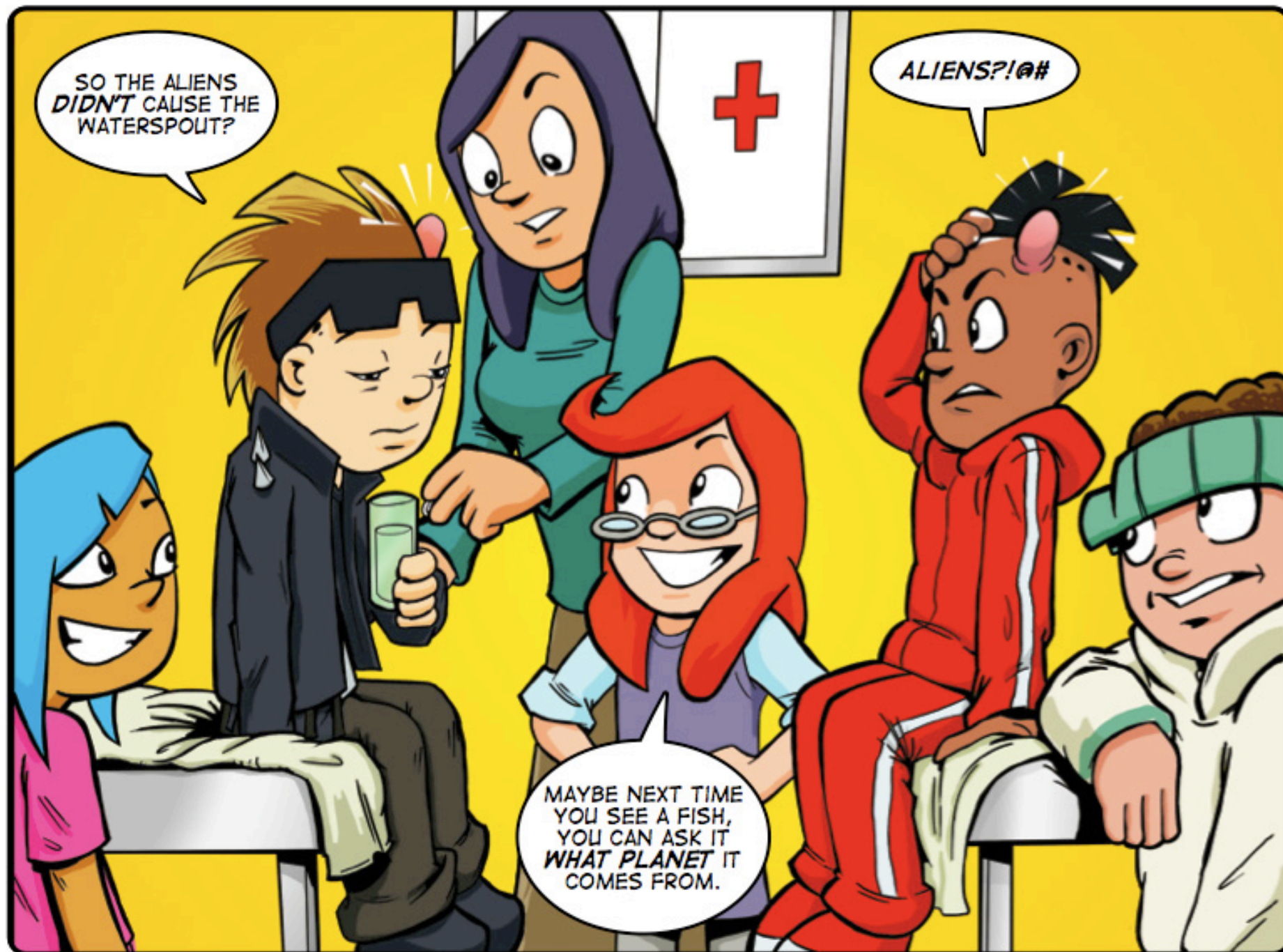




AND, LIKE AN OLYMPIC ATHLETE, HE DODGES THE PALM DATES AND COCONUTS ALL THE WAY BACK TO THE SCHOOL.



WELL... ALMOST ALL THE WAY.

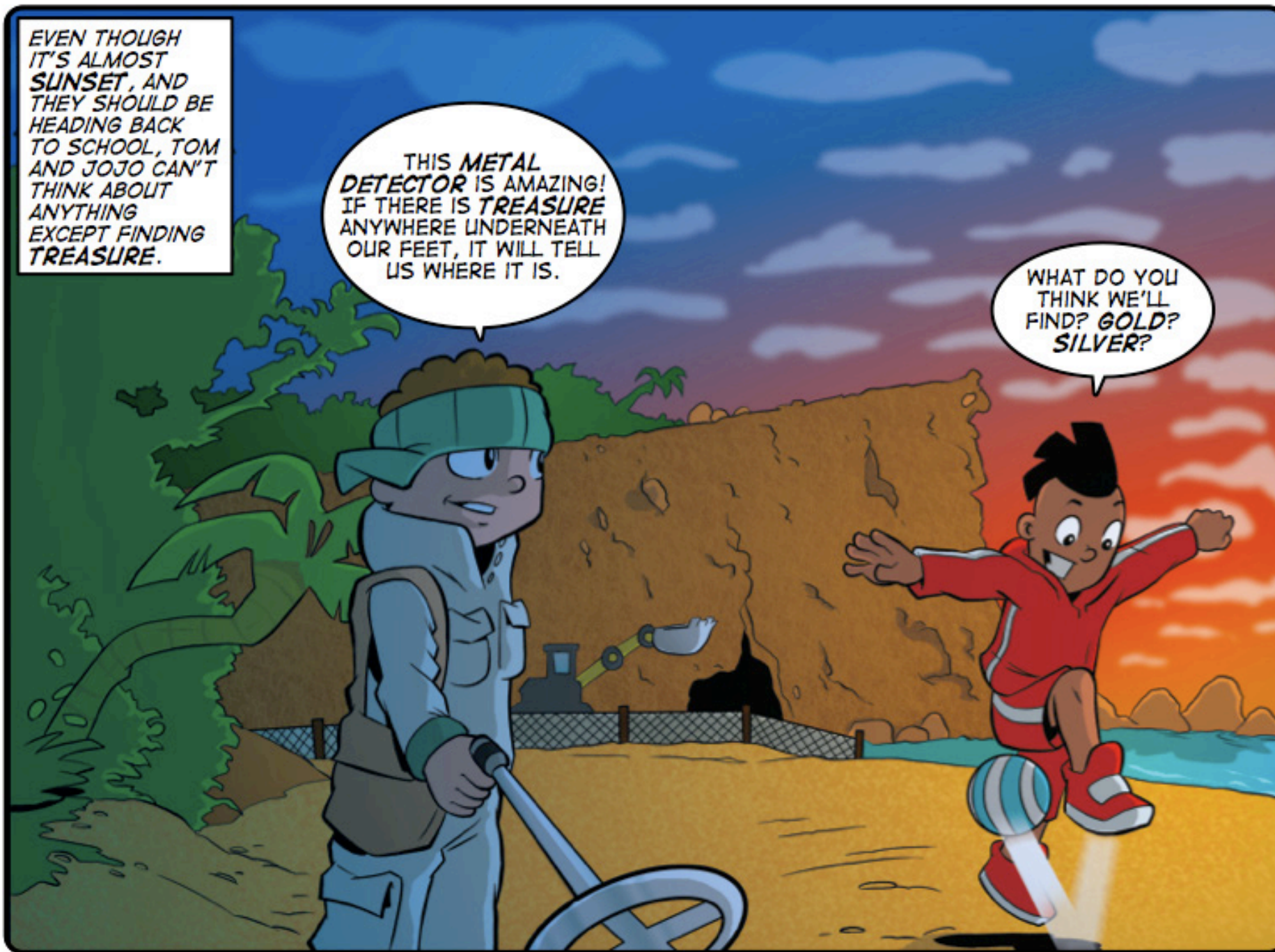


2. THE FORBIDDEN BEACH

EVEN THOUGH
IT'S ALMOST
SUNSET, AND
THEY SHOULD BE
HEADING BACK
TO SCHOOL, TOM
AND JOJO CAN'T
THINK ABOUT
ANYTHING
EXCEPT FINDING
TREASURE.

THIS **METAL
DETECTOR** IS AMAZING!
IF THERE IS **TREASURE**
ANYWHERE UNDERNEATH
OUR FEET, IT WILL TELL
US WHERE IT IS.

WHAT DO YOU
THINK WE'LL
FIND? **GOLD?**
SILVER?



A MINUTE LATER,
THE METAL
DETECTOR **BEEPS**
AND TOM FINDS HIS
FIRST TREASURE.

LOOK!

UH... IS IT
VALUABLE?

I HAVEN'T
GOT A **CLUE**.

WHY DON'T
WE CHECK OUT
THAT BEACH
OVER THERE?

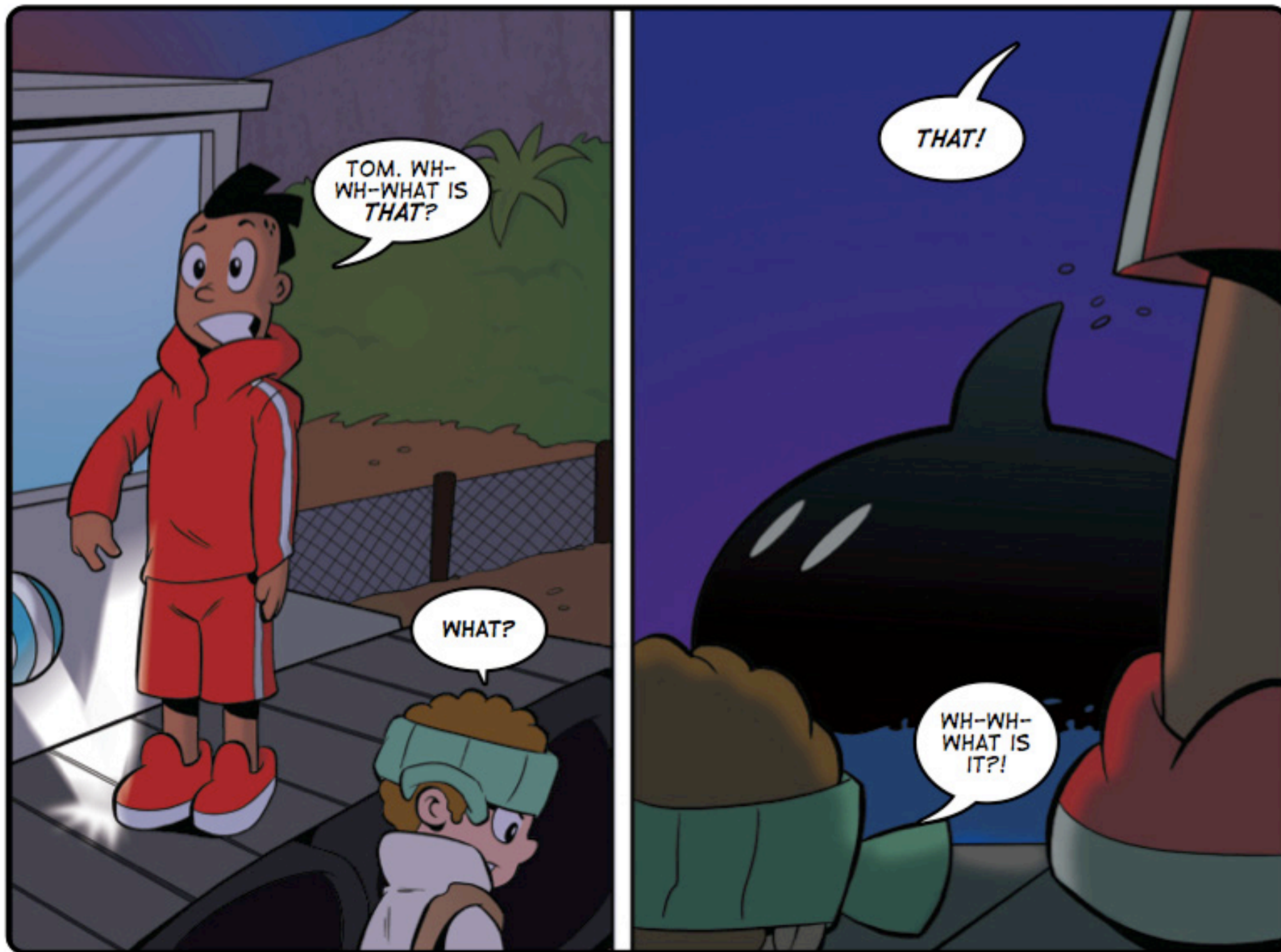
MANY ADVENTURES BEGIN BY
BREAKING THE RULES. BUT SOME
RULES SHOULD NOT BE BROKEN.

COME ON!
THERE'S NO
ONE HERE.

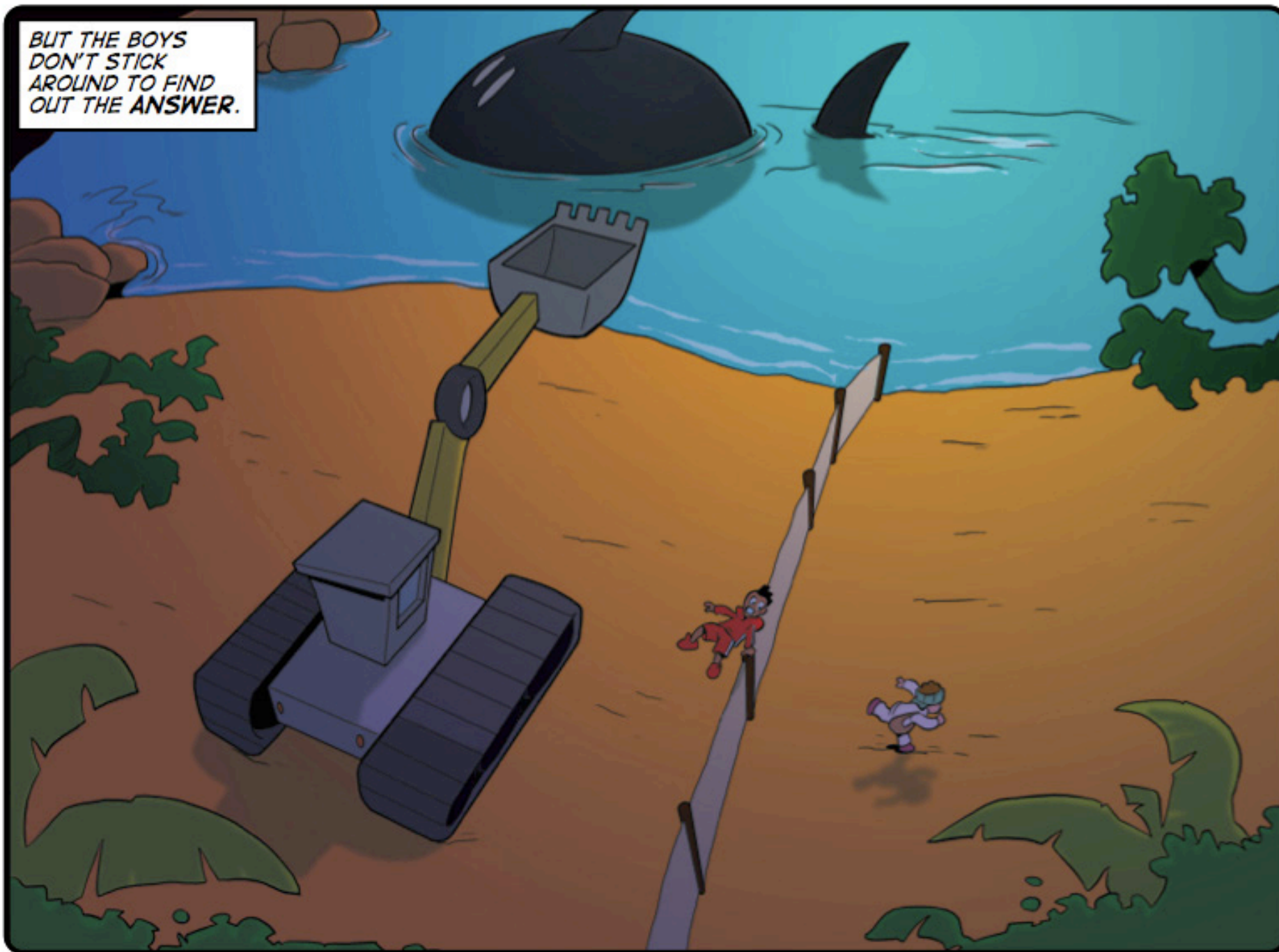
I DON'T THINK THIS IS
SUCH A GOOD IDEA. THERE
ARE **NO ENTRY** SIGNS
EVERYWHERE.

SEE? THERE'S
NOTHING TO
WORRY ABOUT!

CRIKEY! I DON'T KNOW
WHAT'S **BENEATH THE**
SURFACE HERE, BUT THE
METAL DETECTOR IS
GOING **CRAZY!**



BUT THE BOYS
DON'T STICK
AROUND TO FIND
OUT THE ANSWER.



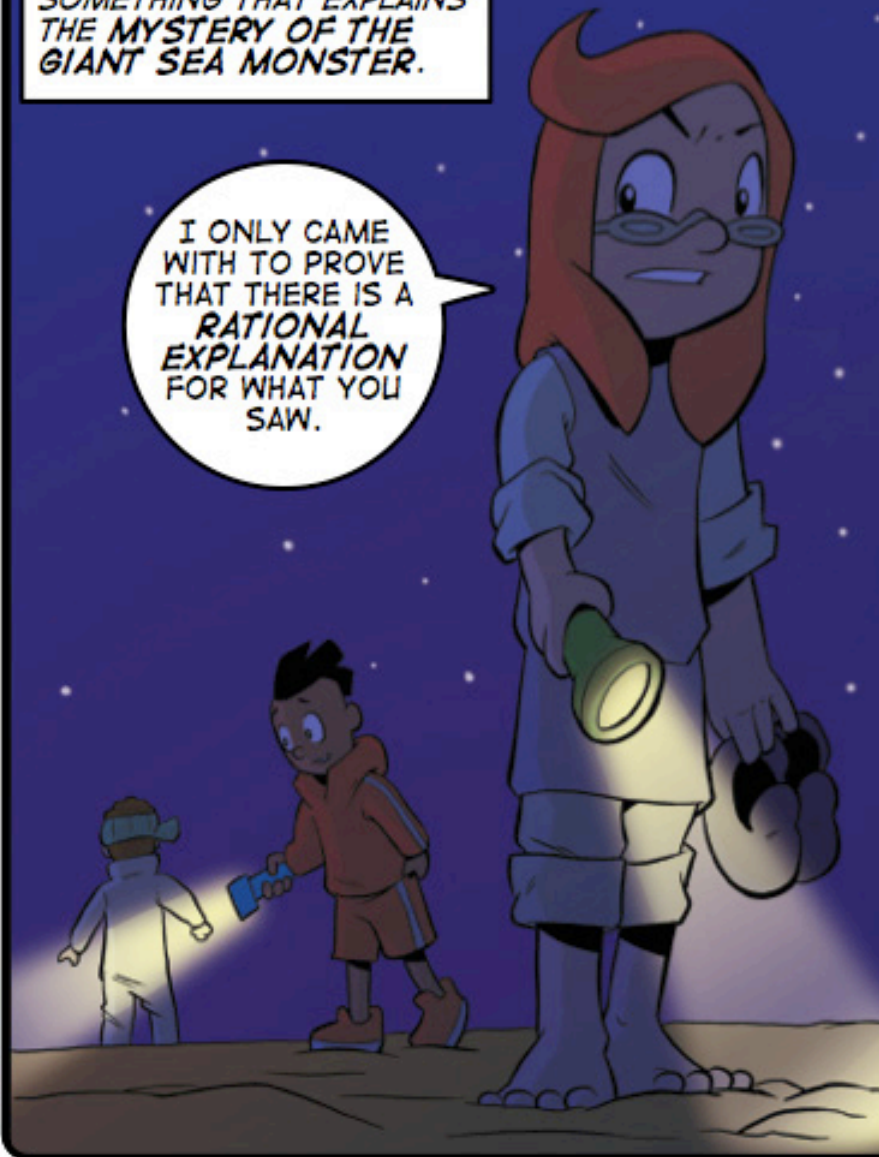
LATER THAT NIGHT...

I CAN'T **BELIEVE** I
LET YOU TALK ME INTO
SNEAKING OUT! WE
COULD GET EXPELLED
FOR THIS!

WILL YOU STOP
WHINING?! THIS
IS **BIG STUFF!**

WITHOUT REALLY KNOWING WHAT THEY'RE LOOKING FOR, THE THUNDERBOLT KIDS WANDER ABOUT THE BEACH HOPING TO SEE SOMETHING THAT EXPLAINS THE MYSTERY OF THE GIANT SEA MONSTER.

I ONLY CAME WITH TO PROVE THAT THERE IS A **RATIONAL EXPLANATION** FOR WHAT YOU SAW.



OUCH!



OW, OW,
OW, OW,
OUCH!





BUT NO AMOUNT OF **SCEPTICISM**
CAN PREPARE THE THUNDERBOLT
KIDS FOR WHAT THEY SEE NEXT.

LOOK
BEHIND
YOU!





AND IF THEIR TROUBLES
WEREN'T ENOUGH...

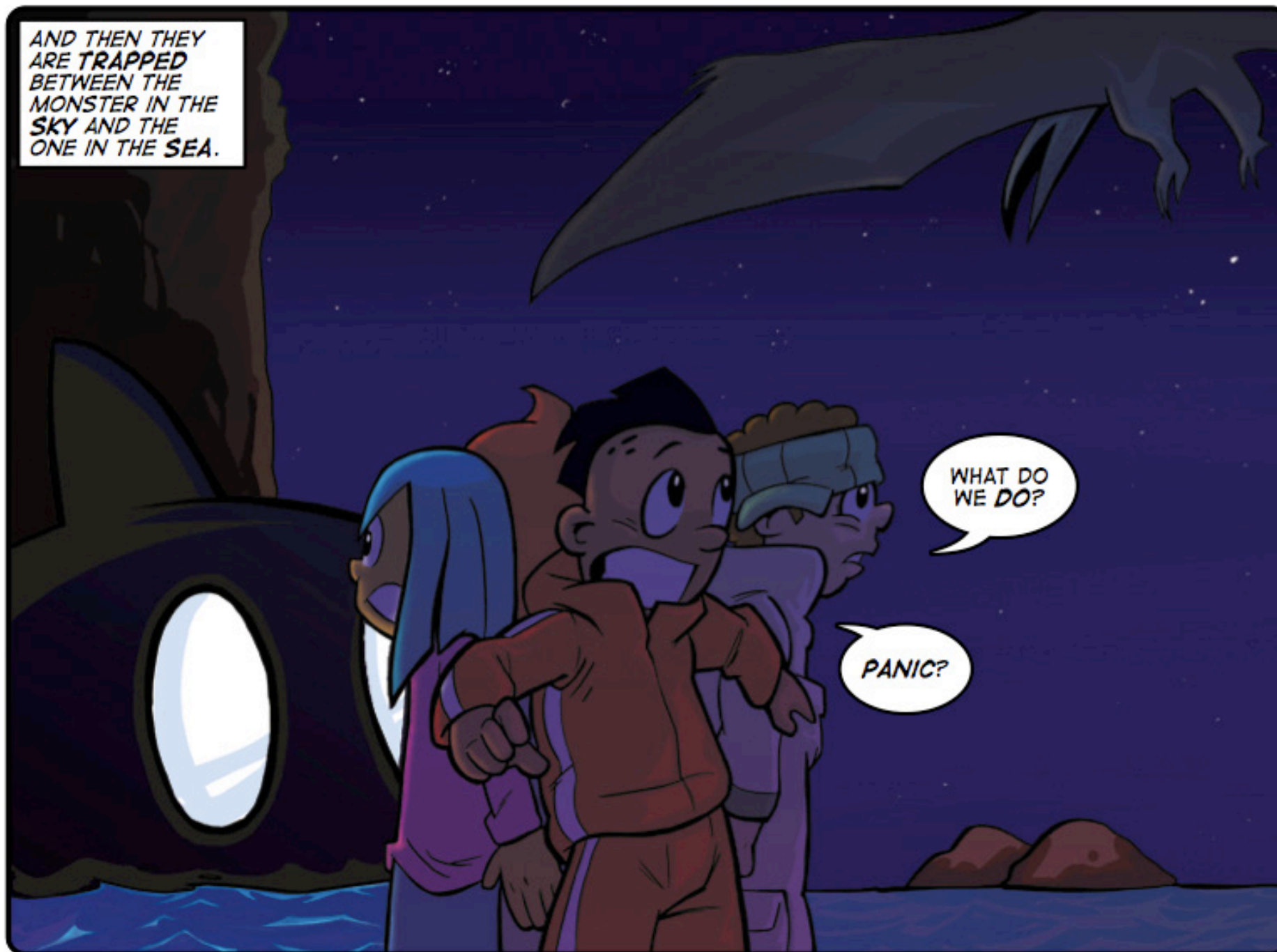
I THOUGHT
THESE THINGS
WERE **EXTINCT!**

LOOK! THE **SEA
MONSTER!**

THE AIR SEEMS TO CHILL
AS THE GIANT MONSTER
**BREAKS THE SURFACE
OF THE WATER.**

SLOOSH

AND THEN THEY
ARE **TRAPPED**
BETWEEN THE
MONSTER IN THE
SKY AND THE
ONE IN THE **SEA**.



WHAT DO
WE DO?

PANIC?

SUDDENLY A **DEEP**
VOICE BOOMS OUT.

WHO ARE
YOU? AND
WHAT DO
YOU WANT
HERE?

THAT'S A
HUMAN
VOICE...

AND THEN THE MYSTERY DEEPENS AS THE
MONSTER'S MOUTH OPENS WITH A CREAK
AND REVEALS THE METALLIC CAVE WITHIN.

CREAK



BUT STRANGER THAN ANYTHING THEY HAVE SEEN IS THE SIGHT OF THE MAN WHO EMERGES FROM THE MOUTH OF THE MONSTER AND POINTS A REMOTE CONTROL AT THE PTERODACTYL.



THE NAME IS
**HENRY
SHELLMAN**. I'M
AN **INVENTOR**.
AND **YOU** ARE
TRESPASSING.

FOLLOW ME,
KIDS. IT'S MORE
COMFORTABLE
INSIDE.

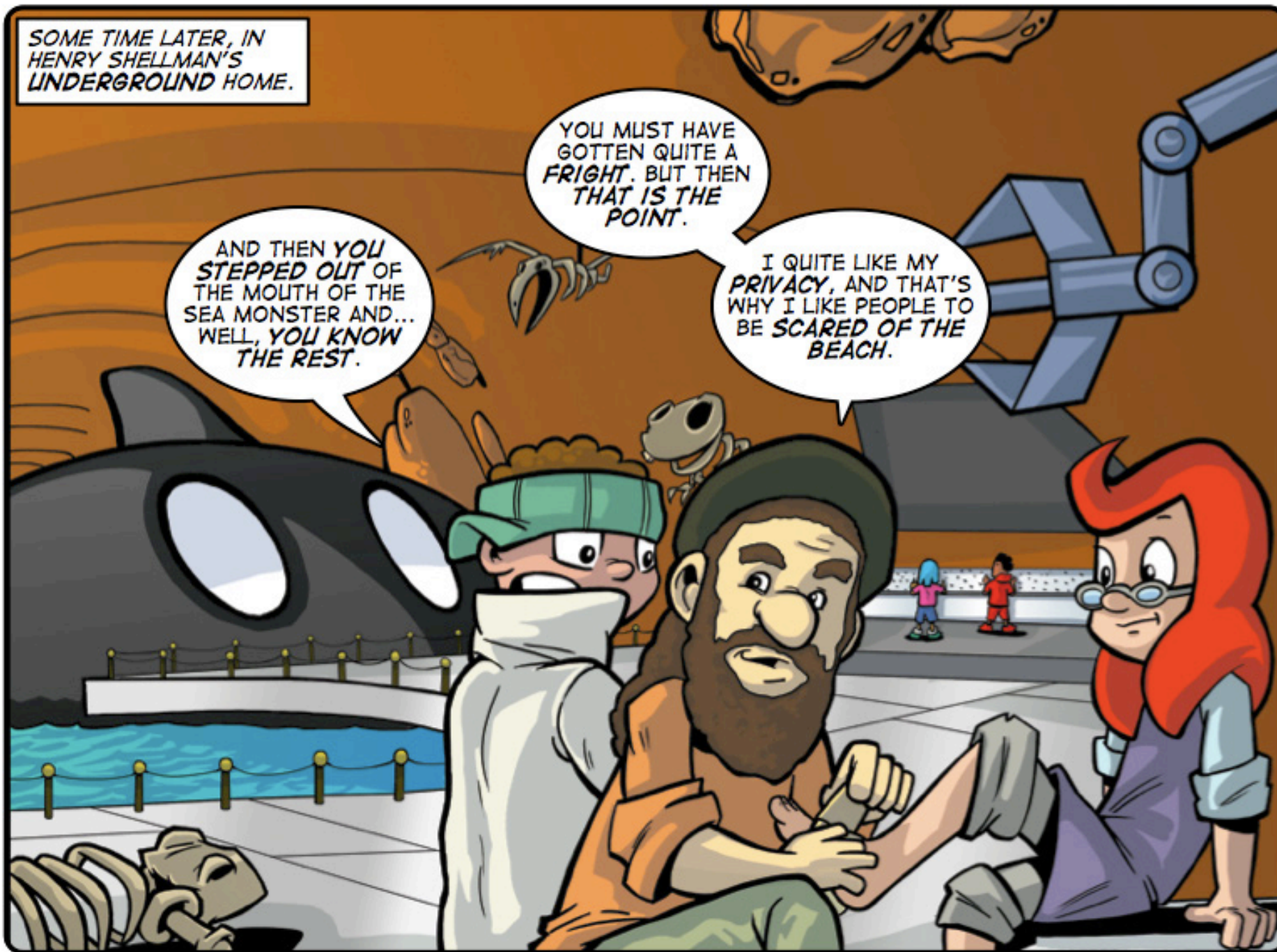
?!

SOME TIME LATER, IN
HENRY SHELLMAN'S
UNDERGROUND HOME.

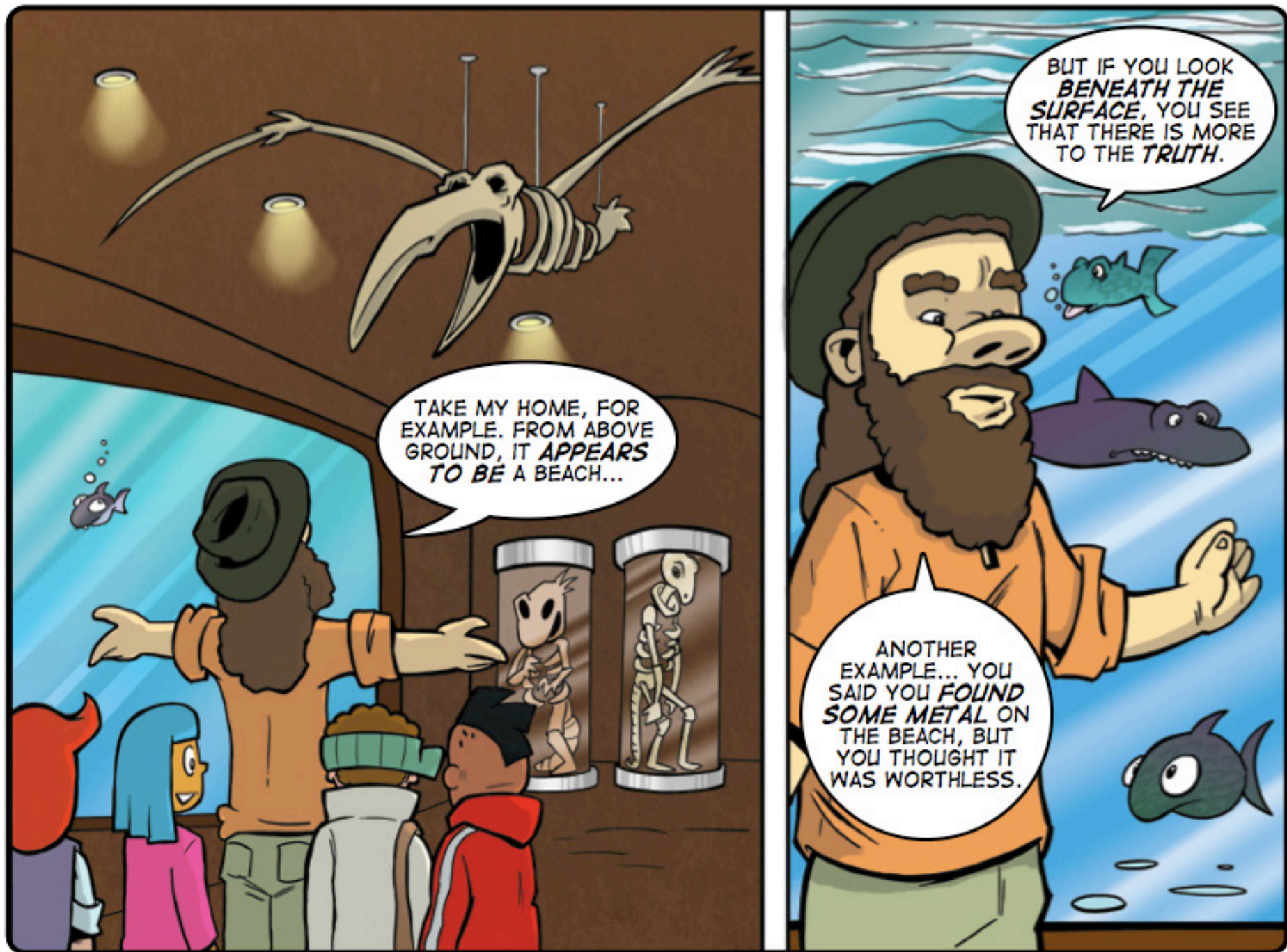
AND THEN **YOU**
STEPPED OUT OF
THE MOUTH OF THE
SEA MONSTER AND...
WELL, **YOU KNOW**
THE REST.

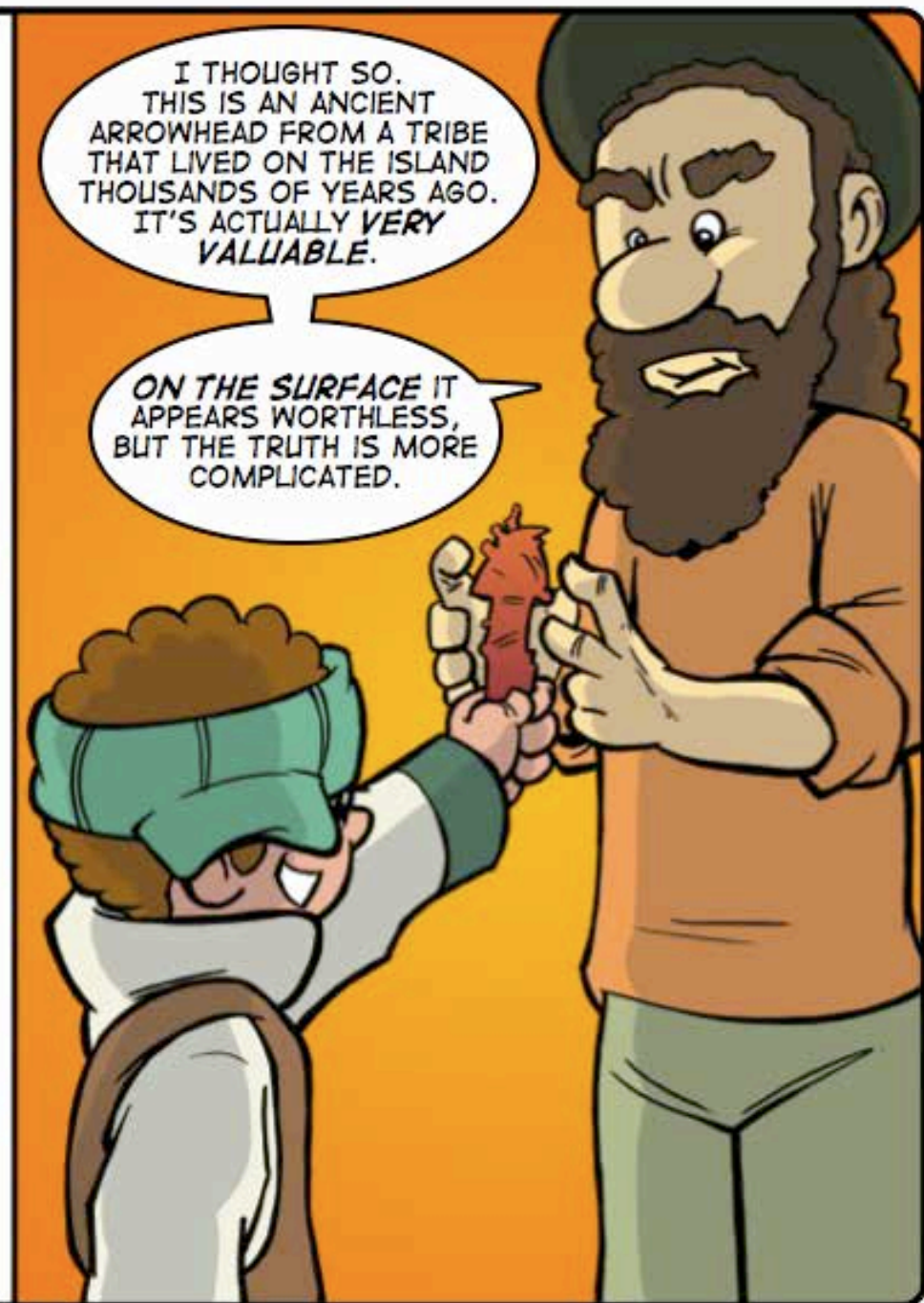
YOU MUST HAVE
GOTTEN QUITE A
FRIGHT. BUT THEN
THAT IS THE
POINT.

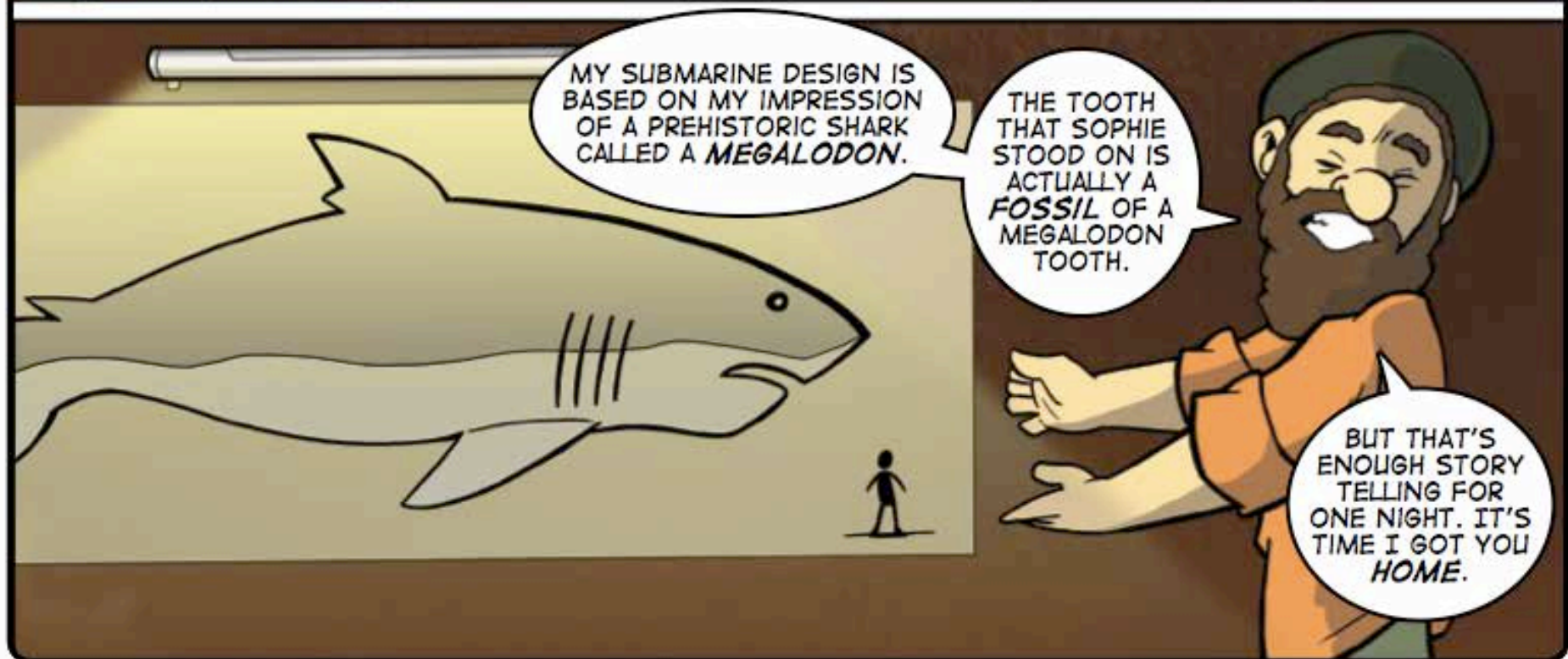
I QUITE LIKE MY
PRIVACY, AND THAT'S
WHY I LIKE PEOPLE TO
BE **SCARED OF THE**
BEACH.











IT'S A LONG RIDE BACK TO SCHOOL. THE THUNDERBOLT KIDS KNOW THAT THEY MAY BE IN TERRIBLE TROUBLE, BUT THEY MAY BE ABLE TO SNEAK BACK IN **WITHOUT** TIA FINDING OUT WHERE THEY'VE BEEN.



THE NEXT DAY, IN CLASS...



3. THE GAME OF DEATH

ANOTHER ADVENTURE IN THE VIRTUAL
REALITY MACHINE IS ABOUT TO BEGIN.

TODAY WE'RE
PLAYING A *GAME* IN
THE *VR MACHINE*.
YOU WILL PLAY IN
GROUPS OF *FOUR*.

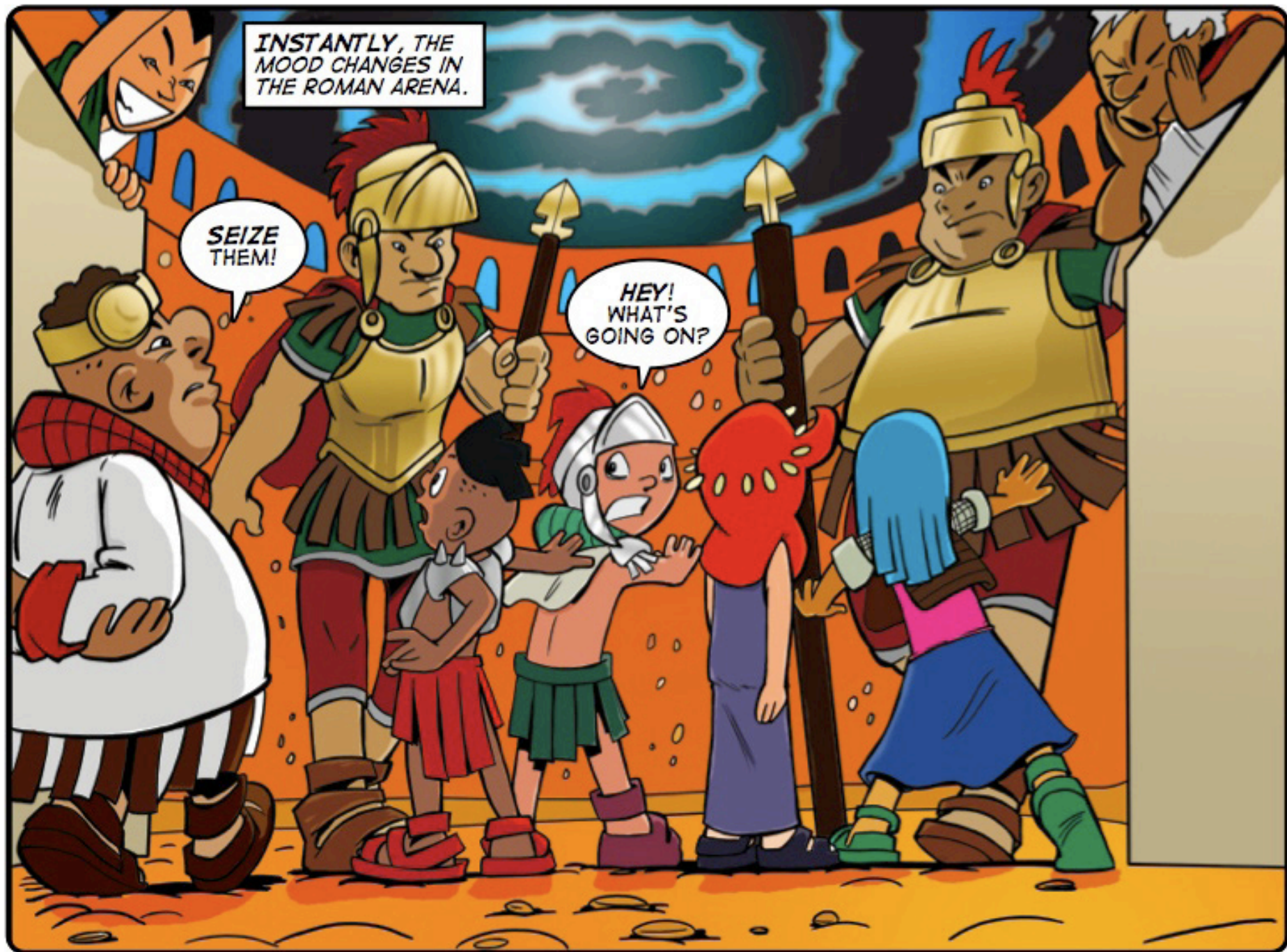
IF YOU GET
REALLY STUCK,
YOU'LL FIND THAT
HELP WILL POP
UP RIGHT IN
FRONT OF YOU.

RIGHT, *YOU*
FOUR! YOU'RE
UP *FIRST*.













MEANWHILE, LAZLO AND HIS FRIENDS ARE HAVING A MUCH EASIER TIME IN THEIR VERSION OF THE GAME...

IT'S A
SIMPLE TEST
OF WITS, SIR.
YOU'LL LOVE
IT!

WELCOME,
YOUNG GENTS!
I HOPE YOU ARE
COMFORTABLE
UP THERE!





AND BACK IN
DARK ARENA,
FARRAH MEETS
A NEW FOE.

YOU'RE
GONNA PAY
FOR THIS,
JERK!

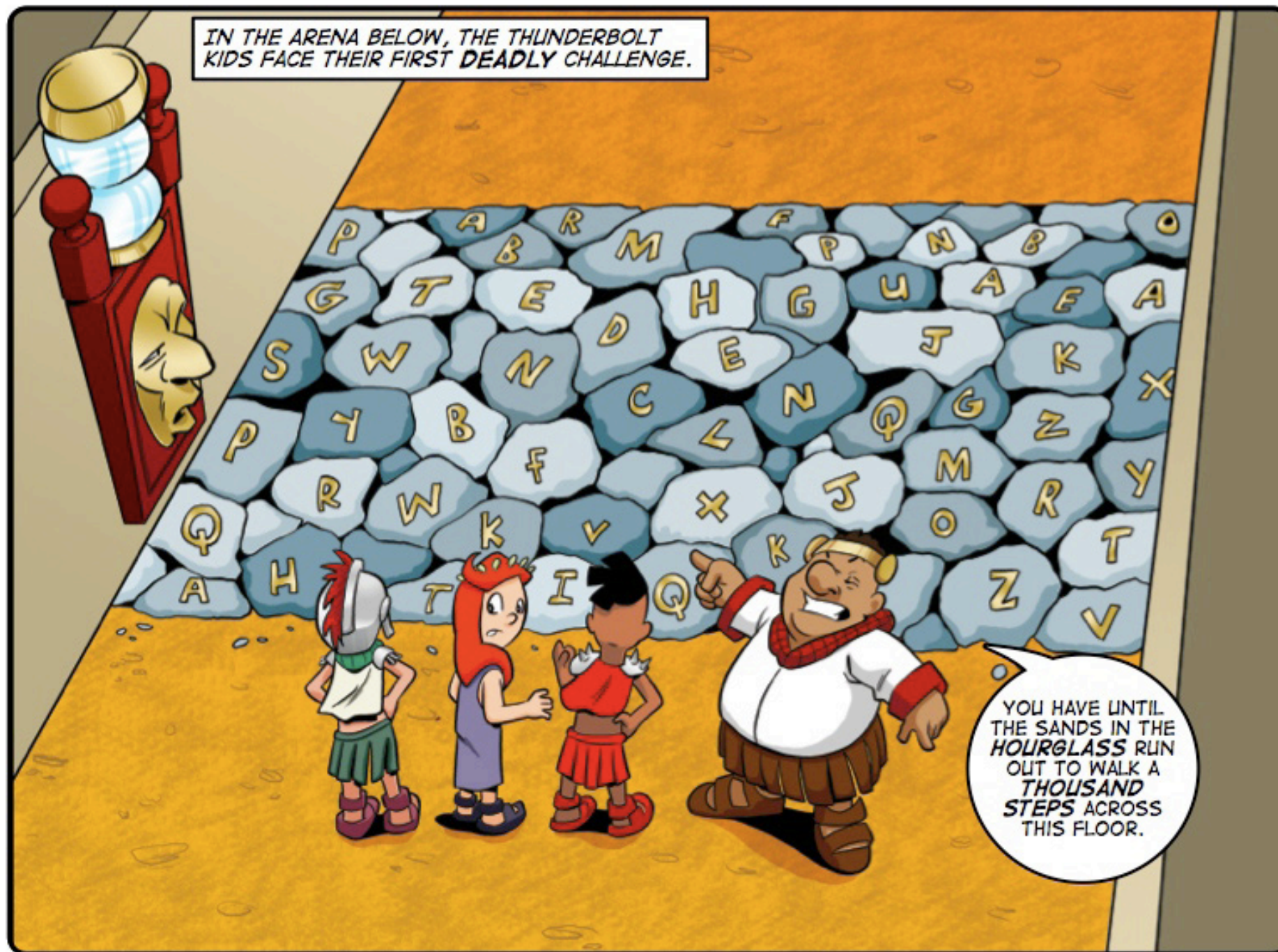
I HOPE YOUR
FRIENDS ARE
QUICK THINKERS.
YOUR **LIFE**
DEPENDS ON IT.

YOU MUST
COMPLETE THE
CHALLENGES, OR
YOUR **FRIEND**
IN THE CAGE
WILL **DIE!**

YOU MUST
COMPLETE THE
CHALLENGES, OR
YOUR **FRIEND**
IN THE CAGE
WILL **DIE!**

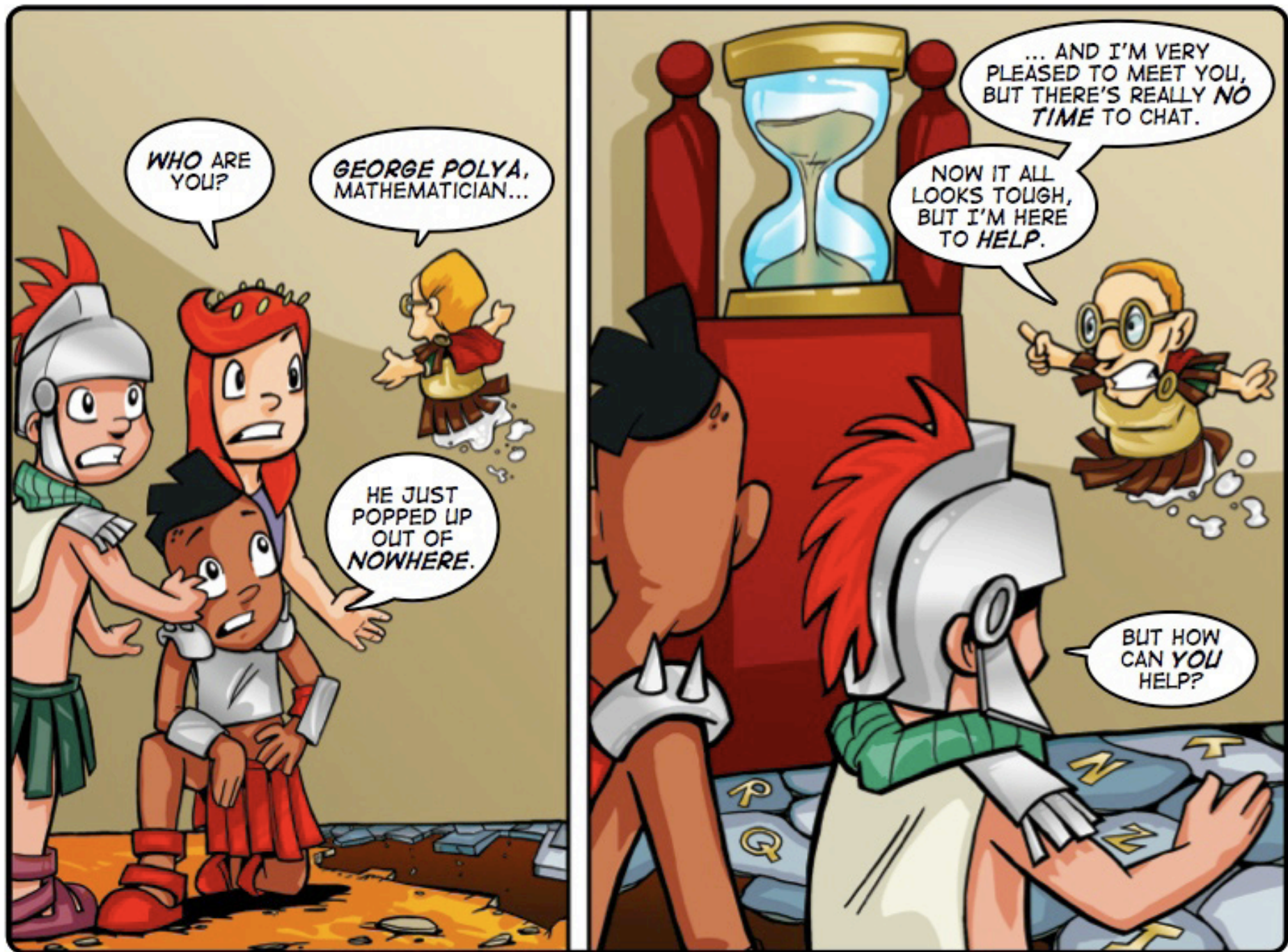
YOU MUST
COMPLETE THE
CHALLENGES, OR
YOUR **FRIEND**
IN THE CAGE
WILL **DIE!**

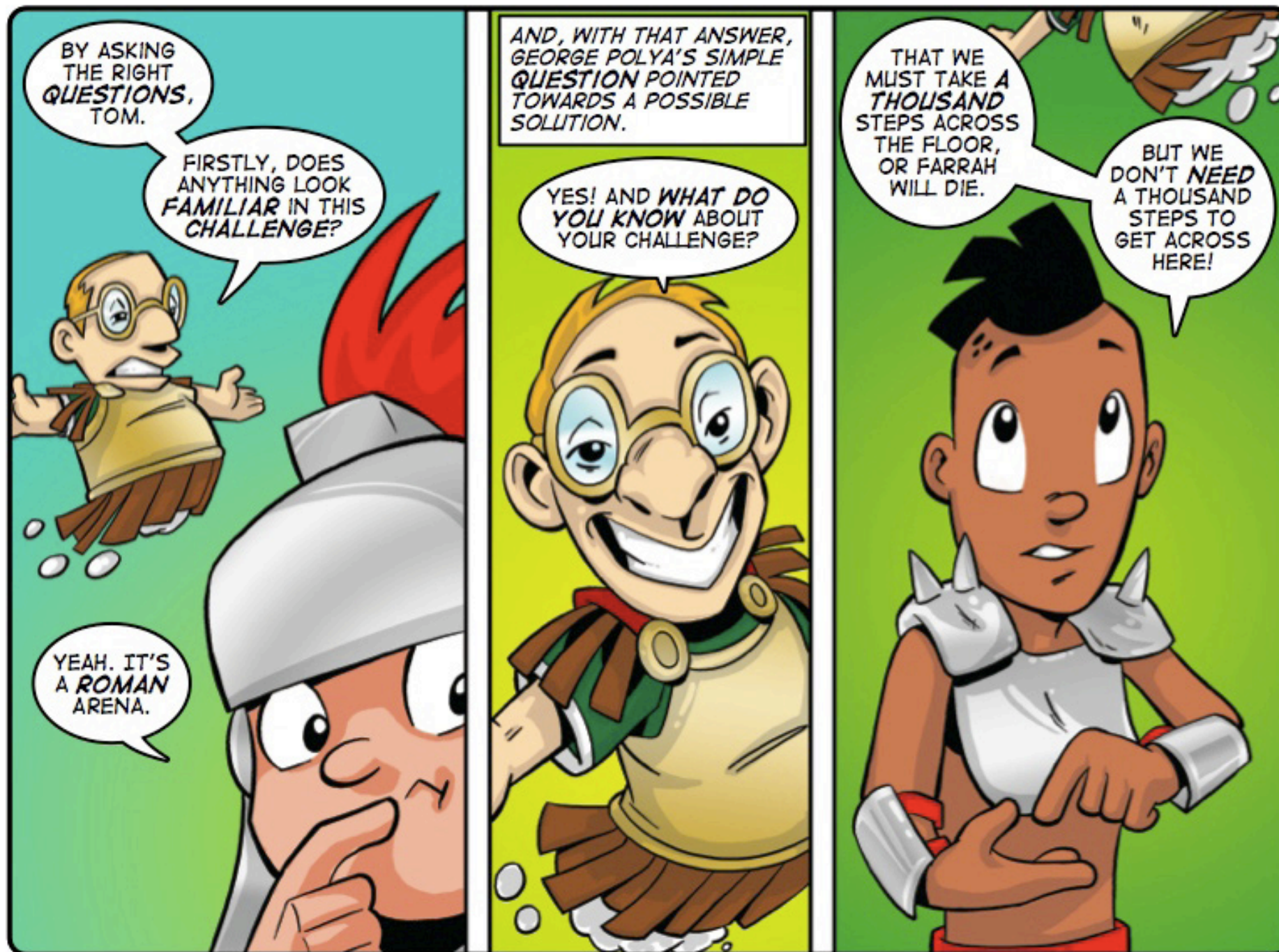
IN THE ARENA BELOW, THE THUNDERBOLT KIDS FACE THEIR FIRST **DEADLY** CHALLENGE.

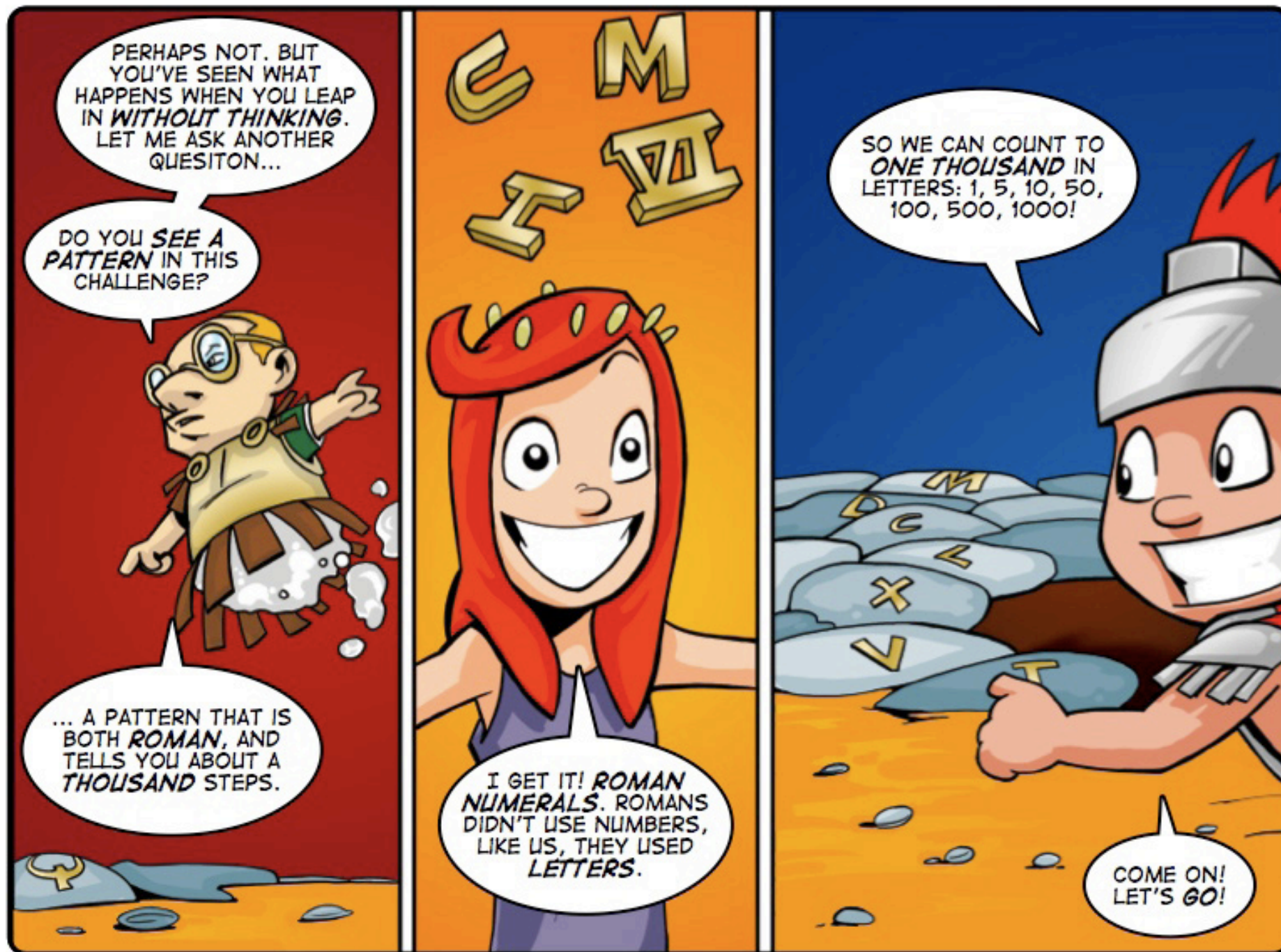


YOU HAVE UNTIL THE SANDS IN THE **HOURGLASS** RUN OUT TO WALK A **THOUSAND STEPS** ACROSS THIS FLOOR.









ARMED WITH **CONFIDENCE**,
THEY SKIP OVER THE ROCKS
WITHOUT FEAR OF THE DEADLY
SNAKES BELOW.



AND AS THE **LAST**
GRAIN OF SAND
FALLS THROUGH THE
HOURGLASS, THE
FLOOR CAVES IN
BEHIND THEM.

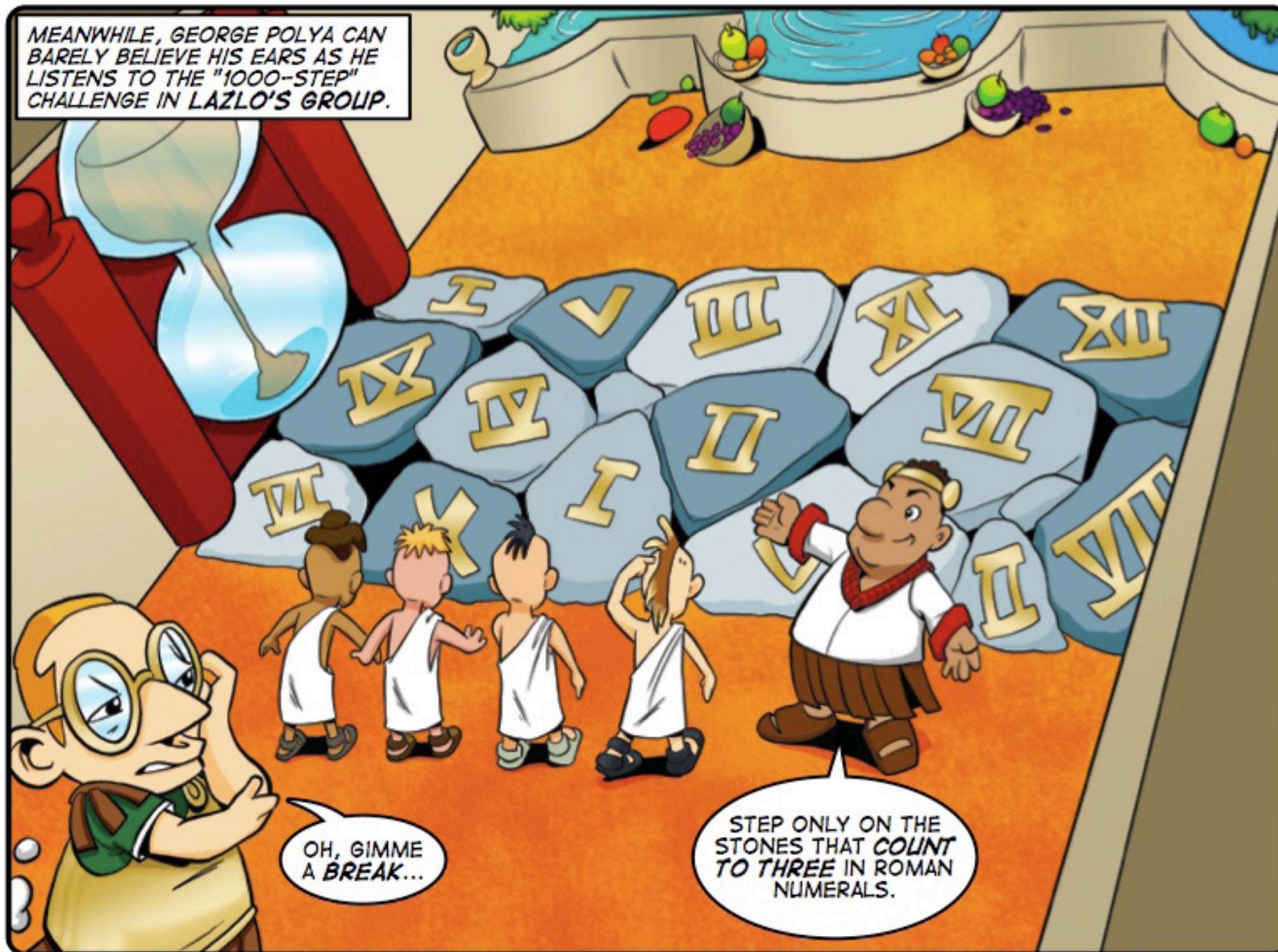


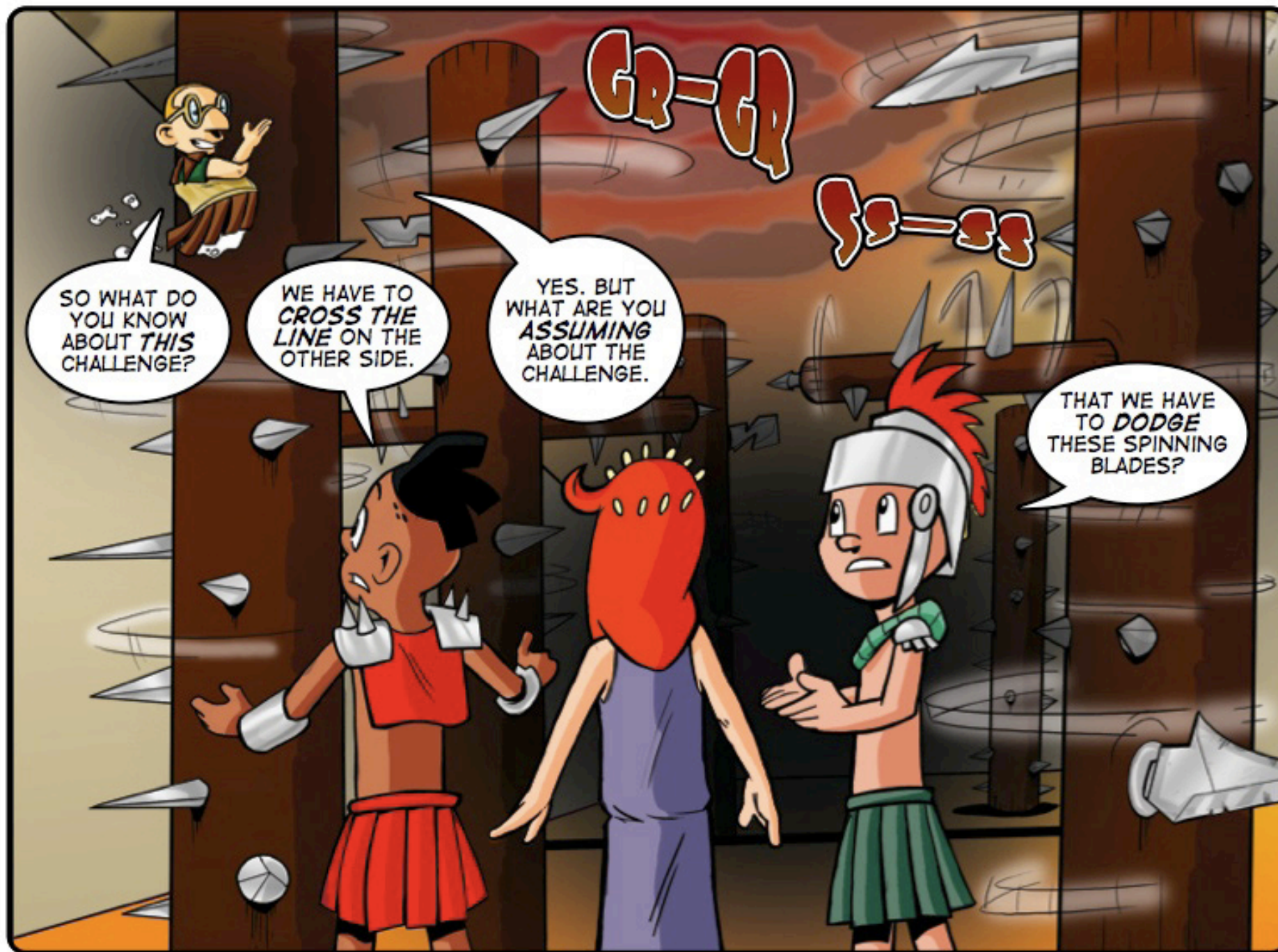
BUT SUDDENLY, IN FRONT OF THEM, A DEADLY
MACHINE OF SPINNING **RAZOR BLADES** RISES
OUT OF THE EARTH.





MEANWHILE, GEORGE POLYA CAN BARELY BELIEVE HIS EARS AS HE LISTENS TO THE "1000-STEP" CHALLENGE IN LAZLO'S GROUP.







AS THE EMPEROR SEES THE THUNDERBOLT KIDS DESTROY HIS MACHINE, HE LETS OUT A TERRIBLE SCREAM.

BUT HE WOULD BE EVEN MORE UPSET IF HE KNEW WHAT WAS HAPPENING BEHIND HIM.

GOOOD KITTY. BAAAAA EMPEROR.

• MEOW •

GNAA!

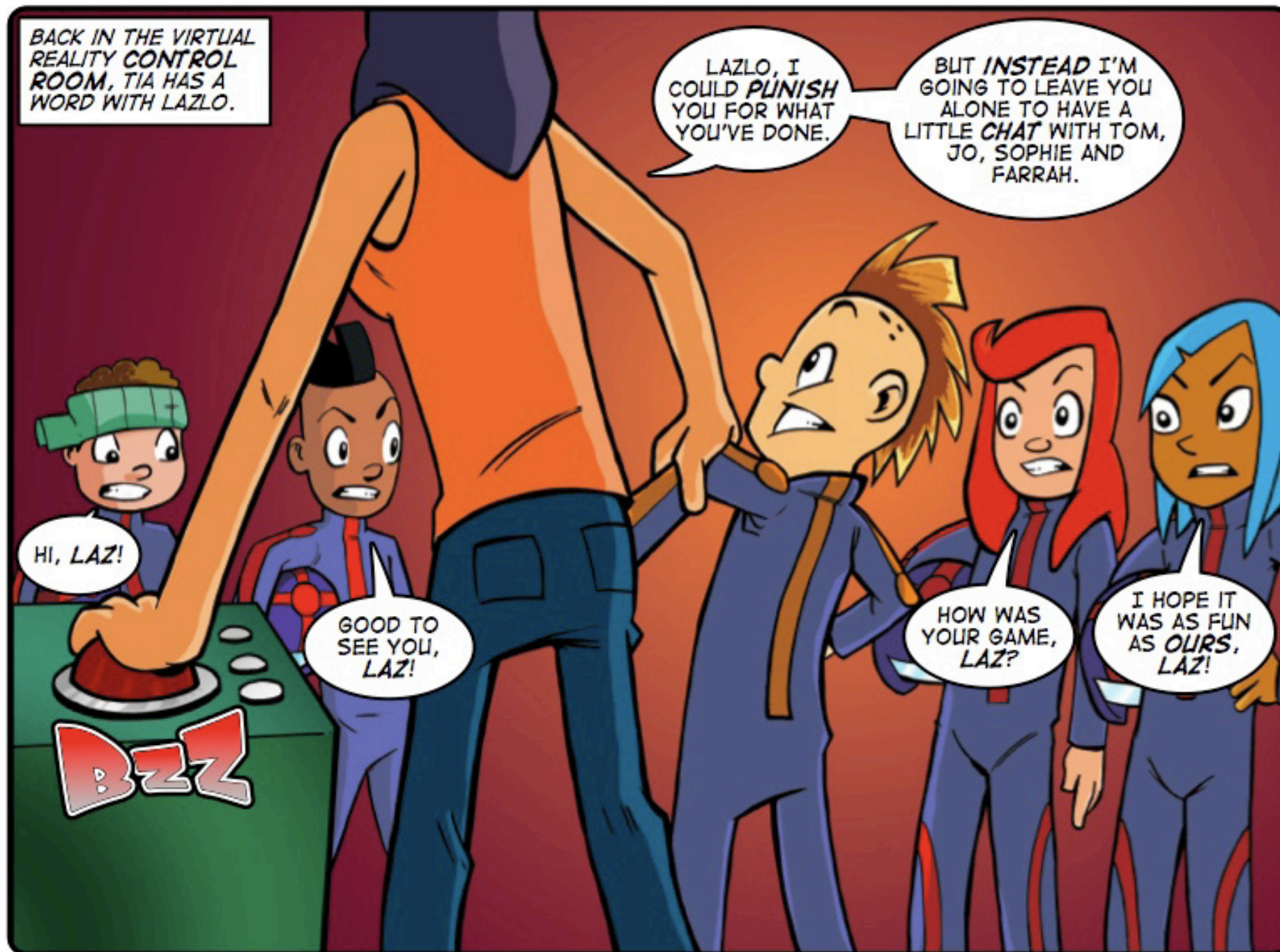
AND AT THAT MOMENT, THE THUNDERBOLT KIDS CROSS THE FINISH LINE AND EXIT THE VIRTUAL REALITY MACHINE.



JUST AS FARRAH VANISHES FROM THE CAGE.



AND HER NEW FRIEND STARTS TO LOOK DIFFERENTLY AT HIS OLD MASTER.



4. THE BALLOON BET



WHEN TOM SEES THE BRIGHT COLOURS OF THE **BALLOON** AGAINST THE SKY, HE MAKES UP HIS MIND TO LEARN EVERYTHING HE CAN THAT WILL TEACH HIM TO MAKE ONE FOR HIMSELF.

TOM NEVER WAISTS TIME WHEN HE'S INTERESTED IN SOMETHING.

HI, I'M TOM.
FROM THE
THUNDERBOLT
SCHOOL OF
THINKING.

HOW DO YOU DO,
TOM. IM **BASIL**.
FROM THE **SKY**!

HE GOES STRAIGHT TO THE **BEST SOURCE**
OF INFORMATION AND HE ASKS ALL THE
QUESTIONS HE CAN THINK OF.

SO HOW
DOES IT
WORK?

THERE'S A LOT OF
INFORMATION
YOU NEED TO THINK
ABOUT TO MAKE A
BALLOON WORK
SAFELY...

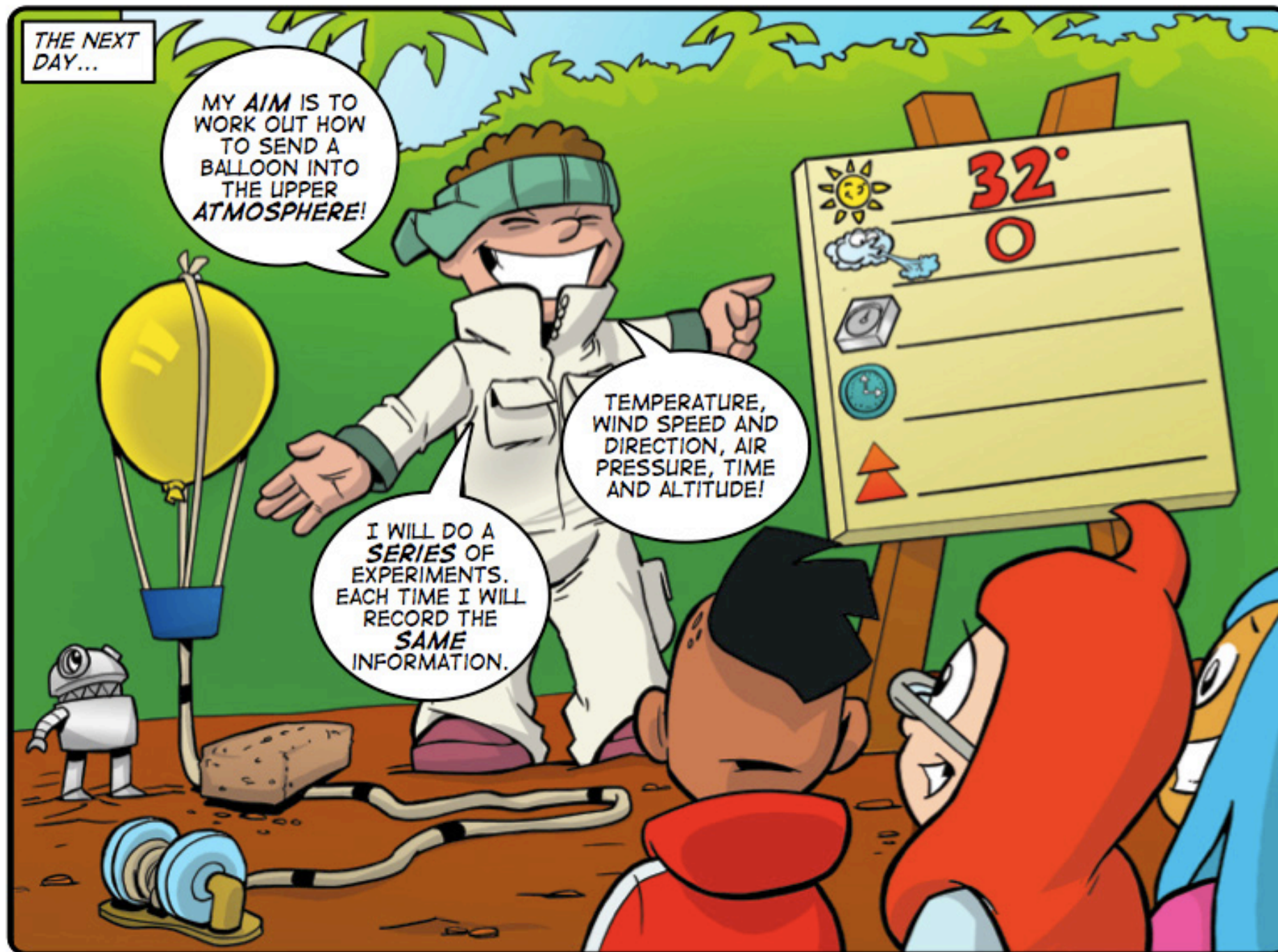




... FACTS THAT HE CAN'T WAIT TO USE IN HIS OWN BALLOONING EXPERIMENTS.

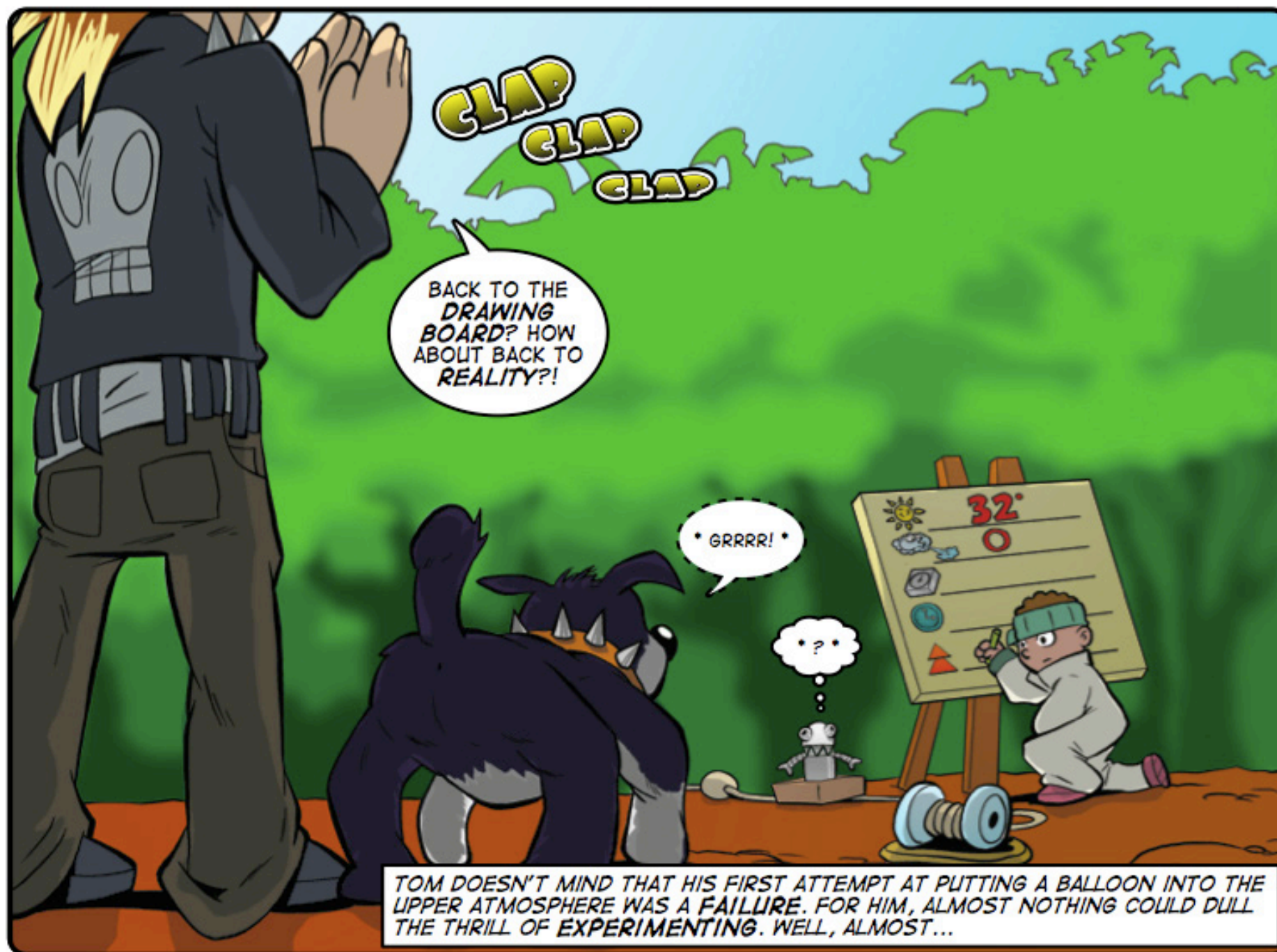
BASIL'S BALLOON USES *HOT AIR*, BUT HE SAID *HELIUM GAS* WOULD WORK FINE FOR MY EXPERIMENTS.

AS THE BALLOON LIFTS OFF, TOM'S HEAD REELS WITH ALL THE **NEW FACTS** HE HAS LEARNED...

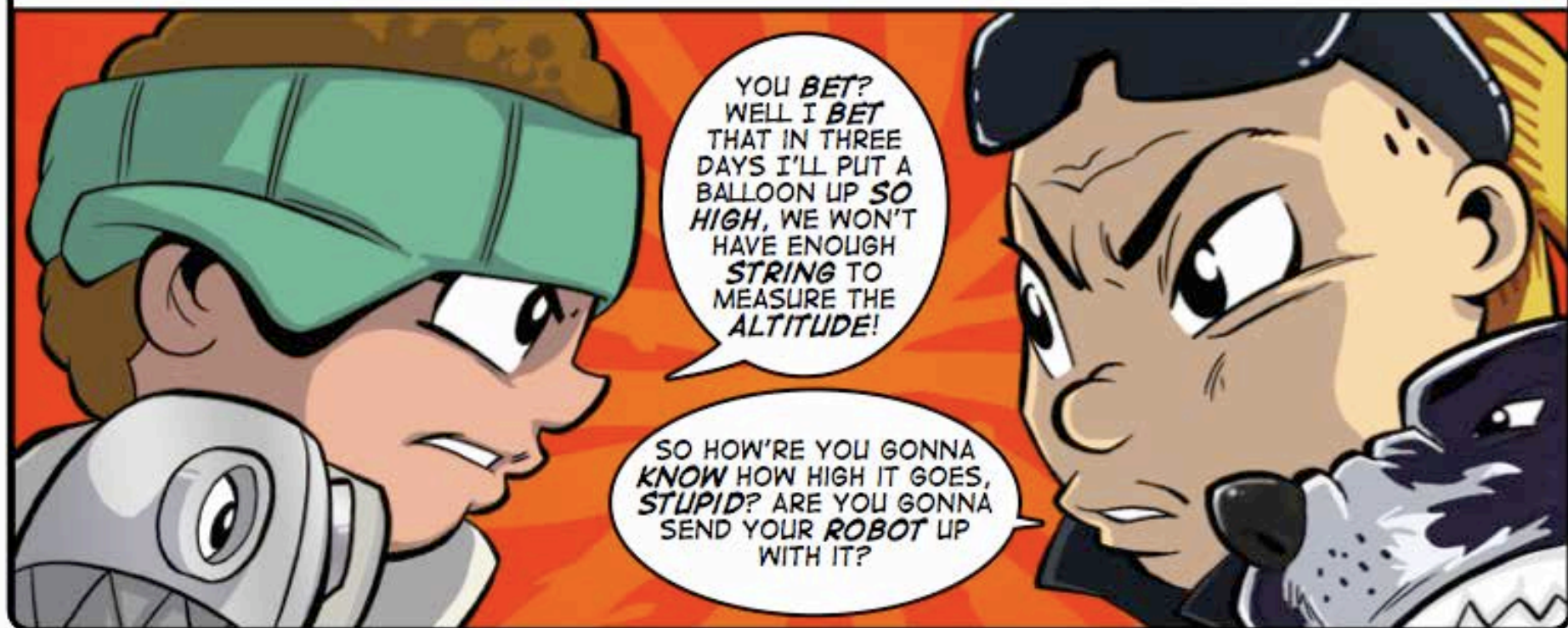
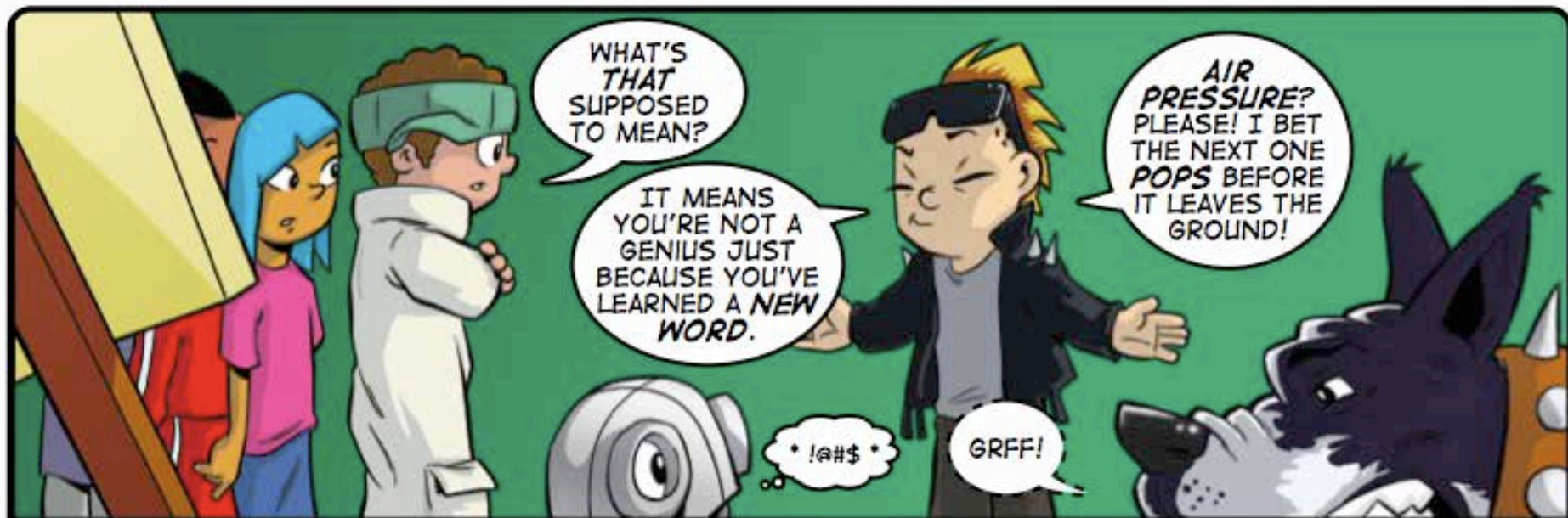








TOM DOESN'T MIND THAT HIS FIRST ATTEMPT AT PUTTING A BALLOON INTO THE UPPER ATMOSPHERE WAS A FAILURE. FOR HIM, ALMOST NOTHING COULD DULL THE THRILL OF EXPERIMENTING. WELL, ALMOST...



THEN, CAUGHT UP IN THE HEAT OF THE MOMENT, TOM MAKES A **PROMISE** THAT HE IS NOT SURE HE CAN KEEP.

EXACTLY! I'LL SEND MY ROBOT UP IN THE BALLOON, AND THEN WE'LL KNOW EXACTLY HOW HIGH IT GOES!



AND LAZLO KNOWS IT.

HA! THE LAST DAY IN THE LIFE OF TOM'S ROBOT. I WOULDN'T MISS THAT FOR THE **WORLD!**



THE NEXT DAY...

AFTER EXAMINING ALL THE INFORMATION HE RECORDED, TOM COMES TO A FEW CONCLUSIONS.

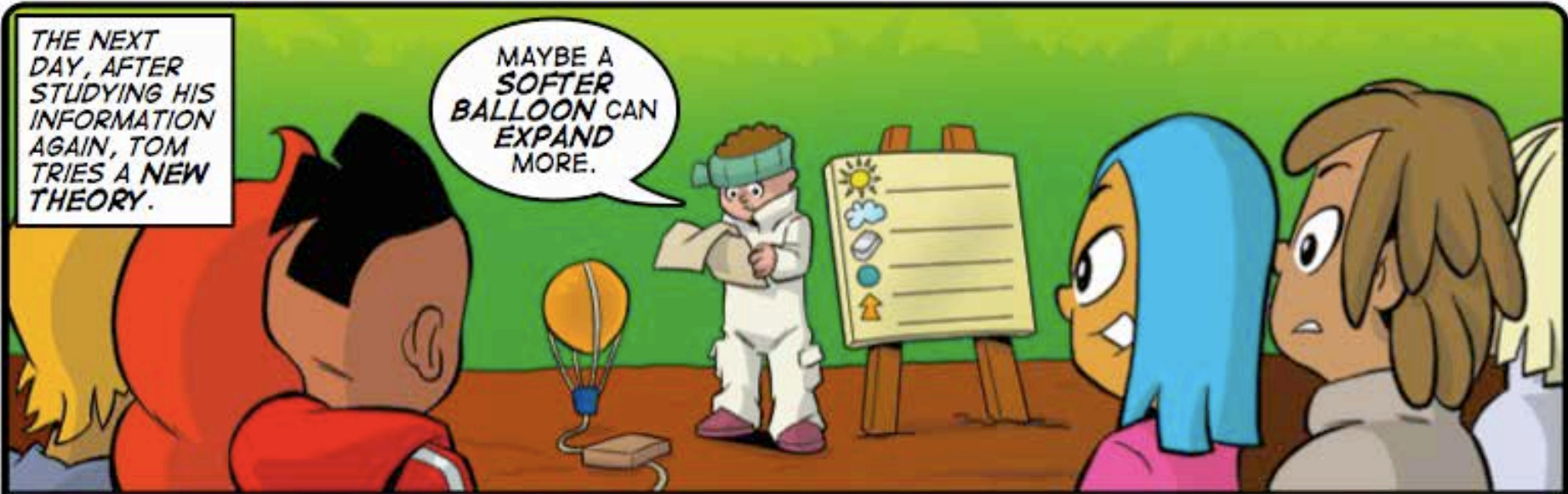
YESTERDAY I USED **TOO MUCH GAS**. THE **AIR PRESSURE** ON THE **BALLOON** WAS TOO GREAT, SO IT **POPPED** RIGHT ABOVE ME.



AND SO TRIES AGAIN. THIS TIME WITH LESS GAS. AND THE RESULTS ARE EXTRAORDINARY.

YEAH!

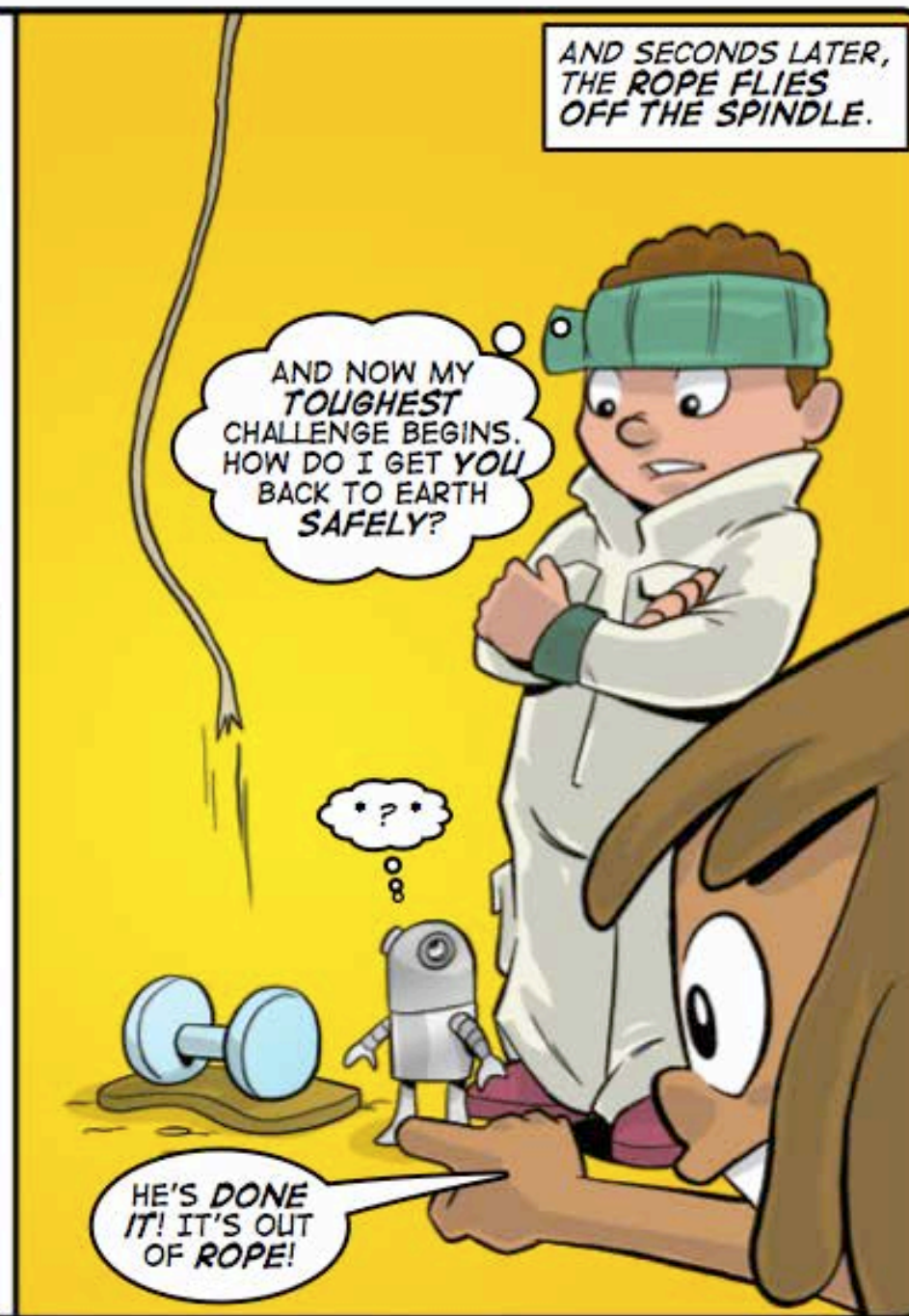


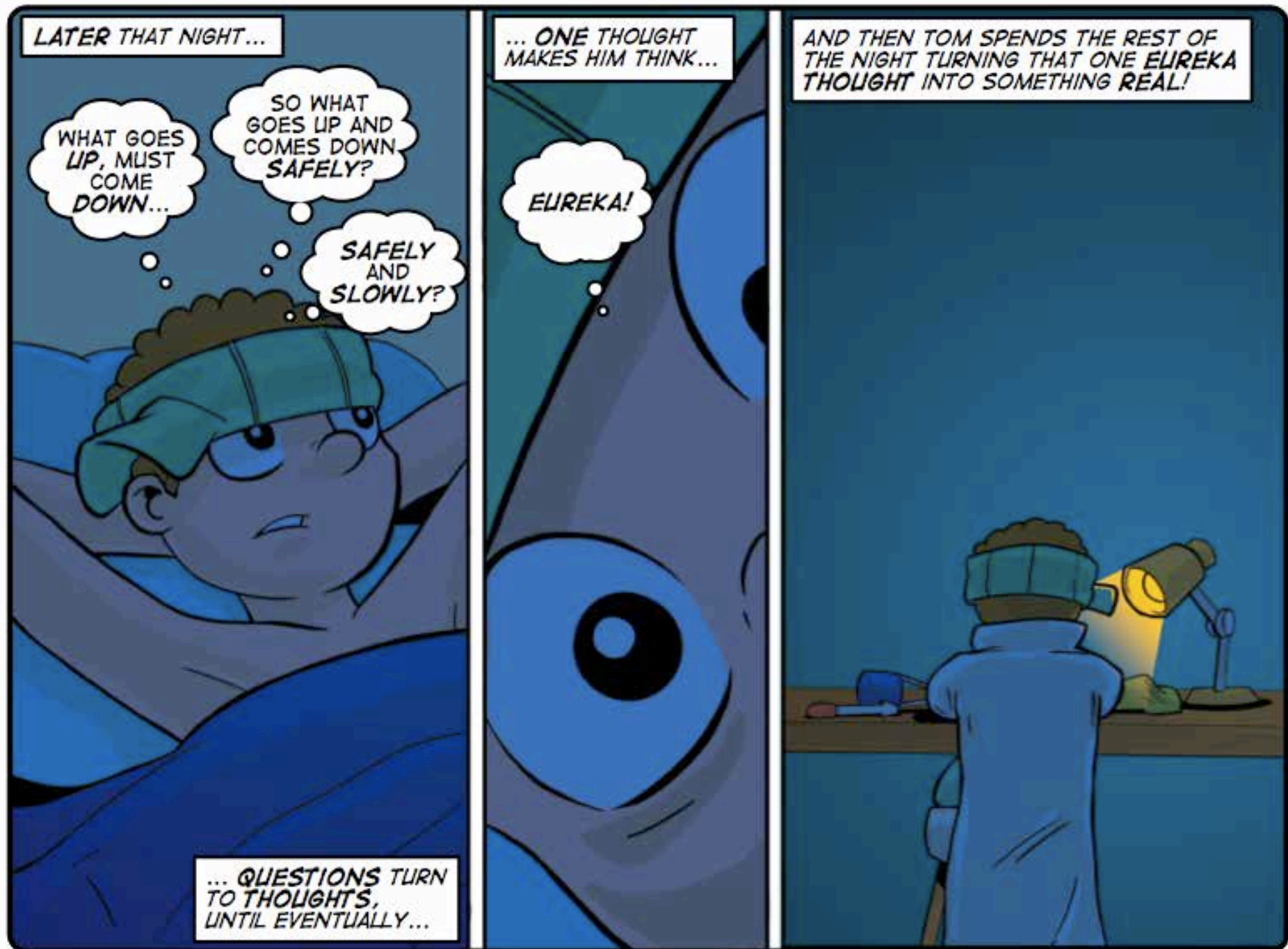


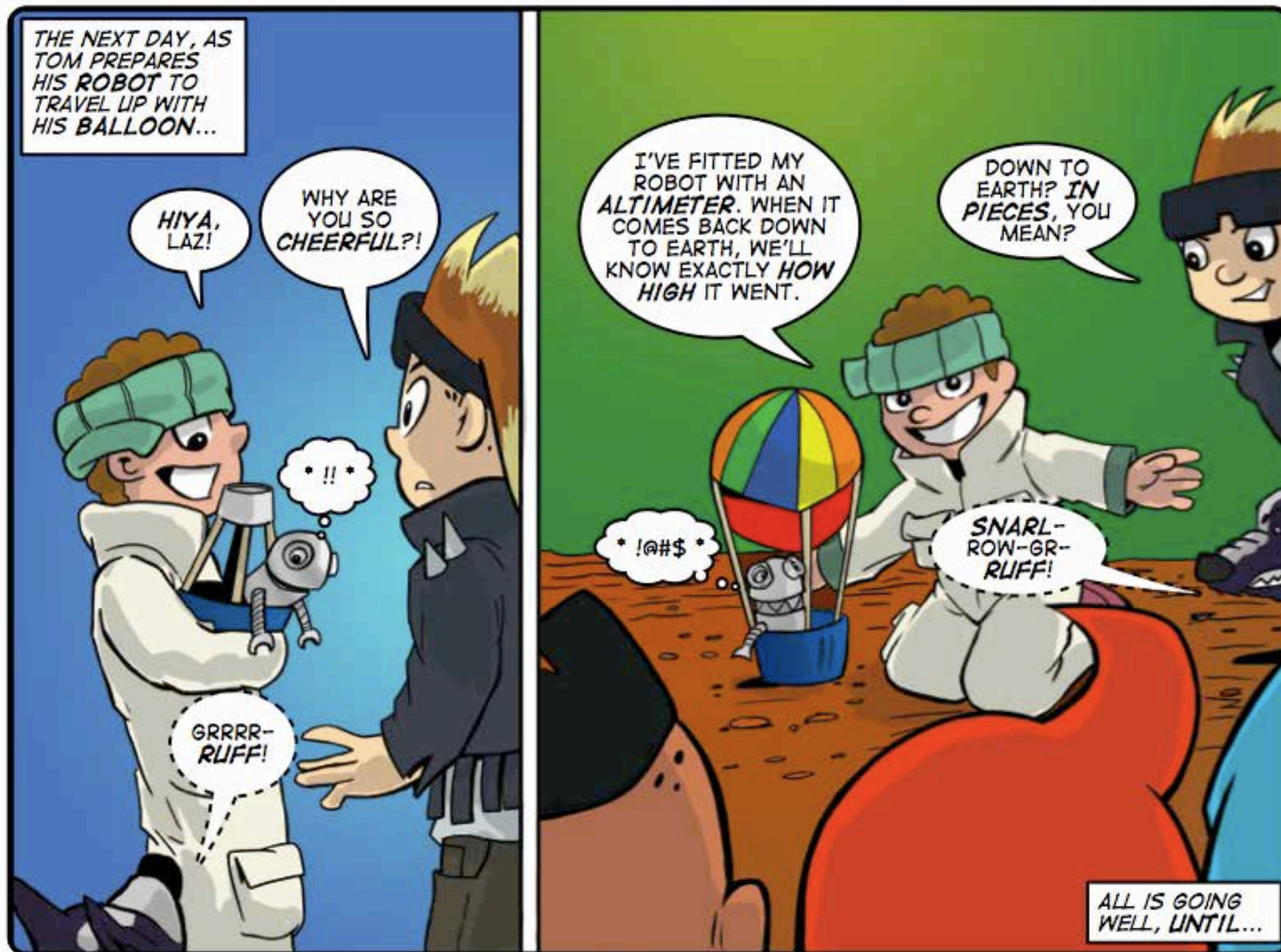
AFTER ANALYSING ALL THE INFORMATION HE HAS COLLECTED, TOM IS SURE THAT THE **CONDITIONS** TODAY ARE **PERFECT** TO SEND A BALLOON INTO THE UPPER ATMOSPHERE! HE LIFTS THE BRICK...



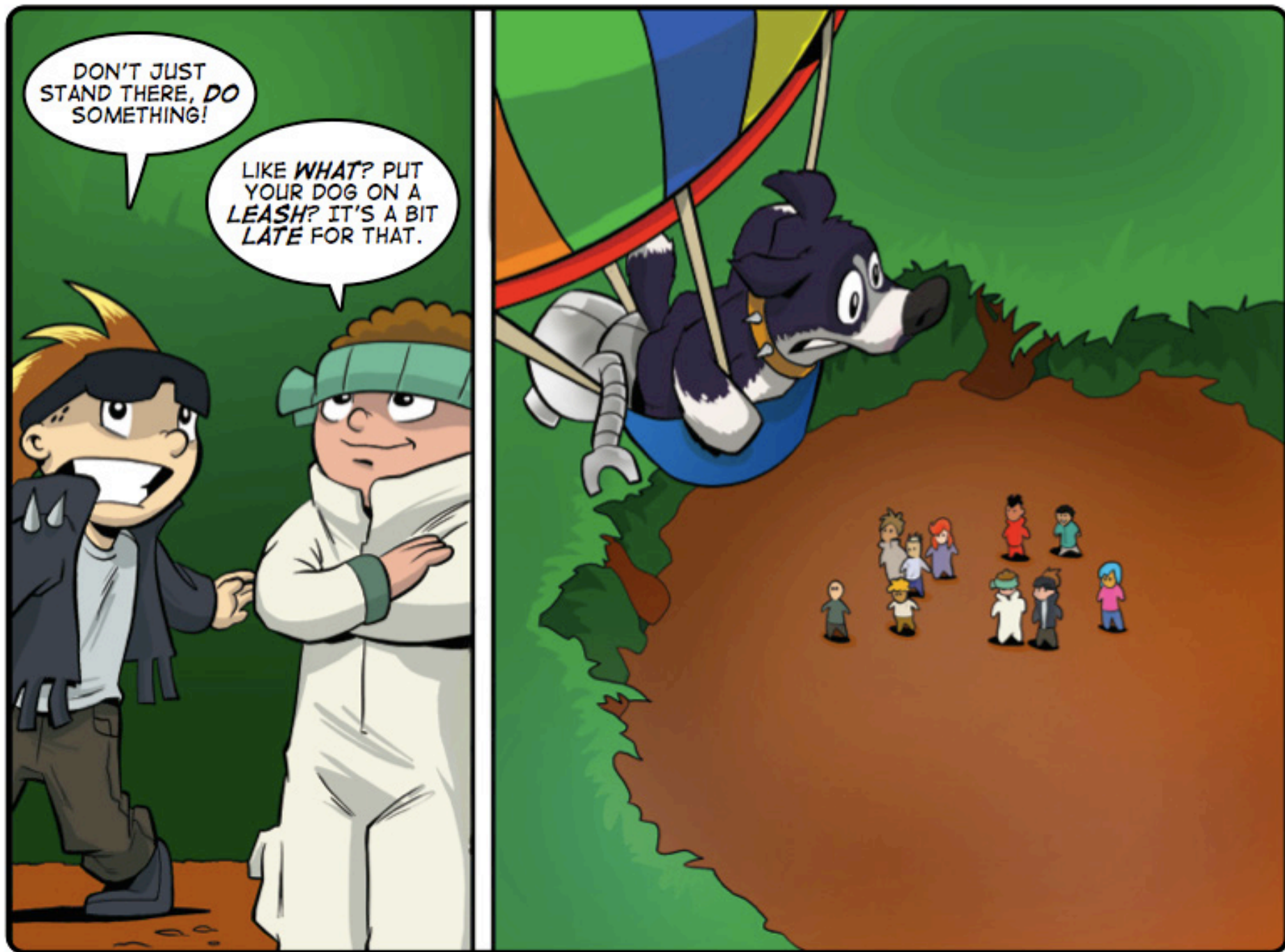
AND SECONDS LATER, THE ROPE FLIES OFF THE SPINDLE.

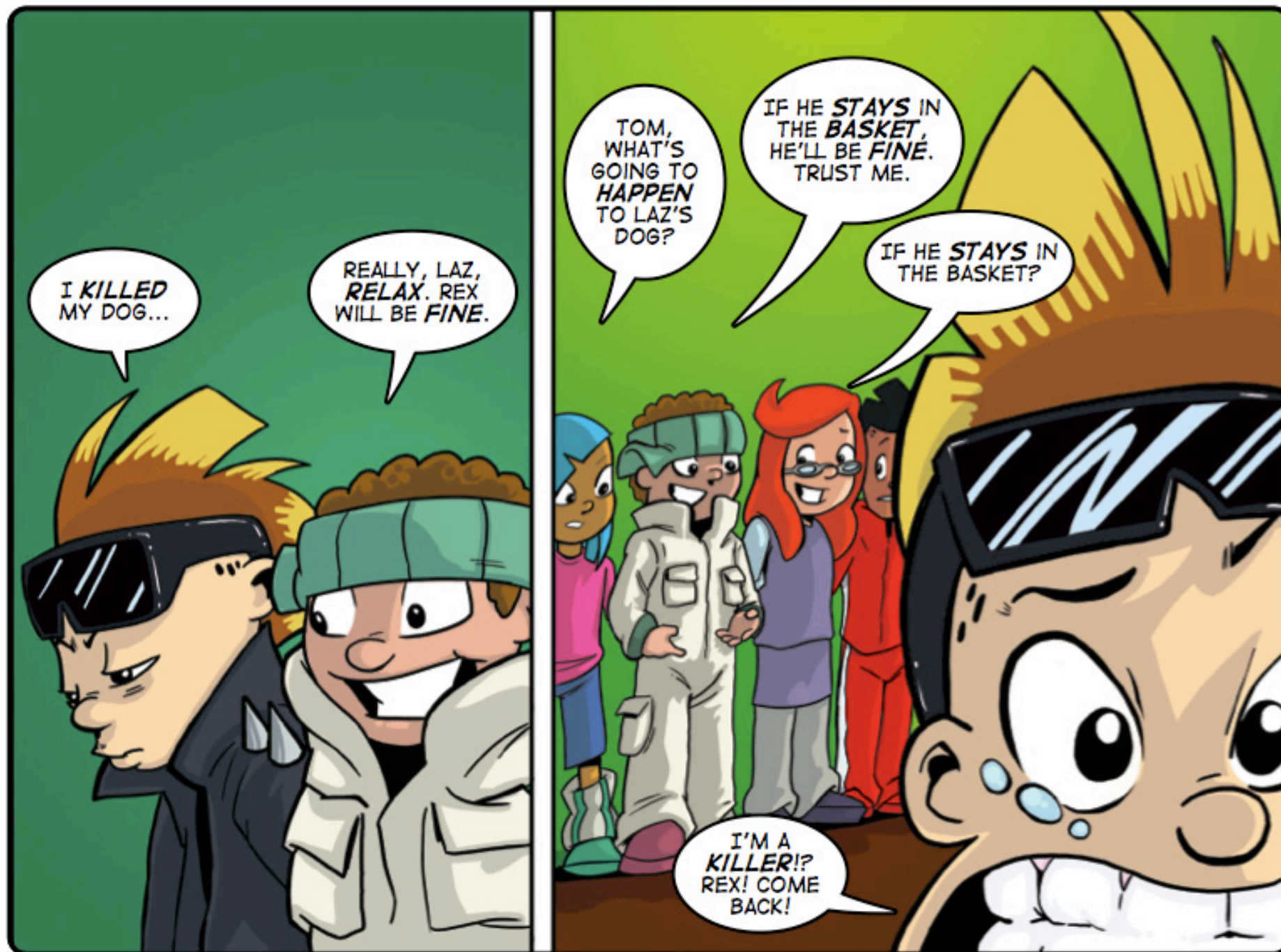


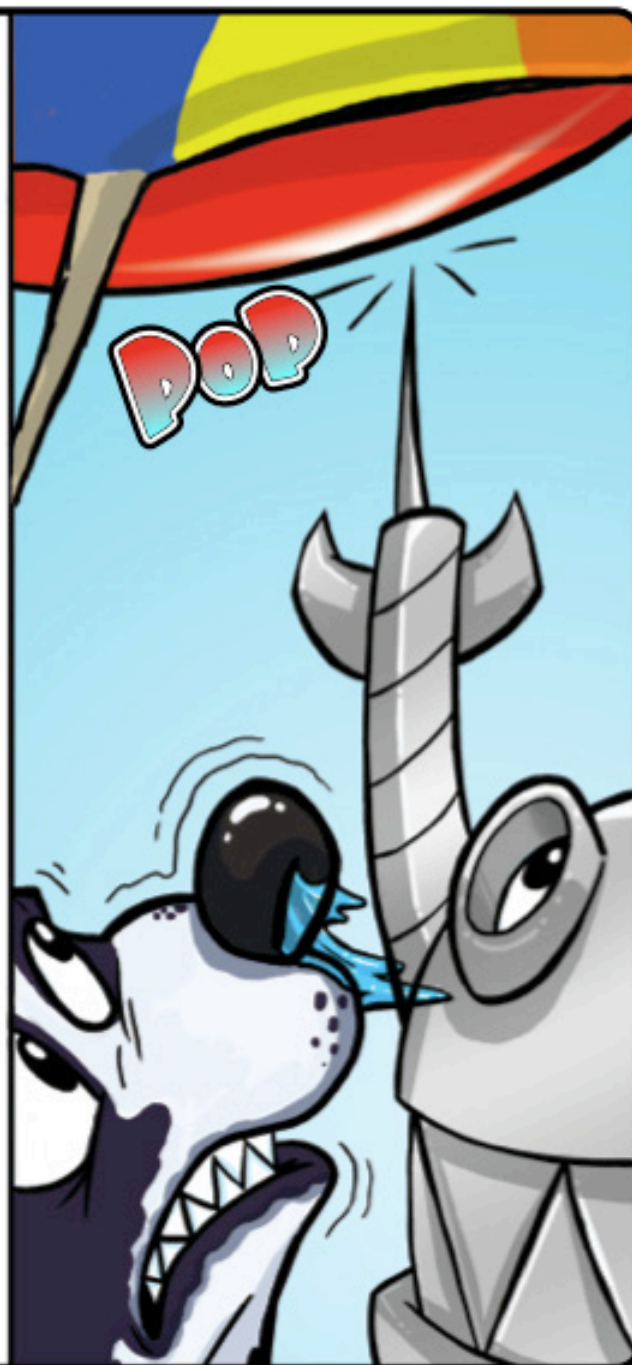
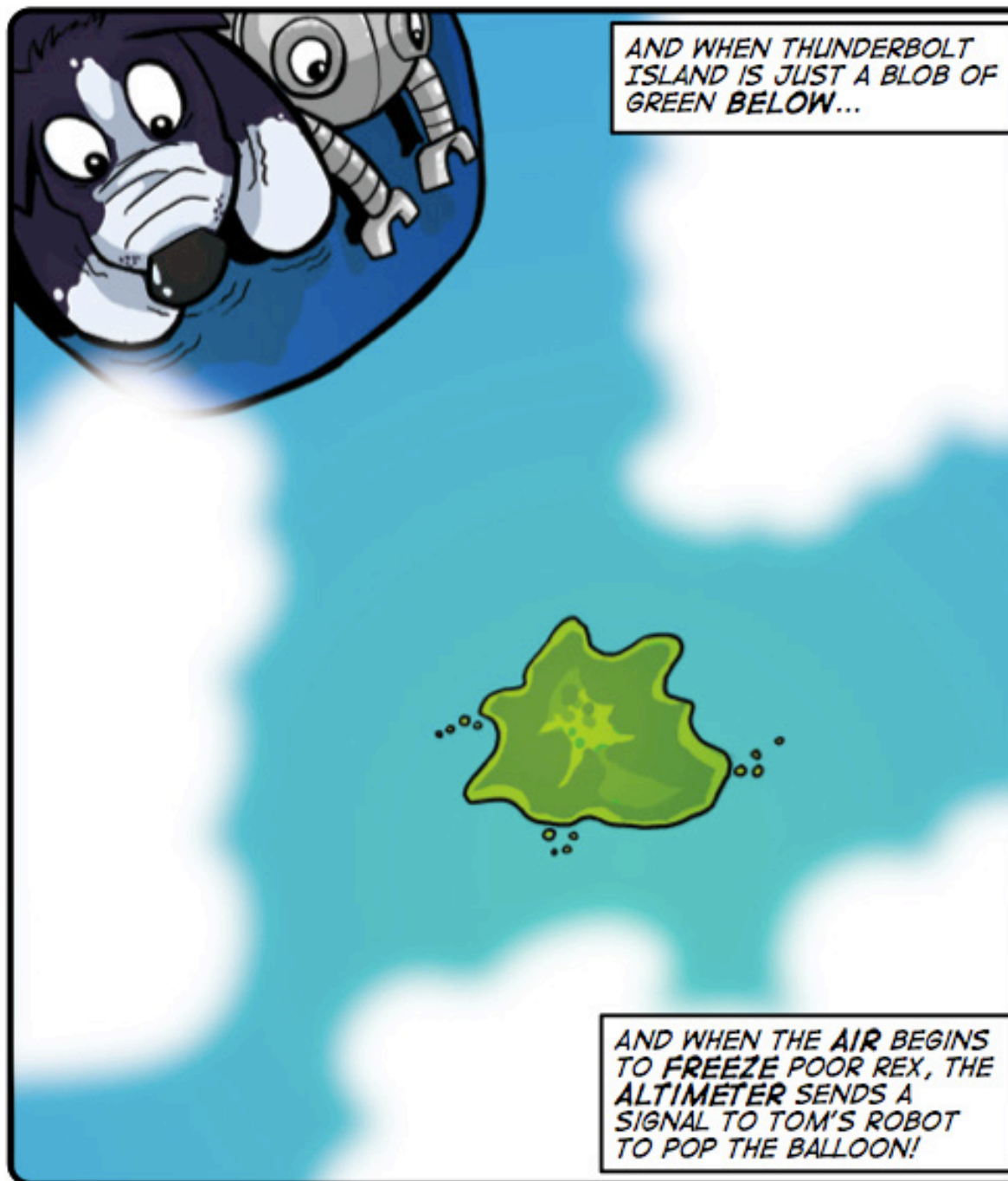














AND WHEN REX
AND THE ROBOT
FLOAT BACK
DOWN TO EARTH,
THE CROWD SEES
THAT ALL ALONG,
THE BALLOON WAS
COVERED BY A
PARACHUTE.

THAT'LL DO,
ROBOT.
THAT'LL DO.

A PARACHUTE!
THE BALLOON WAS
COVERED BY A
PARACHUTE!

REX!

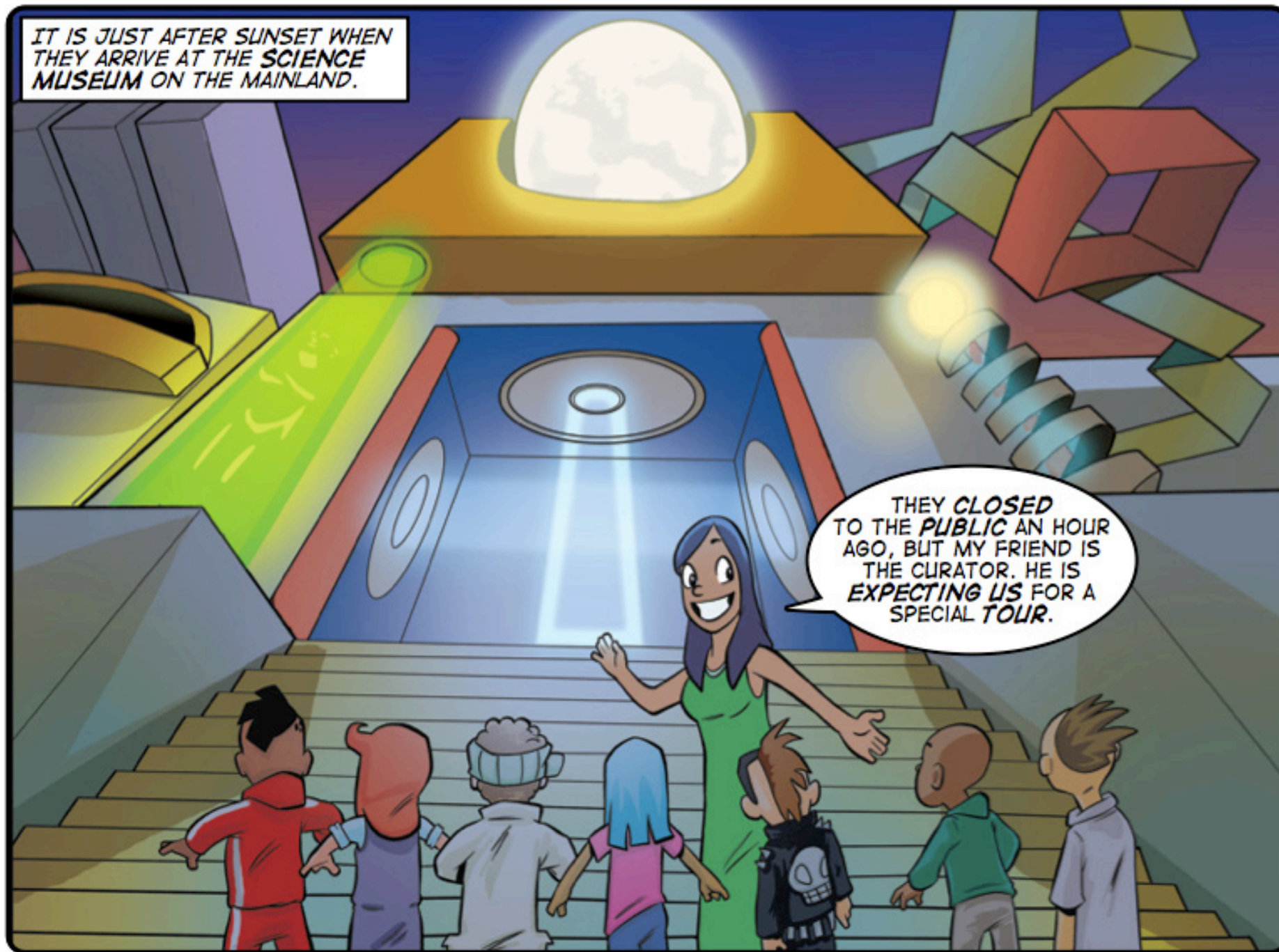


H-H-HOW
DID YOU
DO IT?

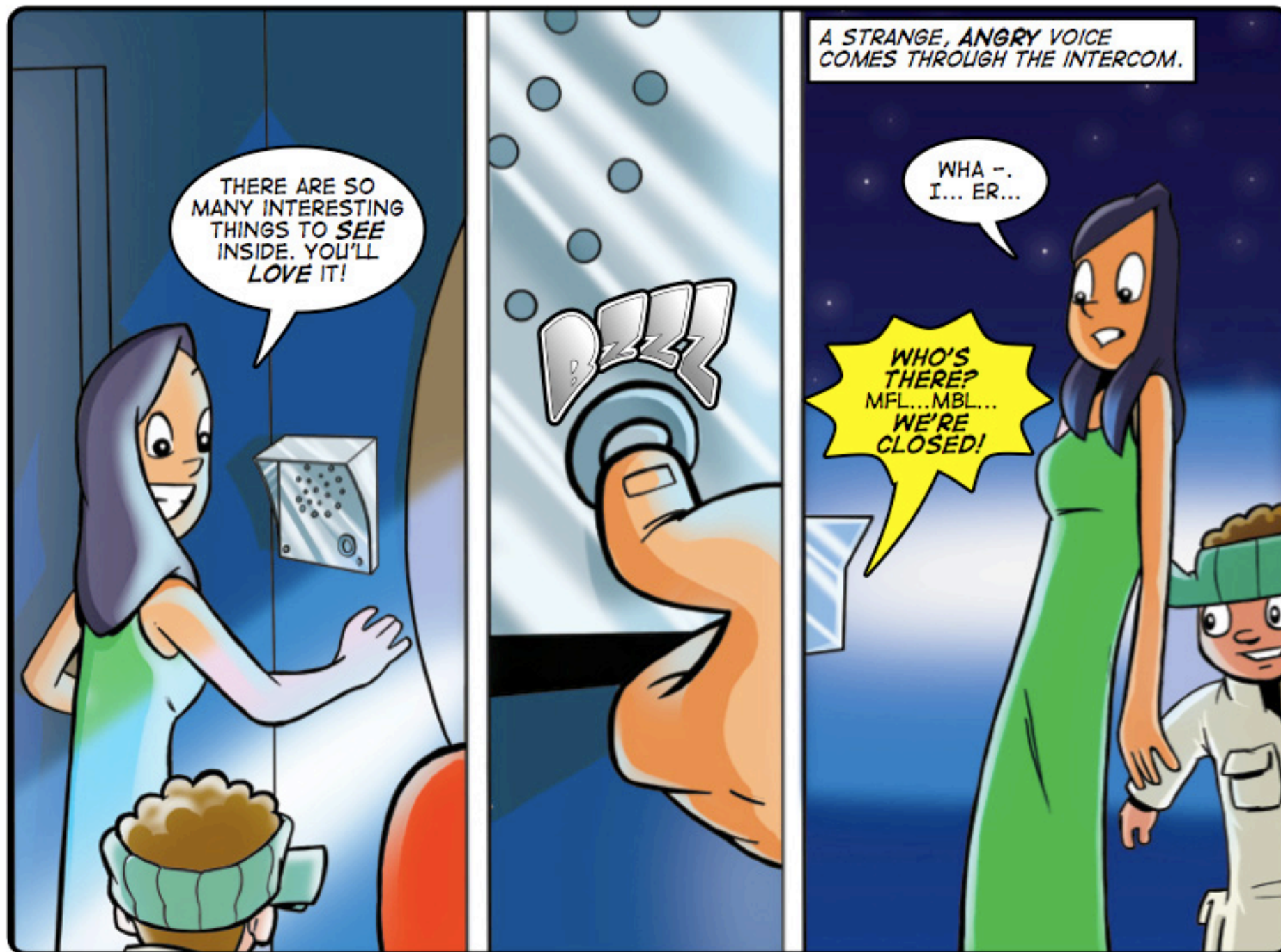
WITH A LITTLE
INFORMATION.
AND A LITTLE HELP
FROM MY ROBOT.

5. PHILOSOPHERS STONE

IT IS JUST AFTER SUNSET WHEN THEY ARRIVE AT THE **SCIENCE MUSEUM** ON THE MAINLAND.



THEY **CLOSED** TO THE **PUBLIC** AN HOUR AGO, BUT MY FRIEND IS THE CURATOR. HE IS **EXPECTING US** FOR A **SPECIAL TOUR**.



BUT, A SECOND LATER, THE STRANGE VOICE IS REPLACED BY THE FAMILIAR SOUND OF TIA'S FRIEND, THE CURATOR.



TIA? UH... FORGIVE ME. NEW STAFF. **DIDN'T KNOW** YOU WERE COMING. MY NEW... UH... **ASSISTANTS** WILL BE WITH YOU SHORTLY.

AS PROMISED, THE CURATOR'S **ASSISTANTS** ARRIVE IN A MINUTE. BUT THEY DON'T LOOK MUCH LIKE **SCIENTISTS**...



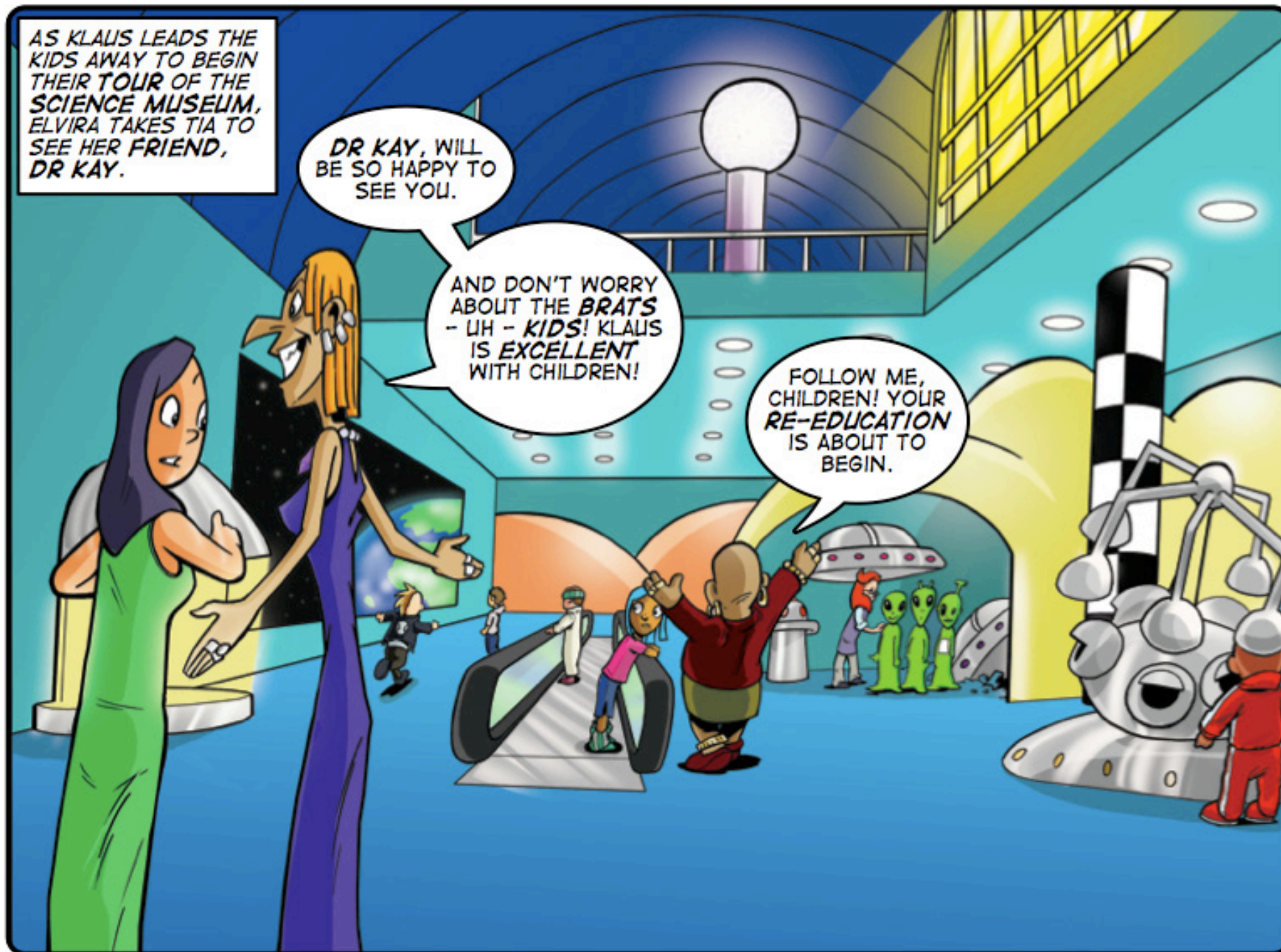
TIA! DR KAY HAS TOLD US ALL ABOUT YOU. I AM **ELVIRA** AND THIS IS **KLAUS**. WE'RE DR KAY'S NEW **ASSISTANTS**.

AS KLAUS LEADS THE KIDS AWAY TO BEGIN THEIR TOUR OF THE SCIENCE MUSEUM, ELVIRA TAKES TIA TO SEE HER FRIEND, DR KAY.

DR KAY, WILL BE SO HAPPY TO SEE YOU.

AND DON'T WORRY ABOUT THE **BRATS** - UH - **KIDS!** KLAUS IS **EXCELLENT** WITH CHILDREN!

FOLLOW ME, CHILDREN! YOUR **RE-EDUCATION** IS ABOUT TO BEGIN.



SECONDS LATER,
TIA IS GONE, AND
THE THUNDERBOLT
KIDS ARE LEFT IN
KLAUS'S HANDS.

ALL RIGHT,
KIDS, LET'S
LEARN ABOUT
SOME OF THE
GREAT
FALLACIES
OF SCIENCE.

BUT, BEING SCEPTICAL CHILDREN, THEY
ARE IMMEDIATELY **SUSPICIOUS**.

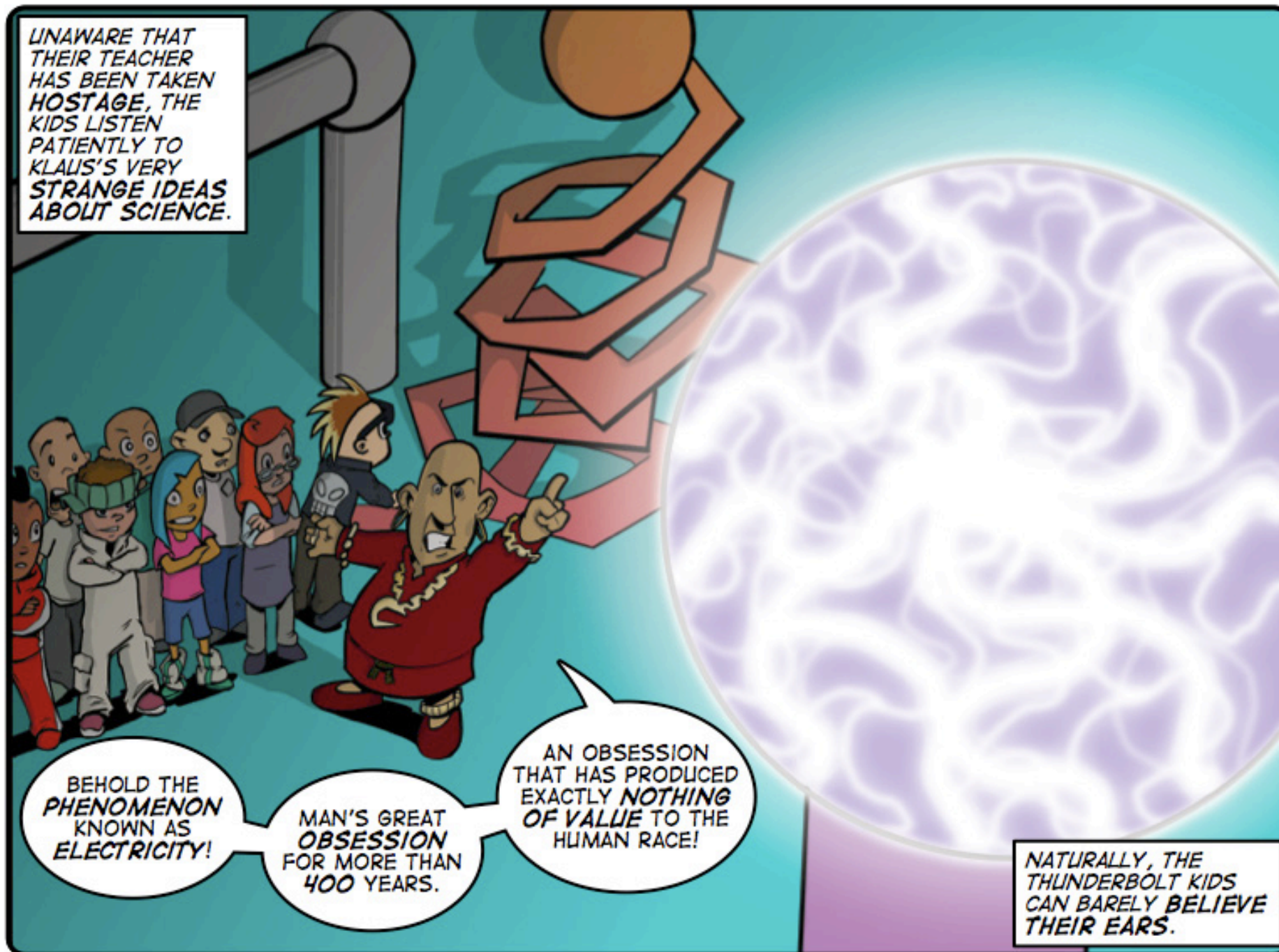
FALLACIES?
MISTAKEN
BELIEFS? THIS GUY
DOESN'T SOUND
LIKE A SCIENTIST
AT ALL.

SOMETHING'S
NOT RIGHT. WE
BETTER KEEP AN
EYE ON HIM.





UNAWARE THAT
THEIR TEACHER
HAS BEEN TAKEN
HOSTAGE, THE
KIDS LISTEN
PATIENTLY TO
KLAUS'S VERY
STRANGE IDEAS
ABOUT SCIENCE.



BEHOLD THE
PHENOMENON
KNOWN AS
ELECTRICITY!

MAN'S GREAT
OBSESSION
FOR MORE THAN
400 YEARS.

AN OBSESSION
THAT HAS PRODUCED
EXACTLY **NOTHING**
OF VALUE TO THE
HUMAN RACE!

NATURALLY, THE
THUNDERBOLT KIDS
CAN BARELY **BELIEVE**
THEIR EARS.

NOR CAN THEY HOLD
THEIR TONGUES.

SO WHAT ABOUT
ELECTRIC *LIGHT*? OR
REFRIGERATION?



YEAH, OR *HEATING*?
OR ANYTHING AT ALL
THAT'S *ELECTRONIC*?



OR ANY OF THE MILLION
INVENTIONS THAT DEPEND
ON ELECTRICITY TO MAKE OUR
*LIVES BETTER, SAFER AND
LONGER!*









AND THEN GUSTAV
REVEALS HIS PLAN.

I HOLD THE
LAST RECIPE
FOR... THE
PHILOSOPHER'S
STONE!

AND YOU
WILL MAKE
IT FOR US!



A **STONE** THAT
TURNS BASE METALS
INTO **GOLD**, THAT'S
RIDIC- UH...

* THIS *ISN'T* A
RECIPE FOR THE
PHILOSOPHER'S
STONE... *

DR KAY STARTS TO
OBJECT, BUT THEN TIA
NUDGES HIM TO STOP...

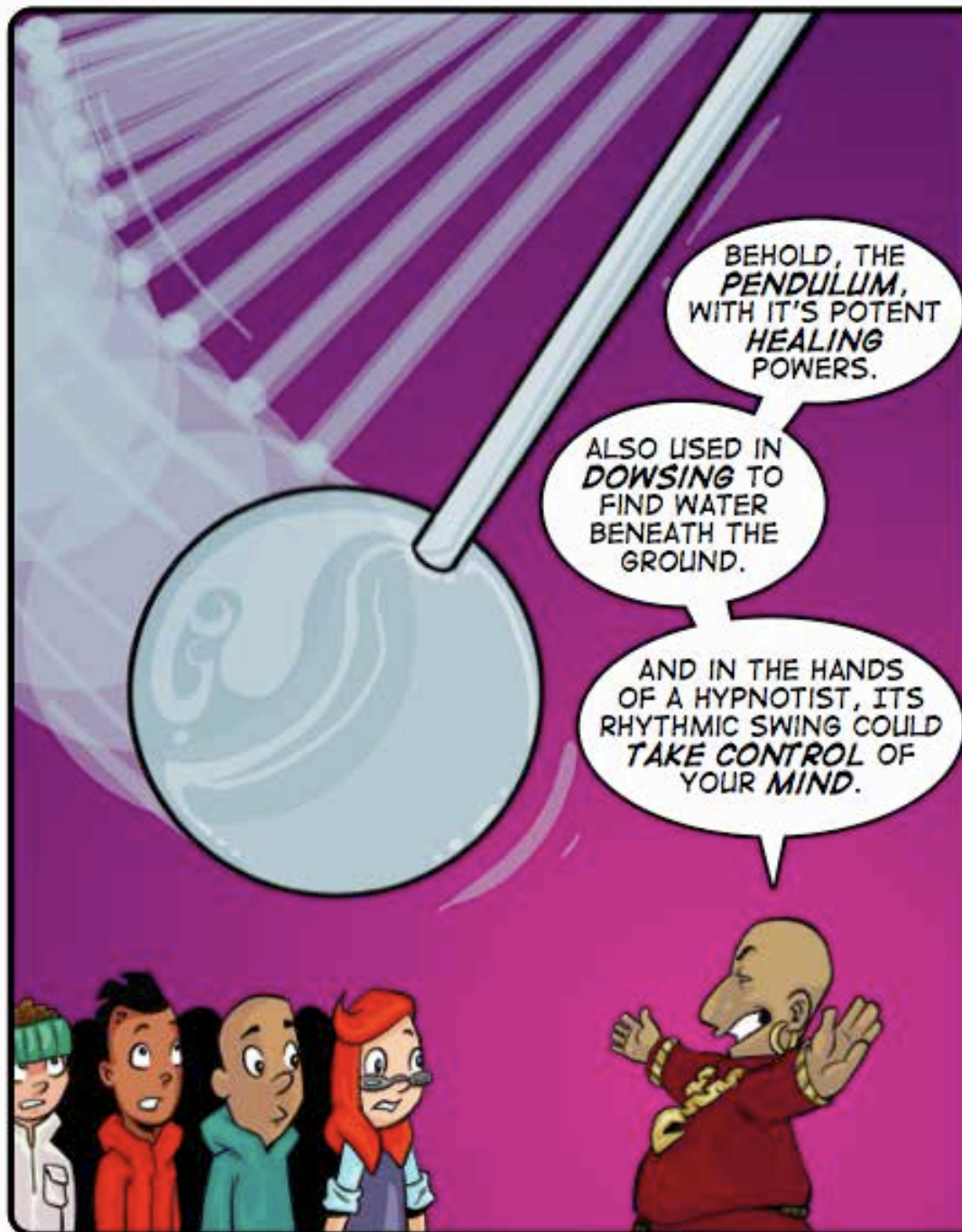


... BECAUSE SHE REALISES THAT THE
RECIPE THEY ARE READING IS
ACTUALLY THEIR MEANS TO **ESCAPE!**

OF COURSE,
WE'LL MAKE
IT. WE DON'T
WANT ANY
TROUBLE.

OH WELL
DONE, TIA!

JUST ONE LOOK TELLS
DR KAY THE SAME THING.



BEHOLD, THE **PENDULUM**,
WITH IT'S POTENT
HEALING
POWERS.

ALSO USED IN
DOWSING TO
FIND WATER
BENEATH THE
GROUND.

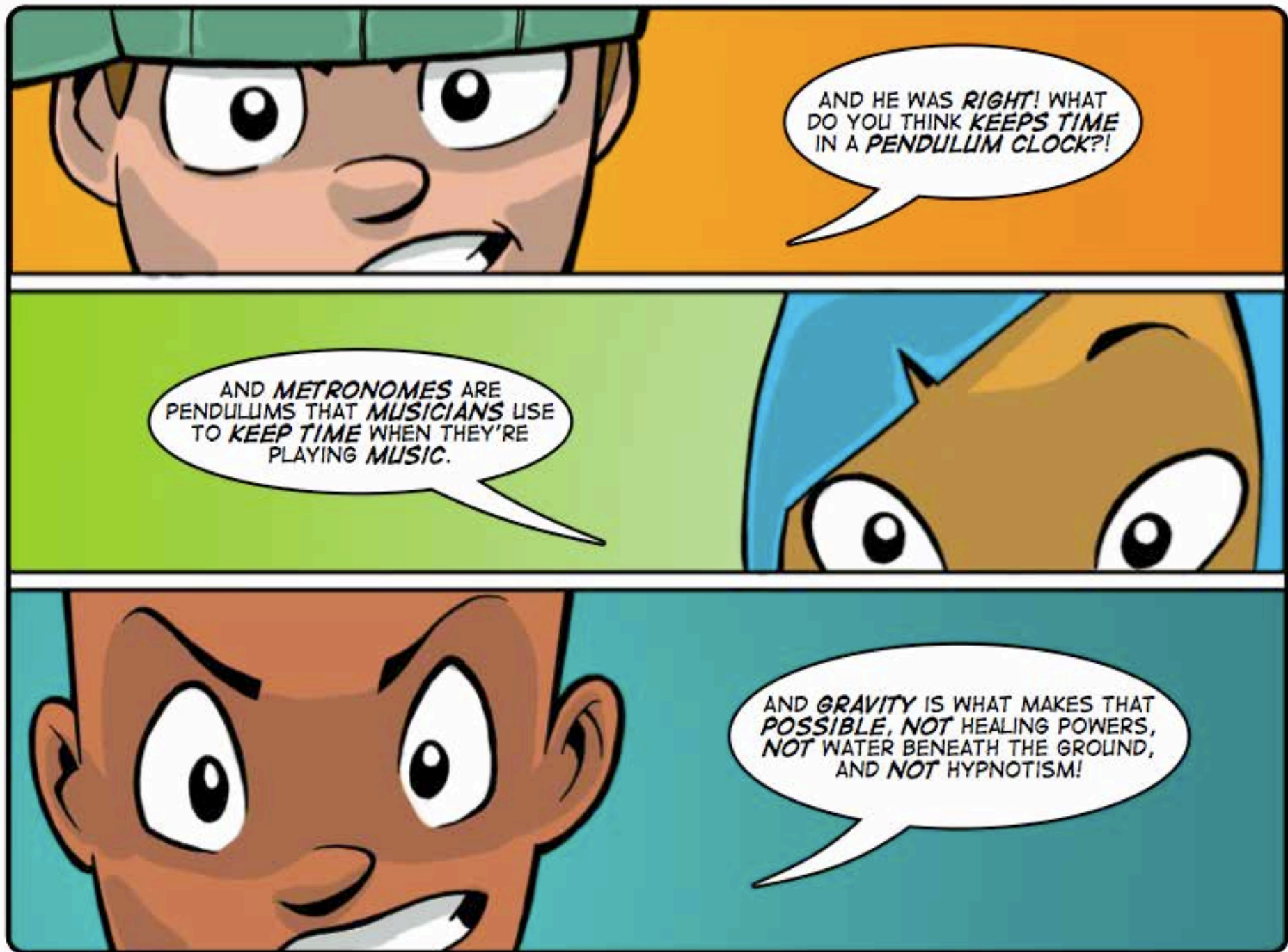
AND IN THE HANDS
OF A HYPNOTIST, ITS
RHYTHMIC SWING COULD
TAKE CONTROL OF
YOUR **MIND**.

TO THE THUNDERBOLT KIDS,
THE PENDULUM MEANS
SOMETHING VERY **DIFFERENT**.

WHAT ABOUT THE
PENDULUM'S USE IN
TIME KEEPING?

GALILEO DID
EXPERIMENTS
WITH A PENDULUM
AND THAT'S WHAT
HE THOUGHT
THEY COULD BE
USED FOR.











WITH THE SNEAKY FLICK OF A SWITCH, JOJO TURNS ON THE GIANT ELECTROMAGNET. AND IF TOM'S WORK IS SUCCESSFUL, IT SHOULD BE WAY MORE POWERFUL THAN NORMAL.

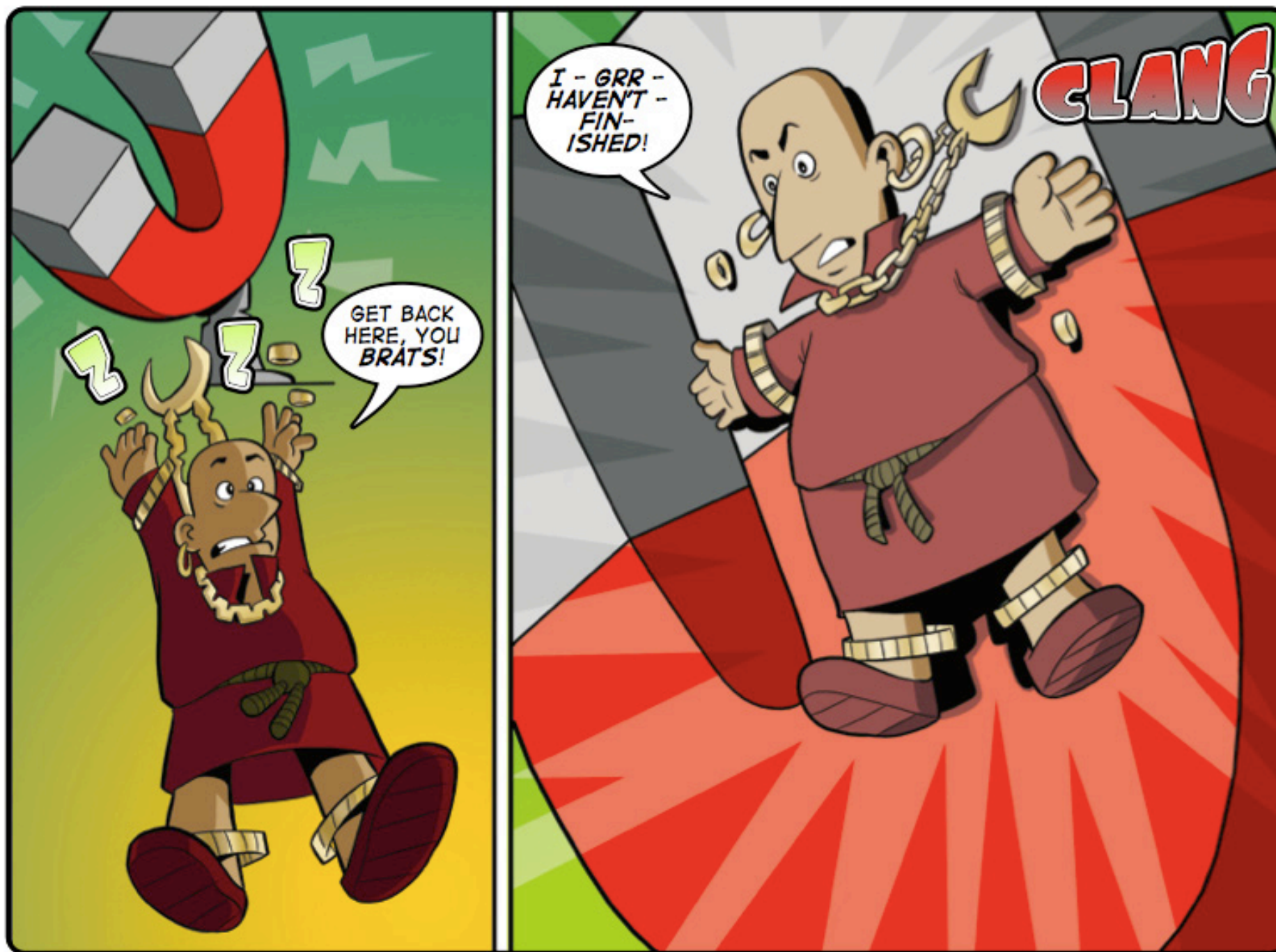


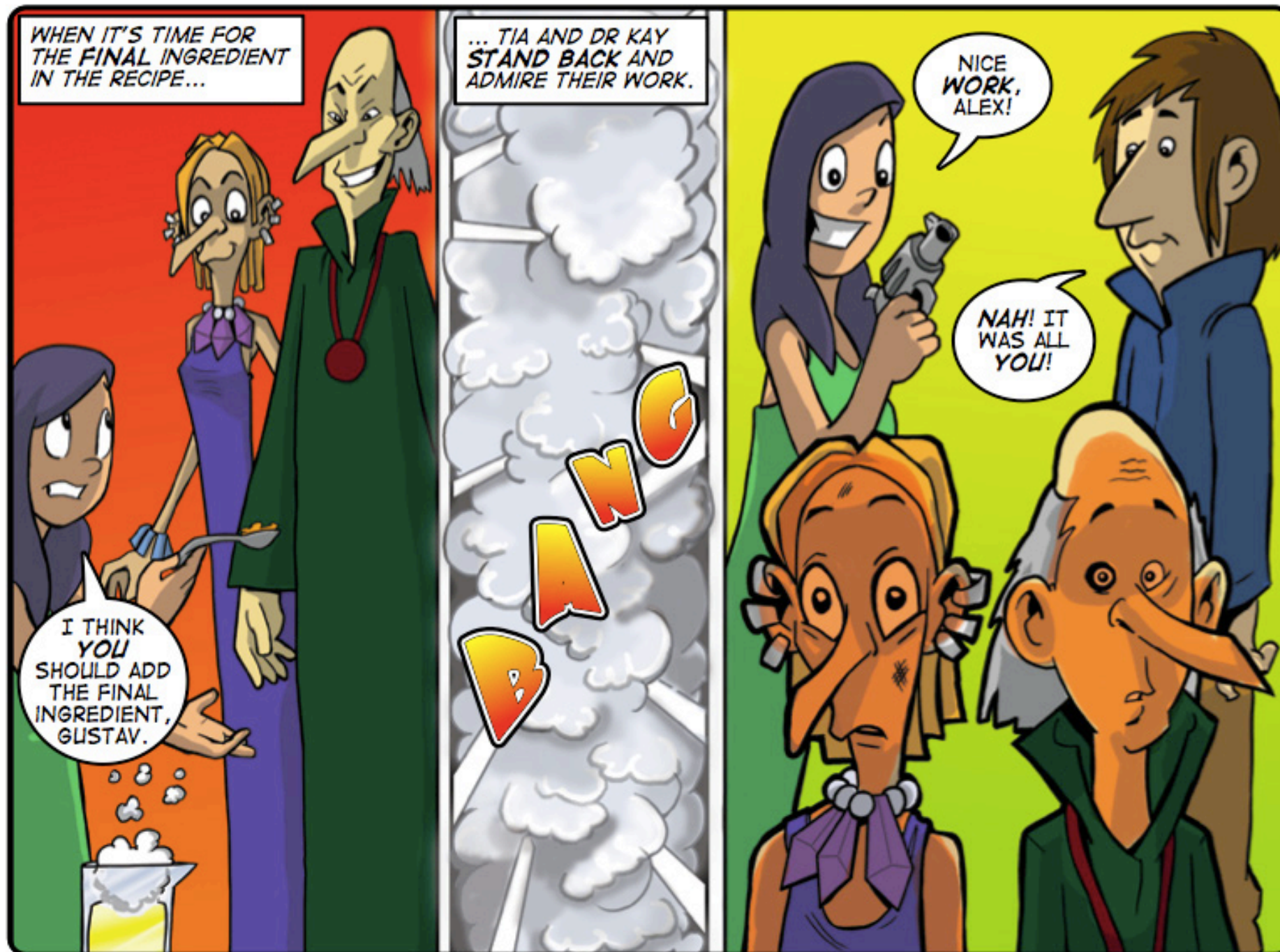
THEN HE TURNS THE POWER TO MAX!



IMMEDIATELY, THE MAGNET STARTS TO PULL... ON KLAUS'S JEWELLERY!







WHEN THE DUST SETTLES (AND WHEN THE ELECTROMAGNET IS SWITCHED OFF) THE POLICE LEAD THE LUCKLESS CRIMINAL TRIO AWAY.

A FIRECRACKER RECIPE? CAN YOU BELIEVE THEY FELL FOR THAT?

FOLKS WHO KNOW NOTHING ABOUT SCIENCE WILL FALL FOR ANYTHING.

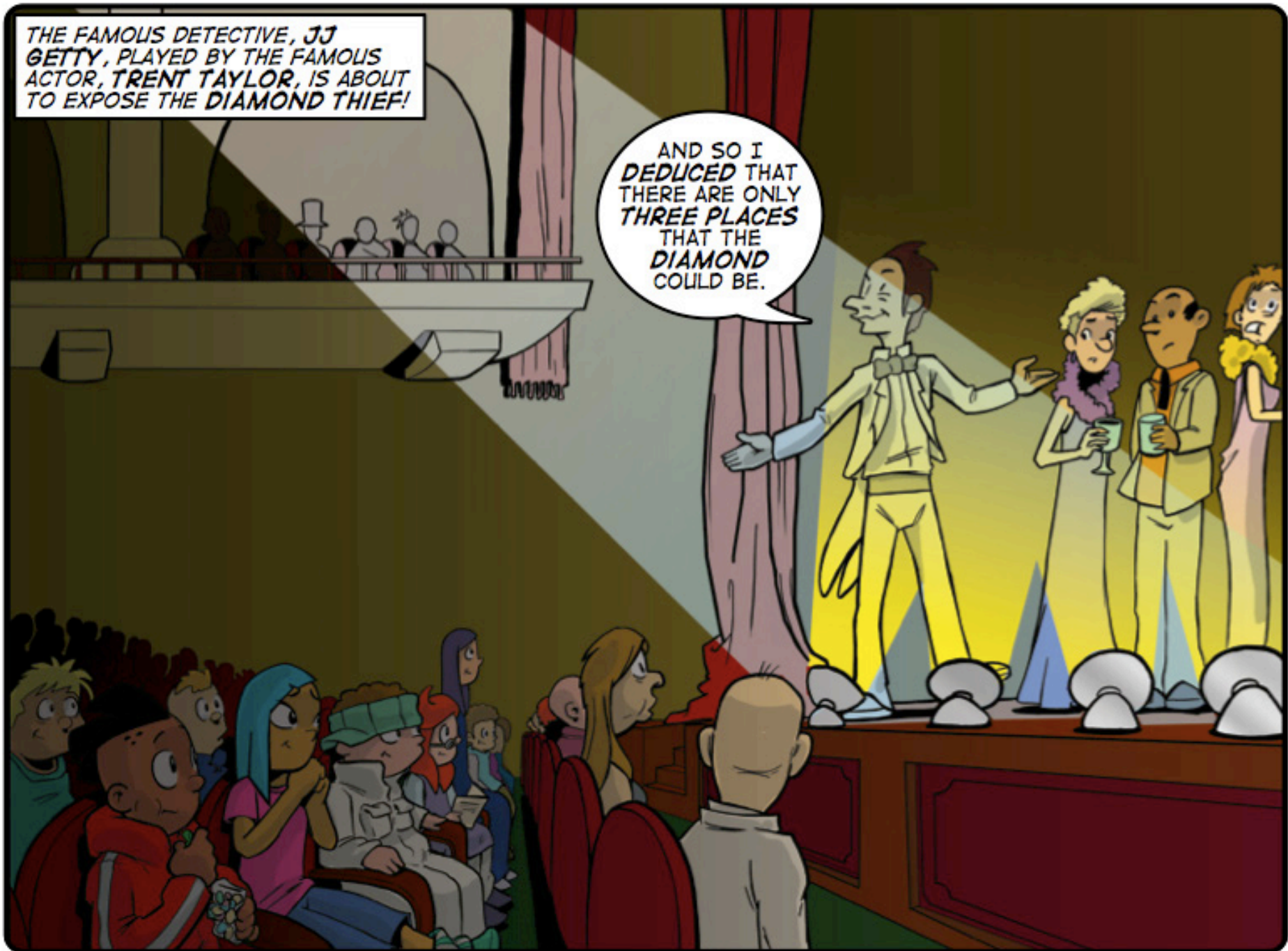
NOW, IF YOU'LL EXCUSE ME, I HAVE TO REPAIR MY ELECTROMAGNET.

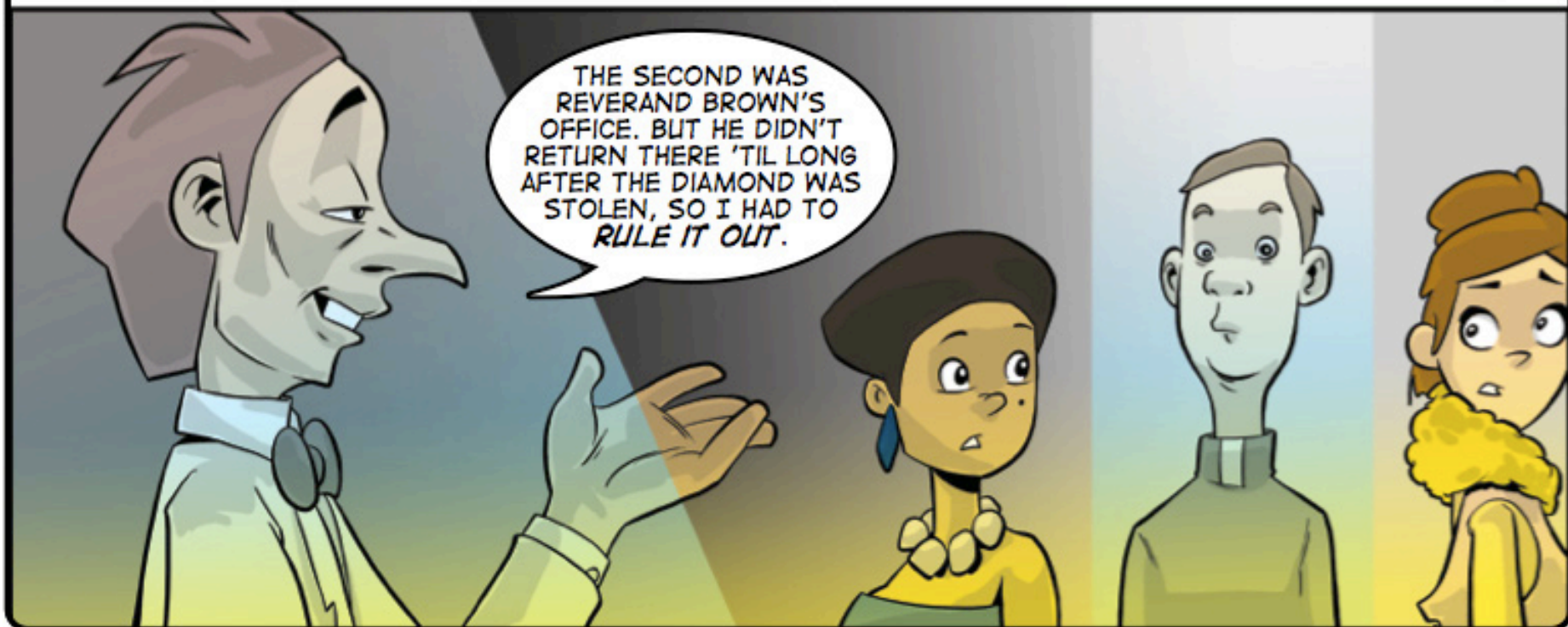
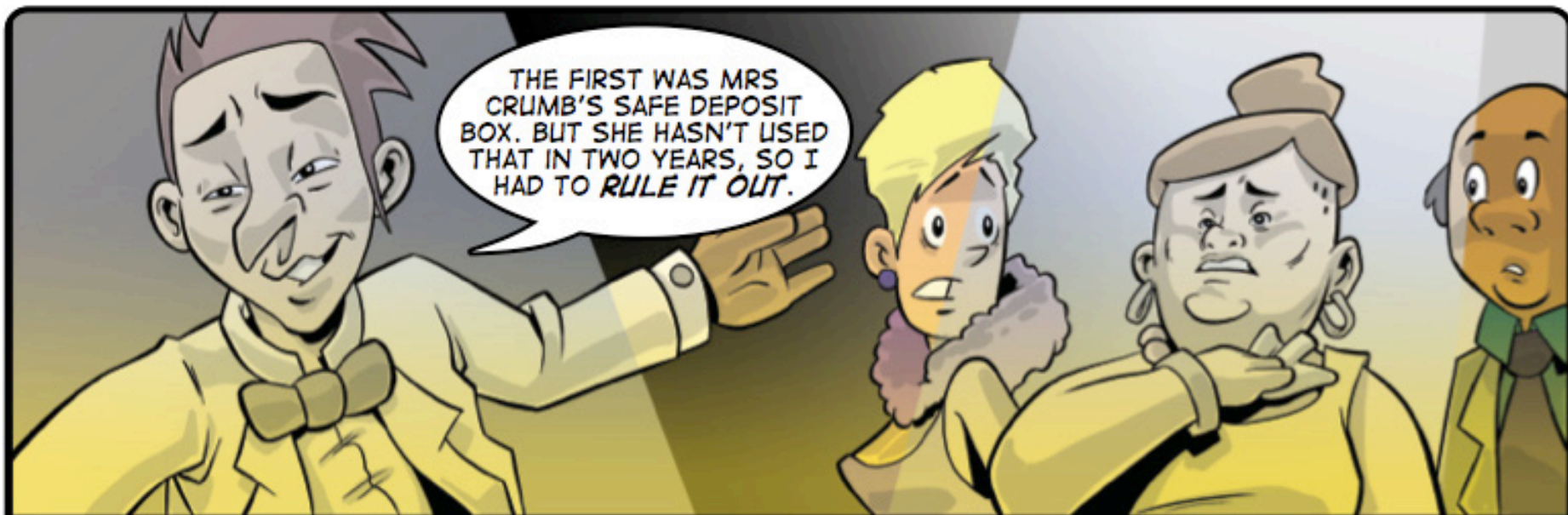
UH... YEAH. SORRY ABOUT THAT!

6. DIAMOND DECEPTION

THE FAMOUS DETECTIVE, JJ
GETTY, PLAYED BY THE FAMOUS
ACTOR, TRENT TAYLOR, IS ABOUT
TO EXPOSE THE DIAMOND THIEF!

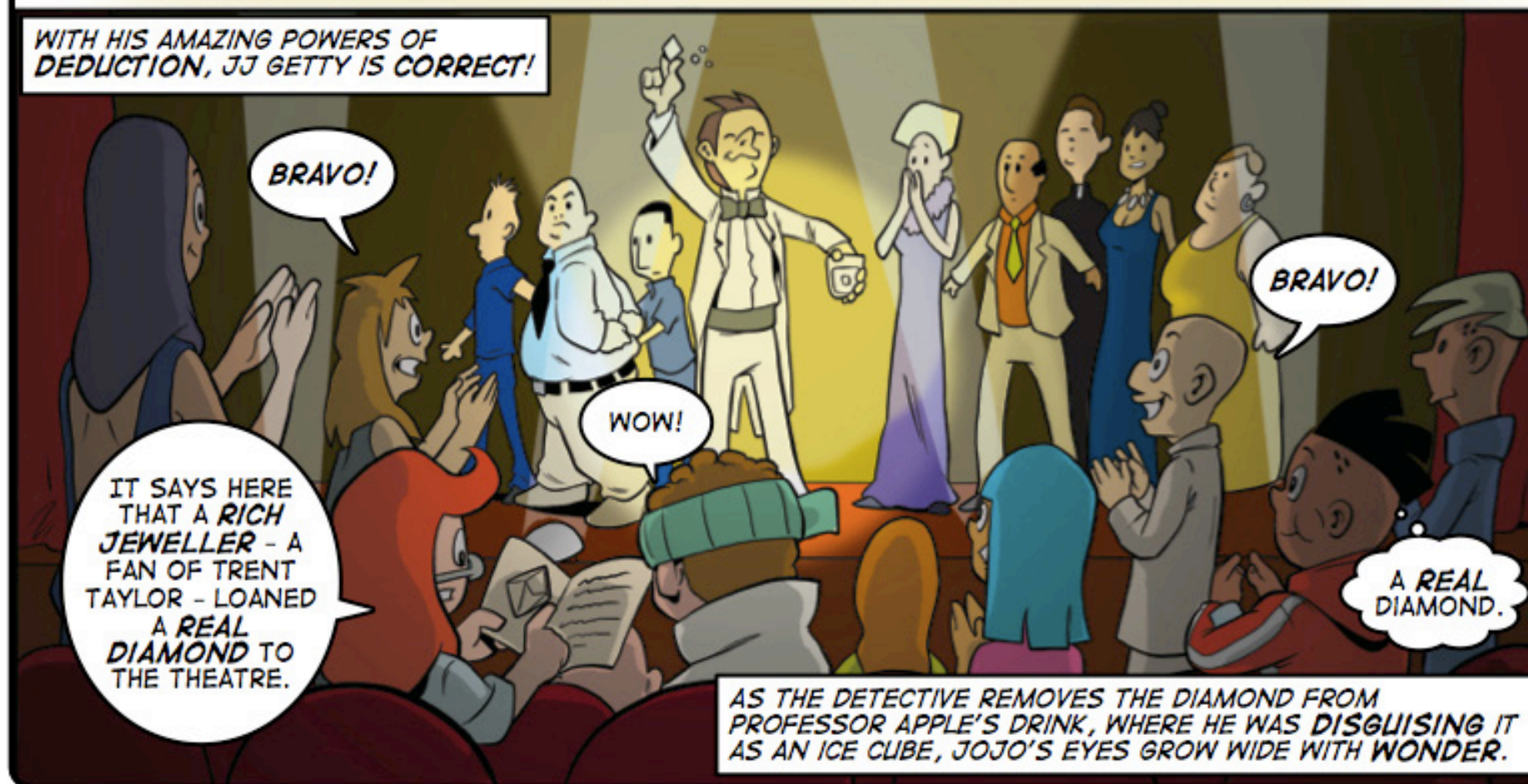
AND SO I
DEDUCED THAT
THERE ARE ONLY
THREE PLACES
THAT THE
DIAMOND
COULD BE.







WITH HIS AMAZING POWERS OF
DEDUCTION, JJ GETTY IS CORRECT!



AFTER THE SHOW, JOJO EAVESDROPS WHILE HE THINKS OF A PLAN TO SEE THE **DIAMOND**.

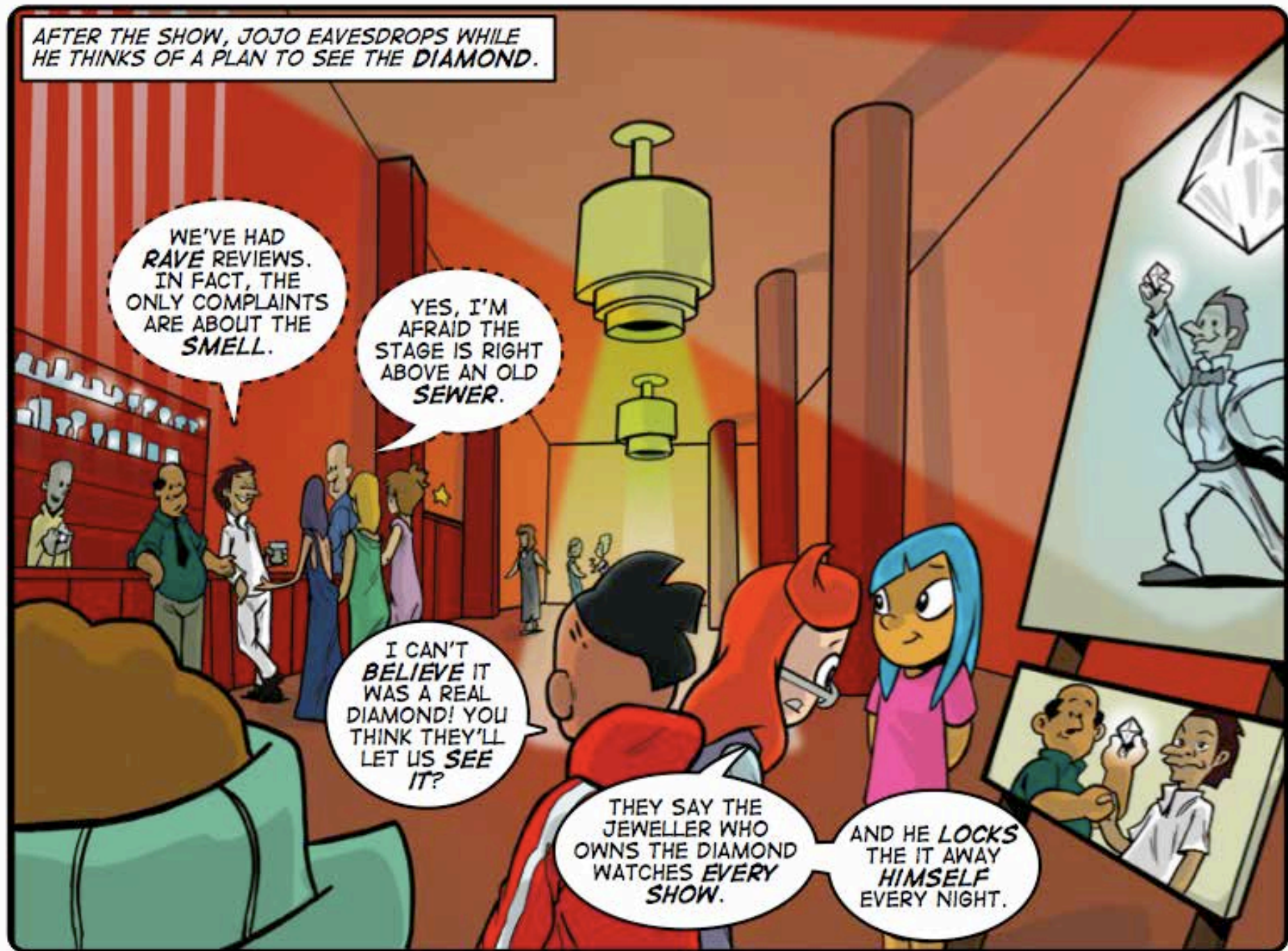
WE'VE HAD **RAVE** REVIEWS. IN FACT, THE ONLY COMPLAINTS ARE ABOUT THE **SMELL**.

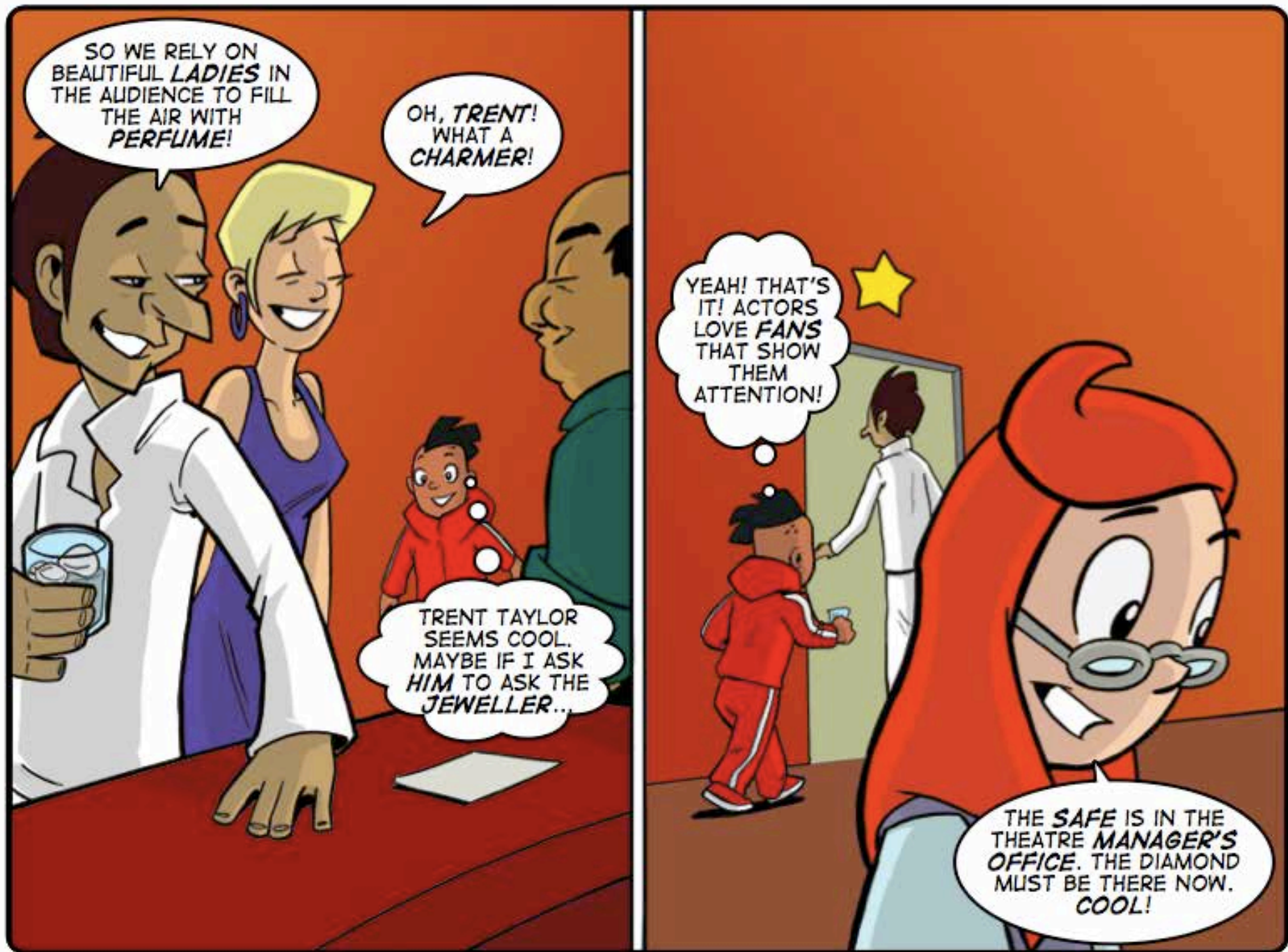
YES, I'M AFRAID THE STAGE IS RIGHT ABOVE AN OLD **SEWER**.

I CAN'T **BELIEVE** IT WAS A REAL **DIAMOND**! YOU THINK THEY'LL LET US **SEE** IT?

THEY SAY THE JEWELLER WHO OWNS THE **DIAMOND** WATCHES **EVERY SHOW**.

AND HE **LOCKS** THE IT AWAY **HIMSELF** EVERY NIGHT.





JOJO HEADS
TOWARDS THE
ACTORS'
DRESSING
ROOMS TO MEET
TRENT TAYLOR.



BUT THEN HE HEARS THE
ACTOR SAY SOMETHING
THAT MAKES HIM **DROP** THE
CANDY HE'S HOLDING.

LADIES AND
GENTLEMEN, IT
IS DONE. THE
DIAMOND IS
OURS!



AND THEN HE
SEES SOMETHING
THAT **PARALYSES**
HIM WITH **SHOCK**.

CAN YOU
BELIEVE THAT
THE FOOL FELL
FOR THE **SAME**
TRICK HE HAS
WATCHED **ON**
STAGE EVERY
NIGHT?!

AS HE TURNED TO
OPEN THE **SAFE**, I
DROPPED THE **REAL**
DIAMOND IN MY
DRINK AND GAVE
HIM THE **FAKE**.



JUST AS JOJO BEGINS TO
REALISE THAT TRENT TAYLOR IS
NOTHING MORE THAN A THIEF...

NOW THE ONLY THING
LEFT TO DO IS TO MAKE
OUR *GETAWAY*.

... A PAIR OF HEAVY HANDS
GRABS HIM FROM BEHIND.

YOU
SHOULDN'T
LISTEN AT
DOORS,
BOY!

?!

IN THE FOYER OF THE THEATRE, TIA GETS THE THUNDERBOLT KIDS READY TO LEAVE.



HAS ANYONE
SEEN **JOJO**?

NOPE.

NOT SINCE
THE SHOW.

NOT **ME**.

NOT FOR
ABOUT 20
MINUTES

BUT THEN SHE REALISES THAT
ONE OF THEM IS **MISSING**.



WHEN TIA ASKS
FOR HELP, THE
THEATRE
SECURITY GUARD
REASSURES HER.



DON'T
WORRY, MISS.
HAPPENS ALL
THE TIME.

THERE'S AN
ARCADE NEXT
DOOR. KIDS
ALWAYS **SNEAK**
OUT TO PLAY
GAMES.



AND THEN AN
OLD LADY SAYS
SOMETHING THAT
GIVES HER HOPE.



I SAW A **YOUNG**
BOY RUN OVER TO THE
ARCADE ABOUT 20
MINUTES AGO.



SEE?
TOLD YA!



A SECOND LATER, TIA IS OUT THE DOOR WITH THE SECURITY GUARD.

DON'T
MOVE! I'LL
BE BACK IN A
MINUTE.

BUT...

AND THE
MOMENT
SHE'S GONE,
SOPHIE,
FARRAH AND
TOM BEGIN
TO WORK
OUT WHAT
HAS REALLY
HAPPENED TO
THEIR FRIEND.

BUT THIS
DOESN'T MAKE
SENSE. JUST
BECAUSE "KIDS
ALWAYS SNEAK
OUT," THAT
DOESN'T MEAN
JOJO DID.

YEAH! AND DID
YOU SEE THAT OLD
LADY'S **GLASSES**?
SHE COULDN'T TELL
THE **DIFFERENCE**
BETWEEN **JOJO** AND
AN **ELEPHANT**!

I'M WITH YOU.
NOTHING **LOGICAL**
IN THAT!

WITH THE SIMPLE USE OF LOGIC, THEY ARE
ALREADY ONE STEP CLOSER TO FINDING JOJO.

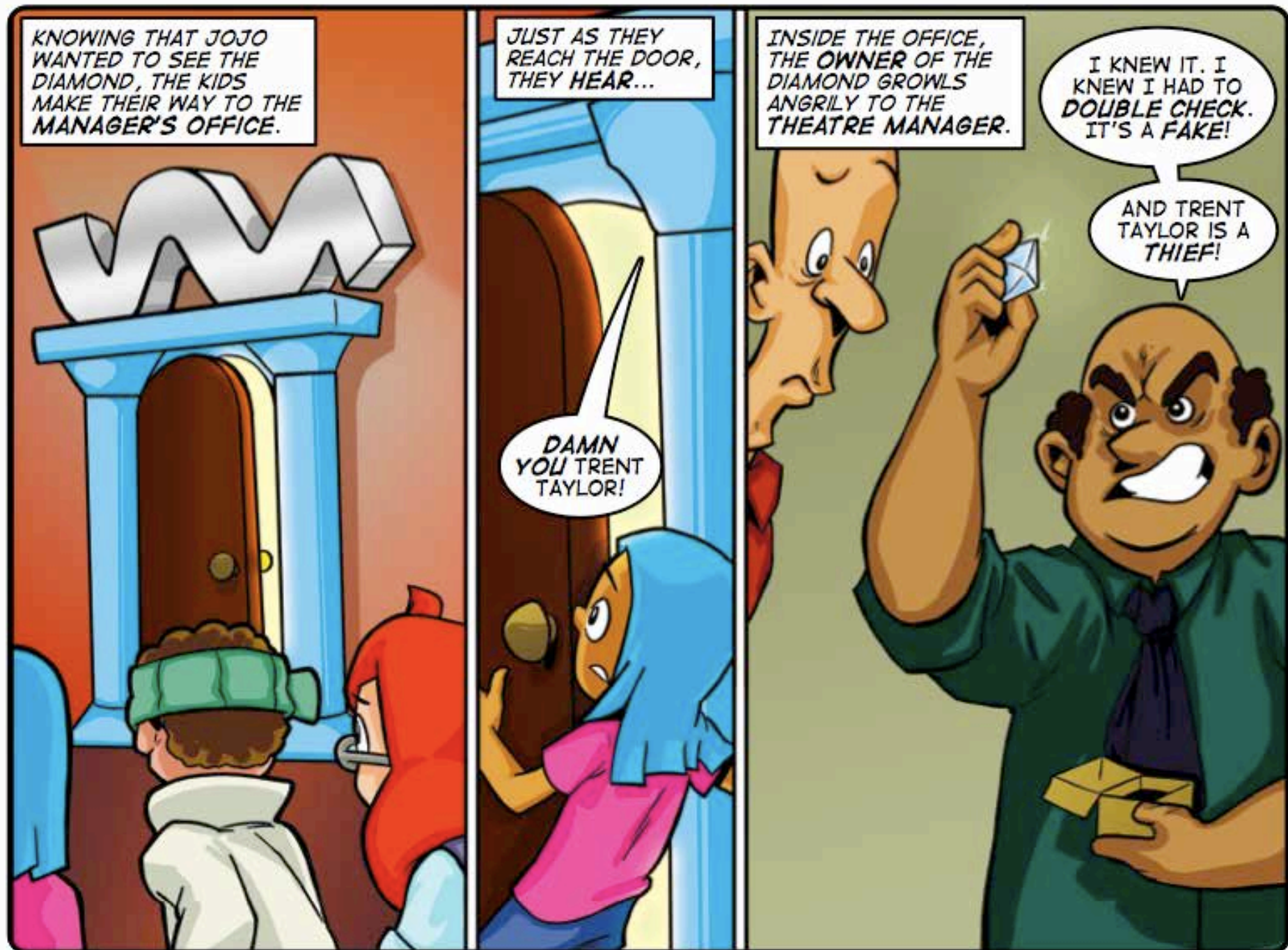
JO CAN BE A LITTLE
NUTS SOMETIMES, BUT
HE **WOULDN'T LEAVE**
THE BUILDING.

AND BESIDES, HE'D BE
MORE INTERESTED IN
SEEING THE DIAMOND THAN
IN PLAYING VIDEO GAMES.

SO HE WOULDN'T
LEAVE? AND HE'D
RATHER SEE THE
DIAMOND THAN PLAY
VIDEO GAMES?

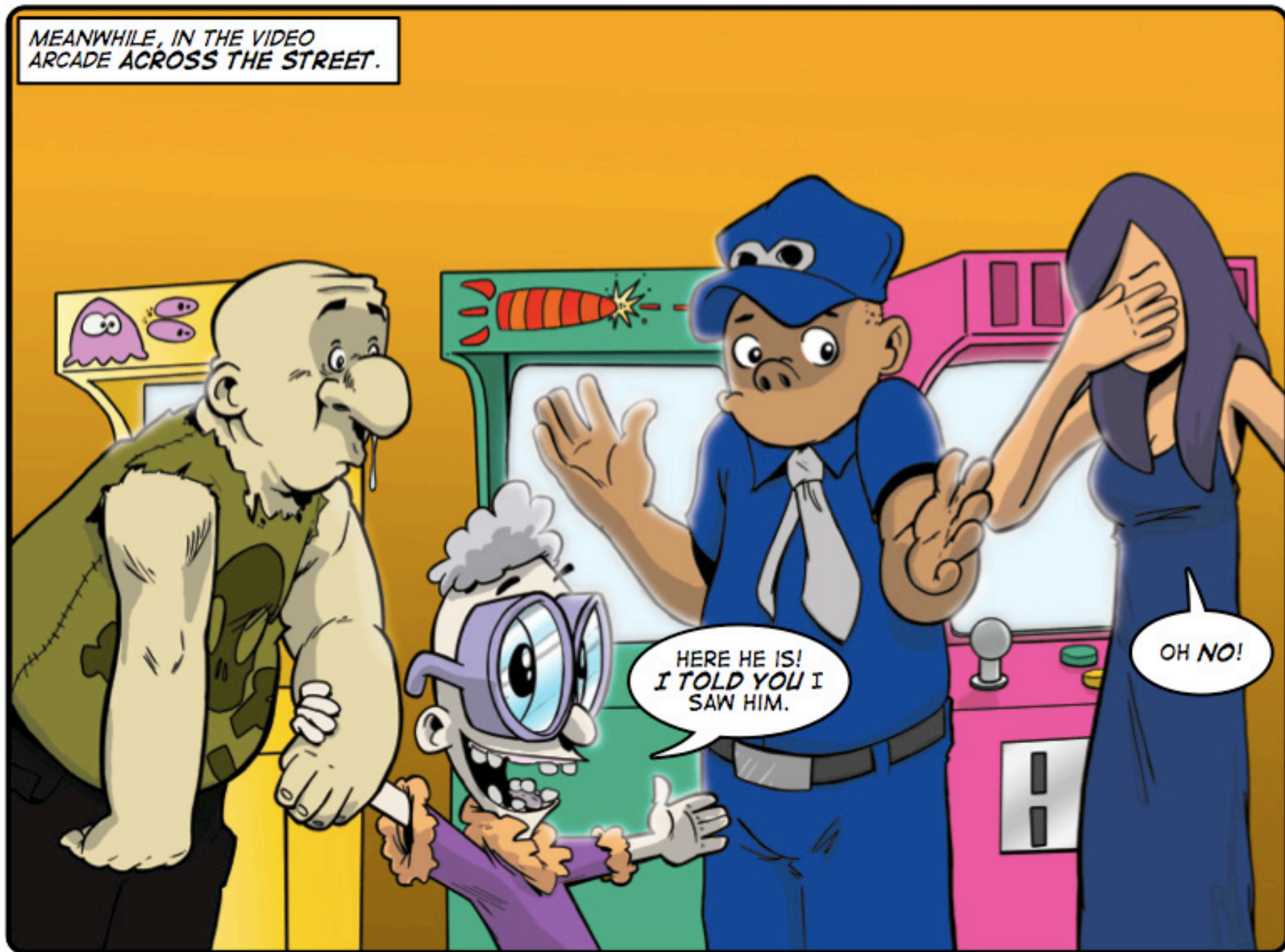
IF YOU'RE **BOTH**
RIGHT, THEN HE
MUST STILL BE **IN**
THE BUILDING!







MEANWHILE, IN THE VIDEO
ARCADE ACROSS THE STREET.



MEANWHILE, BACK IN THE
THEATRE MANAGER'S OFFICE.

BUT HOW COULD
HE HAVE **SWITCHED**
THE **DIAMONDS**?
HE WAS STANDING
RIGHT **IN FRONT**
OF ME?!

BUT FARRAH
KNOWS THAT
WHAT THE
DIAMOND
OWNER SAYS
IS **NOT**
LOGICAL.

EXCEPT
WHILE YOU
WERE
OPENING
THE SAFE...

THEN HE
WOULD HAVE HAD
A FEW **SECONDS**
TO SWITCH THE
DIAMOND WHILE
YOUR **BACK** WAS
TURNUD.

BUT THE JEWELLER
DOESN'T TAKE KINDLY
TO FARRAH'S THEORY.

YOU THINK
I'M **STUPID**?

MAYBE THE
REASON **YOUR**
FRIEND IS
MISSING IS
BECAUSE **HE**
STOLE MY
DIAMOND!



AND SOPHIE DOESN'T TAKE KINDLY TO THE
LACK OF LOGIC IN THE JEWELLER'S THEORY.

JUST BECAUSE
BOTH ARE MISSING
UNDER THE SAME ROOF,
DOES **NOT** MEAN THEY'RE
CONNECTED!



THE THUNDERBOLT KIDS FIND THEIR WAY TO THE ACTORS' DRESSING ROOMS.

IF FARRAH IS RIGHT ABOUT TRENT TAYLOR, *THEN* THAT'S WHO WE NEED TO SEE.

AND IT DOESN'T TAKE MUCH TO CONVINCE THE **JEWELER** TO COME WITH THEM.

WHAT'S IN *HERE*?

CHECK *THIS* OUT. JOJO WAS EATING *THESE SWEETS* ALL THROUGH THE PLAY.

WHEN THEY OPEN THE DOOR THEY FOLLOW THE TRAIL OF CANDY TO THE SARCOPHAGUS.



WHEN FARRAH OPENS THE SARCOPHAGUS, JOJO CAN'T WAIT TO SPEAK.

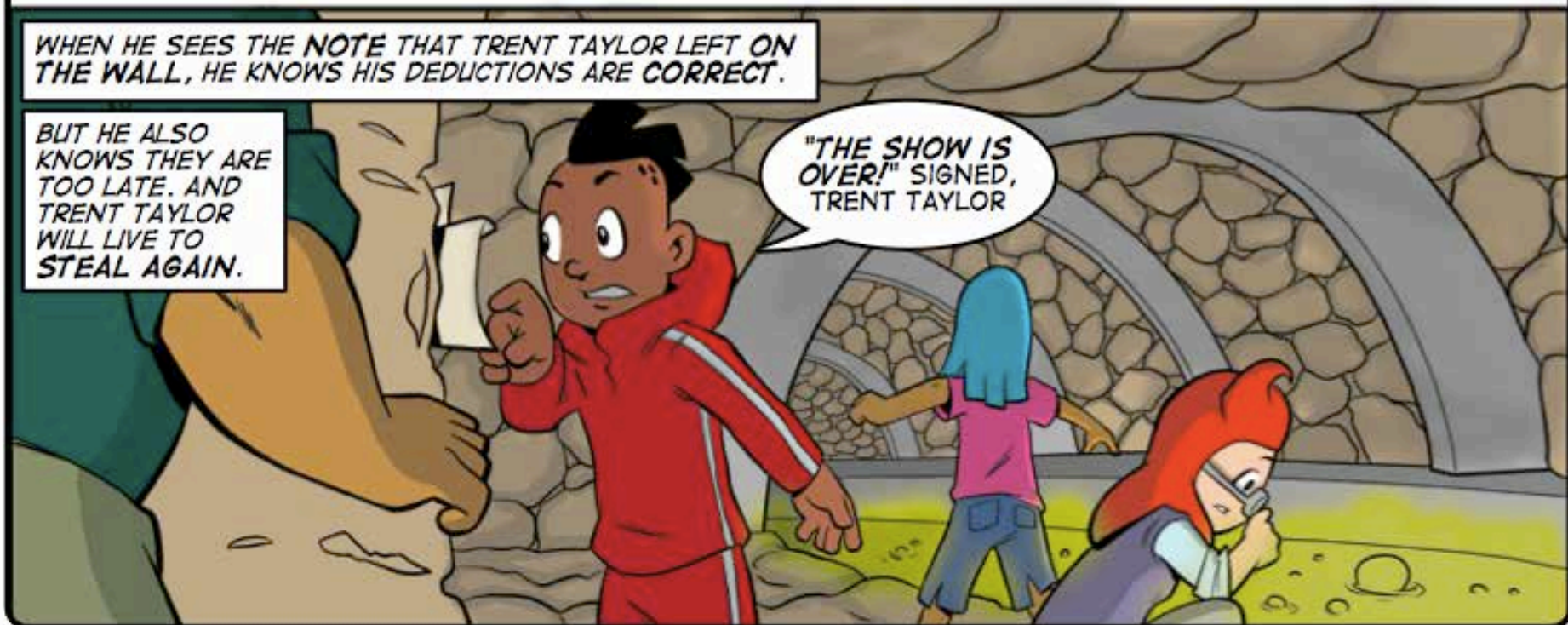


JOJO USED ALL THE THINGS HE HEARD TRENT TAYLOR SAY TO DEDUCE WHERE HE HAD GONE.



WHEN HE SEES THE NOTE THAT TRENT TAYLOR LEFT ON THE WALL, HE KNOWS HIS DEDUCTIONS ARE CORRECT.

BUT HE ALSO KNOWS THEY ARE TOO LATE. AND TRENT TAYLOR WILL LIVE TO STEAL AGAIN.



BACK ON STAGE, A
FEW MINUTES LATER.

YES,
INSPECTOR,
YOU *HEARD*
CORRECTLY:
TRENT TAYLOR
STOLE THE
DIAMOND.

OH, BOY,
ARE *YOU* A
SIGHT FOR
SORE EYES!

I THINK I
PREFER
BEING "ON"
THE STAGE
TO BEING
UNDER IT.

THAT IS *NOT* THE
BOY AT ALL. DON'T
BE *RIDICULOUS*!

7. THE VOLCANO

THE ONE THING THAT IS EASY TO **PREDICT** ABOUT THE THUNDERBOLT KIDS, IS THAT THEY WILL ALWAYS DO THINGS **DIFFERENTLY** FROM EACH OTHER.

BETCHYA MINE GOES FURTHEST! IT'S GOT THE BIGGEST **WINGSPAN**

ANY SIMPLE DESIGN WORKS. IT ALL DEPENDS ON HOW YOU **THROW** IT.

THAT'S NOT PAPER! **WHAT** DID YOU USE TO MAKE YOUR PLANE?

DRINKING **STRAWS** AND CELLOPHANE. I THOUGHT I'D EXPERIMENT.





A LITTLE WHILE LATER, ON TOP OF THE HILL, THE **SOURCE** OF THE SMOKE IS OBVIOUS. AND RIGHT AWAY, THE KIDS FORGET ABOUT THEIR AEROPLANES.

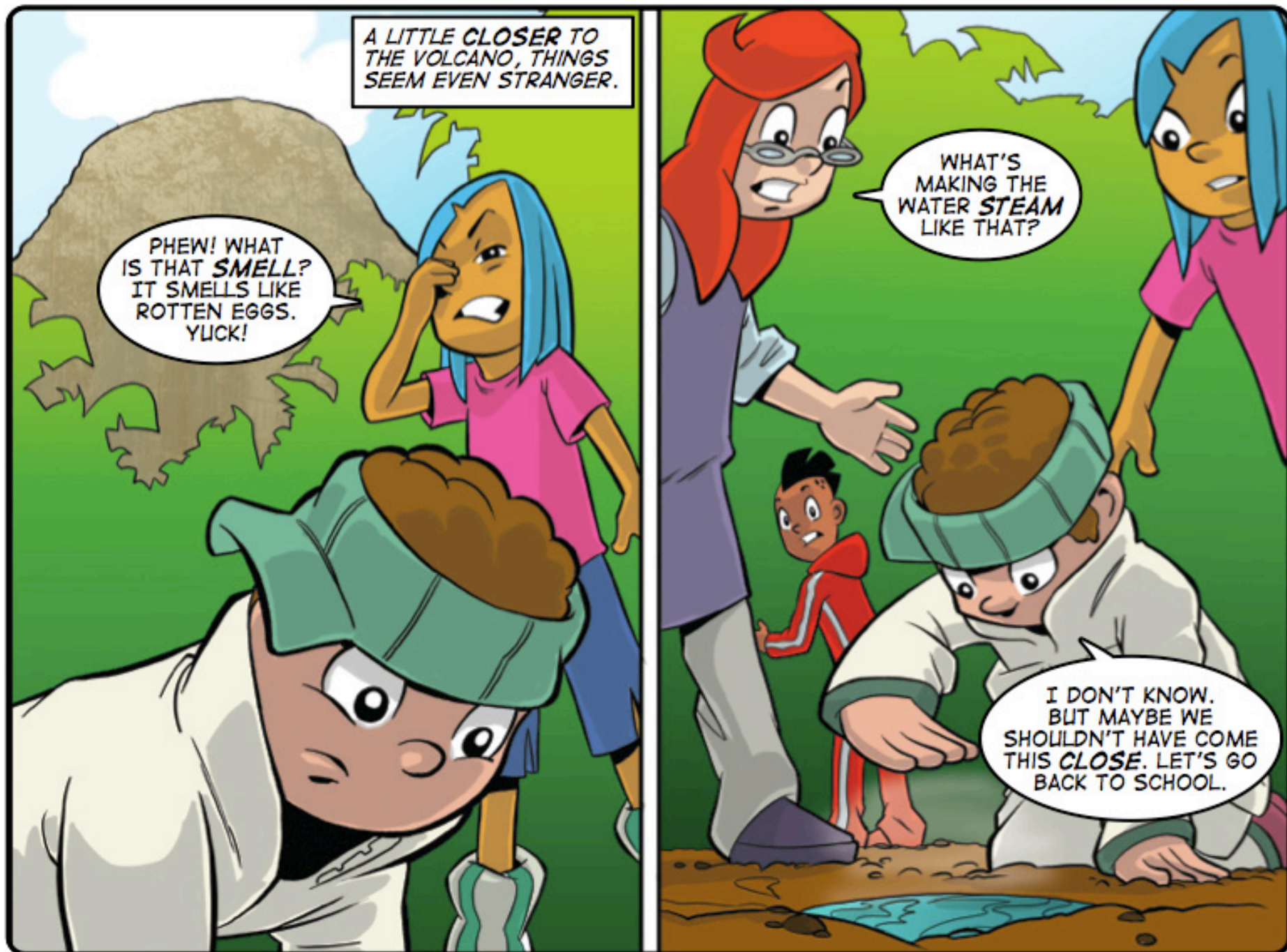
IT'S COMING FROM THE **VOLANCO!** BUT TIA SAID IT WAS **DORMANT**.

WHAT DO YOU THINK IT **MEANS?**

IT **MEANS** NOTHING UNTIL WE KNOW MORE.

WELL WHAT ARE WE WAITING FOR, LET'S TAKE A CLOSER **LOOK!**





BACK AT SCHOOL, THE THUNDERBOLT KIDS FIND LAZLO PREACHING TO A CROWD. RIGHT AWAY, THEY SMELL TROUBLE!

YUCK! THAT
EGGY SMELL IS
EVERYWHERE!

I TELL YOU,
**THE END IS
COMING!**

WHAT IS
THAT IDIOT
UP TO
NOW?



FIRST, THE
SCHOOL WAS
ATTACKED BY
SNAKES.

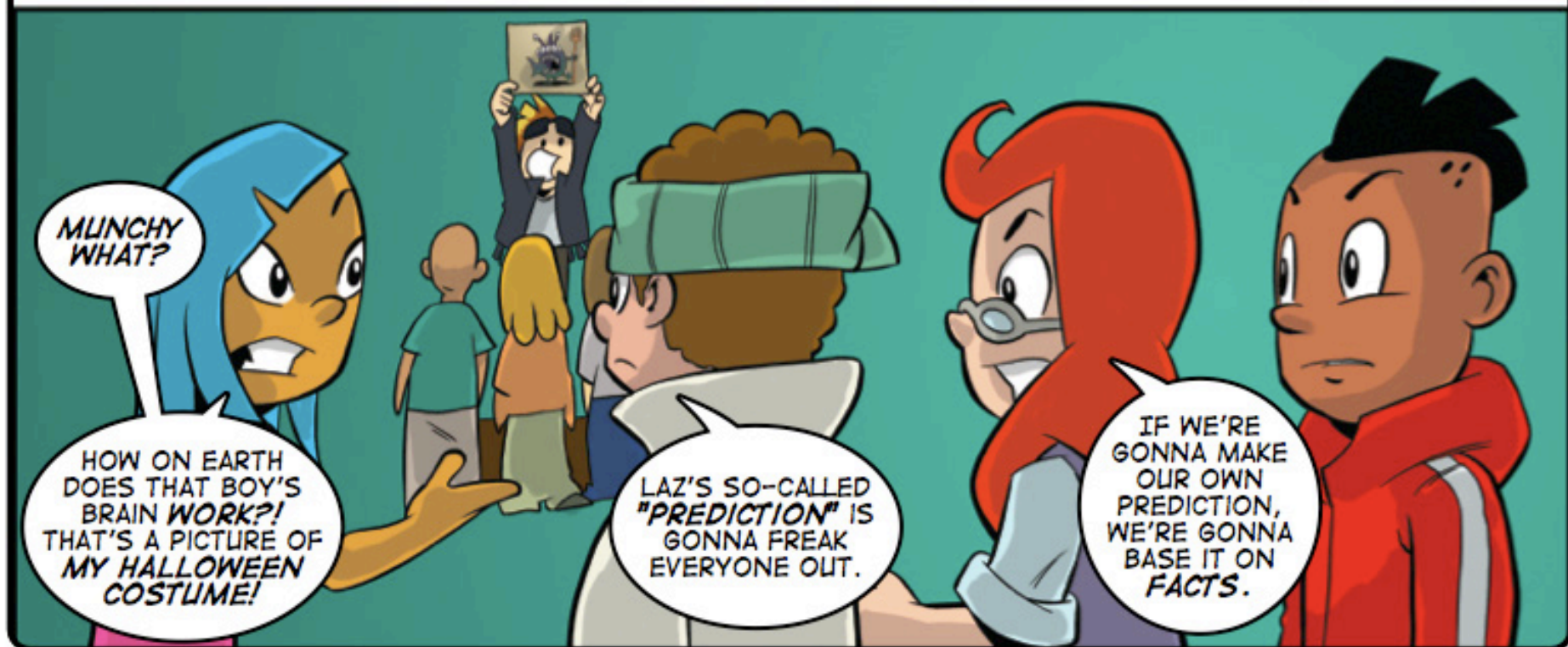


THEN WE WERE
FLOODED IN A
RAIN OF FISH AND
FROGS.



AND NOW WE
ARE **PLAGUED**
BY AN EVIL
STENCH.

THE **SIGNS** ARE
CLEAR TO ME, MY
BROTHERS AND
SISTERS...



AFTER A LITTLE RESEARCH, THE STRANGE HAPPENINGS AT THE VOLCANO START TO MAKE SENSE.

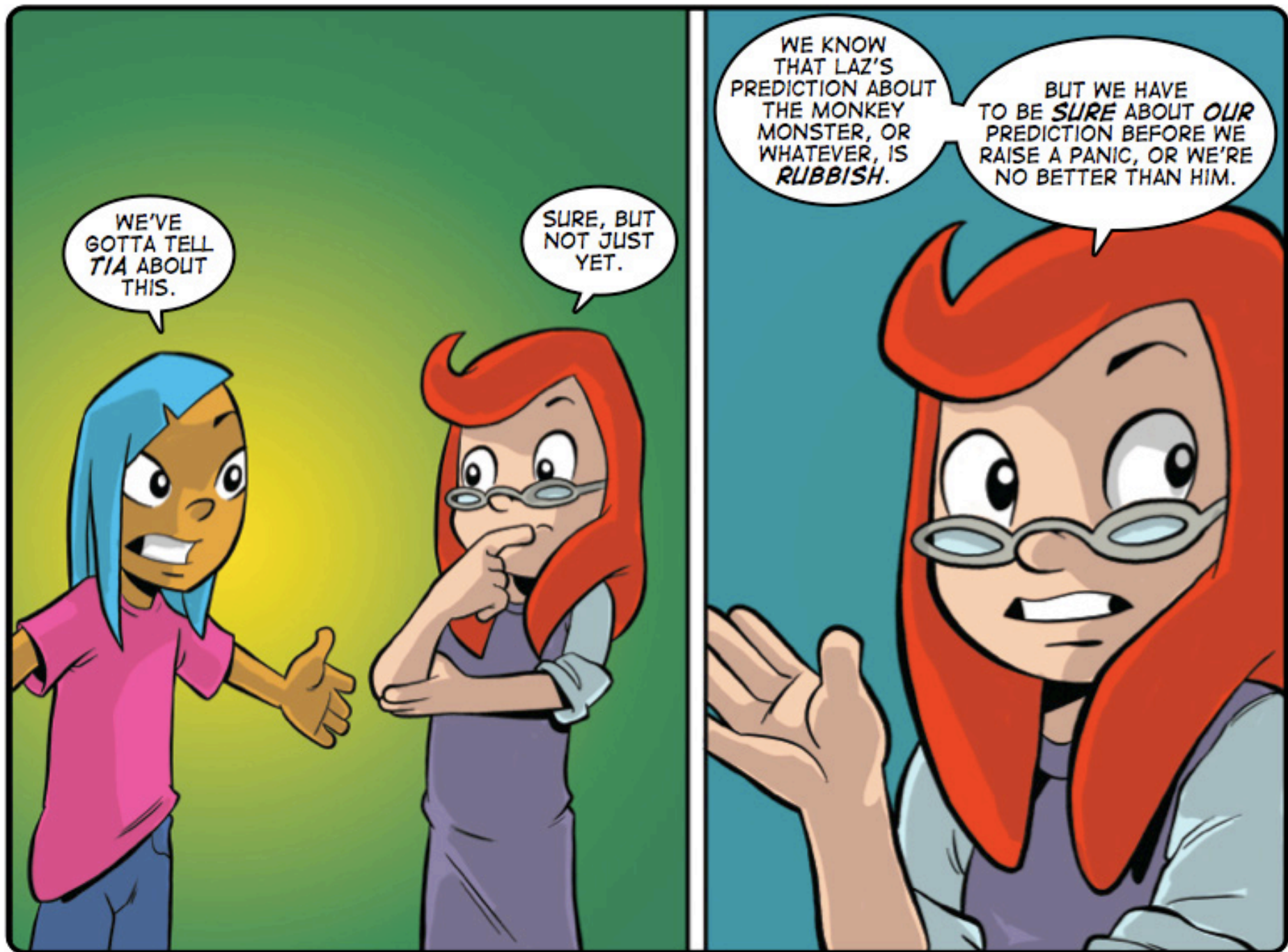
THAT EGGY SMELL COULD BE CAUSED BY **SULPHUR** FROM THE VOLCANO.

THE HOT WATER IN THE POOLS COULD BE CAUSED BY **HEAT** FROM UNDER THE VOLCANO.

AND IF **HEAT** IS RISING OUT OF THE CONE THAT COULD BE WHAT MADE OUR PAPER PLANES FLY SO HIGH.

IF ALL THIS IS TRUE, THEN THE VOLCANO COULD BE ABOUT TO **ERUPT**.

BUT WE HAVE TO BE **MORE CERTAIN!**



AN HOUR
LATER, NEAR
THE VOLCANO.

I DON'T WANNA
SEEM LIKE A CHICKEN,
BUT MAYBE WE
SHOULDN'T GET SO
CLOSE THIS TIME.

IF WE'RE GONNA
PREDICT AN
ERUPTION, THEN THE
RESPONSIBLE THING
TO DO IS LOOK FOR
REASONS WE MIGHT
BE **WRONG**.

OK, OK, WE'RE
RIGHT **BEHIND**
YOU!

• I WISH WE WERE
A FEW **HUNDRED**
METRES BEHIND
YOU... •

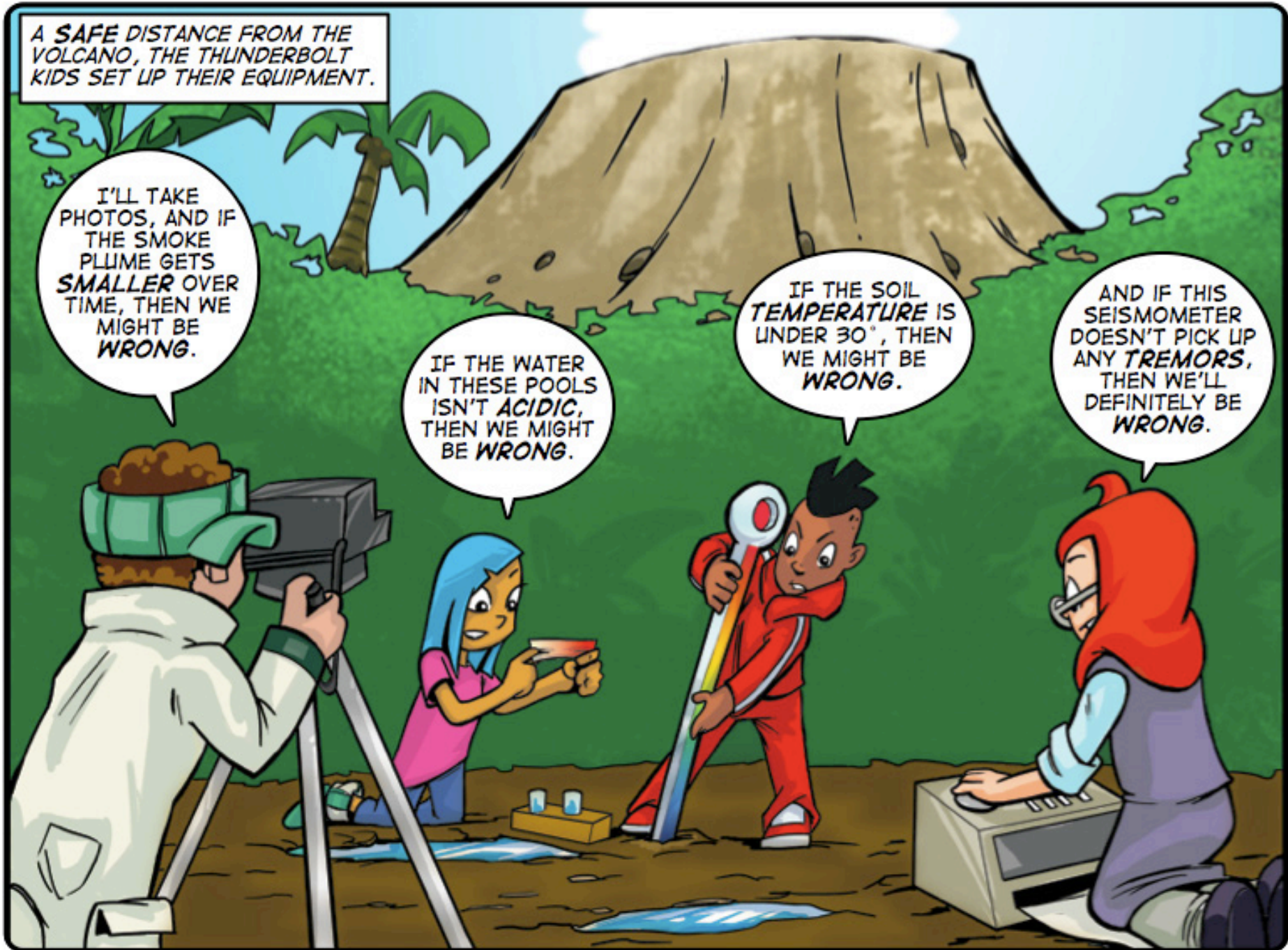
A **SAFE** DISTANCE FROM THE VOLCANO, THE THUNDERBOLT KIDS SET UP THEIR EQUIPMENT.

I'LL TAKE PHOTOS, AND IF THE SMOKE PLUME GETS **SMALLER** OVER TIME, THEN WE MIGHT BE **WRONG**.

IF THE WATER IN THESE POOLS ISN'T **ACIDIC**, THEN WE MIGHT BE **WRONG**.

IF THE SOIL **TEMPERATURE** IS UNDER 30°, THEN WE MIGHT BE **WRONG**.

AND IF THIS SEISMOMETER DOESN'T PICK UP ANY **TREMORS**, THEN WE'LL DEFINITELY BE **WRONG**.



THE FACTS DON'T LOOK GOOD.
BUT THERE IS A LITTLE HOPE.

OH NO! THE
PLUME GOT
BIGGER. THERE'S
NO QUESTION
ABOUT THAT!

THE WATER IS
PRACTICALLY
PURE **ACID**!

THE SOIL IS
SO **HOT** YOU
COULD COOK
AN EGG IN IT!

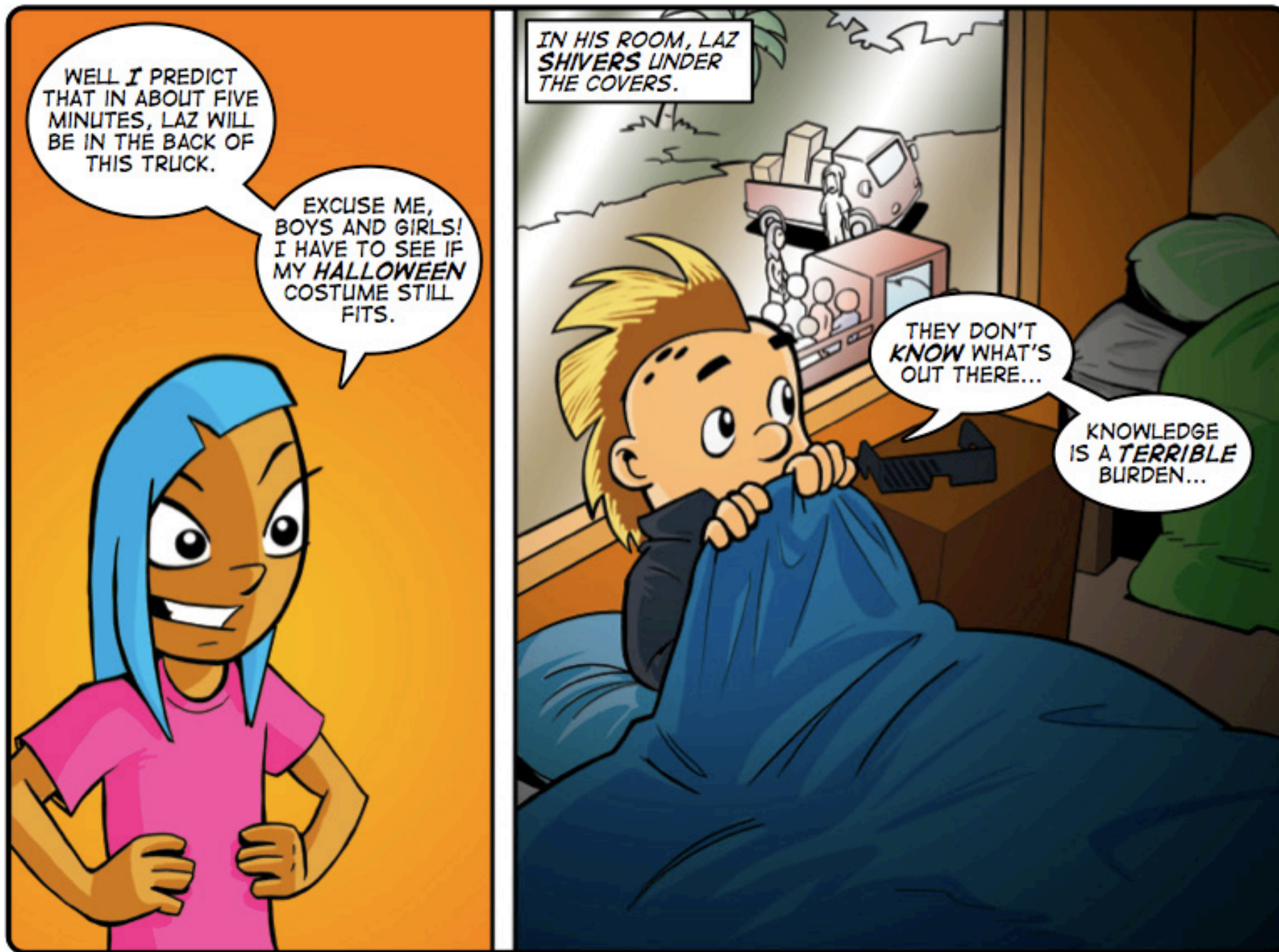
BUT THE MOST
IMPORTANT SIGN
IS MISSING! NO
SEISMIC ACTIVITY.
NO SHAKES!



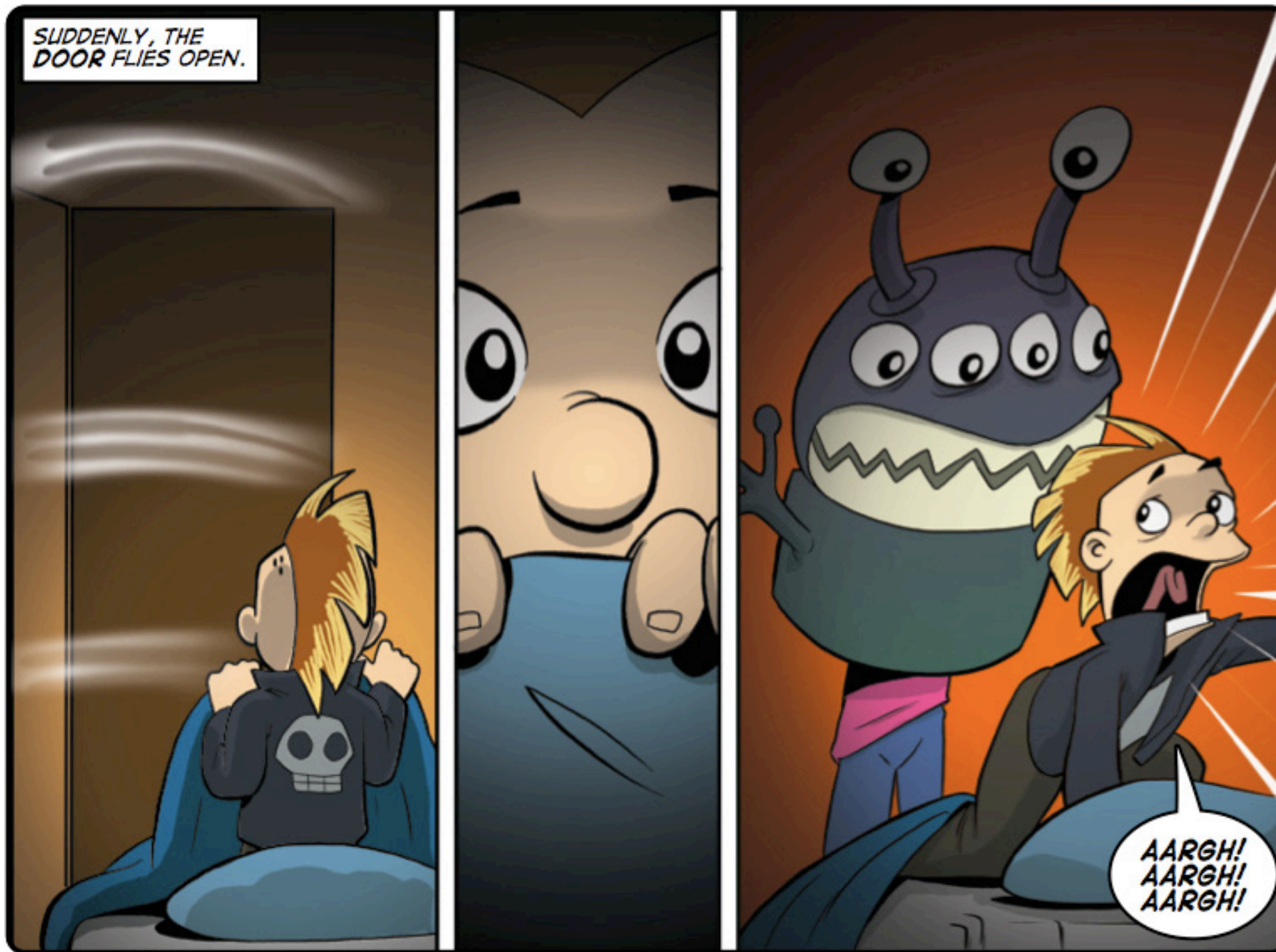


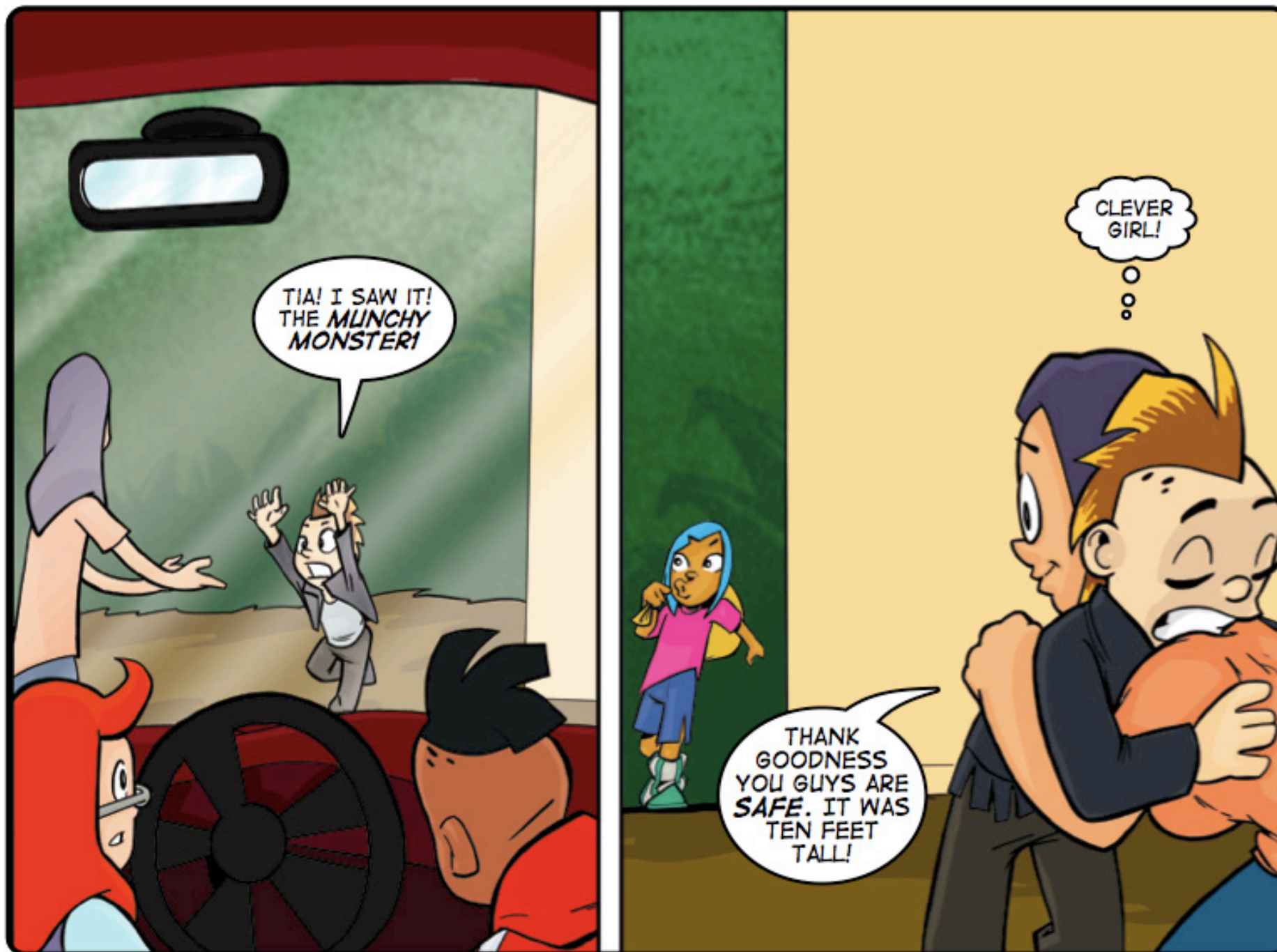




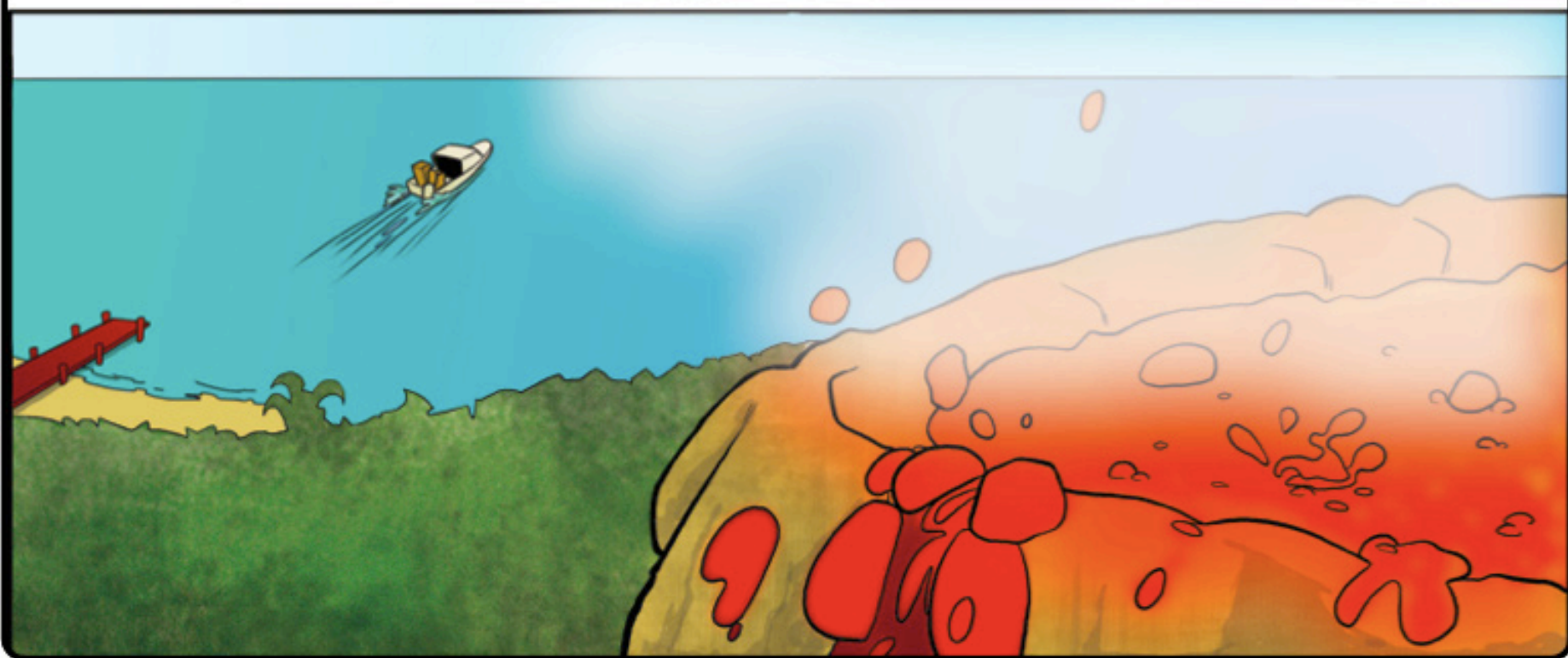
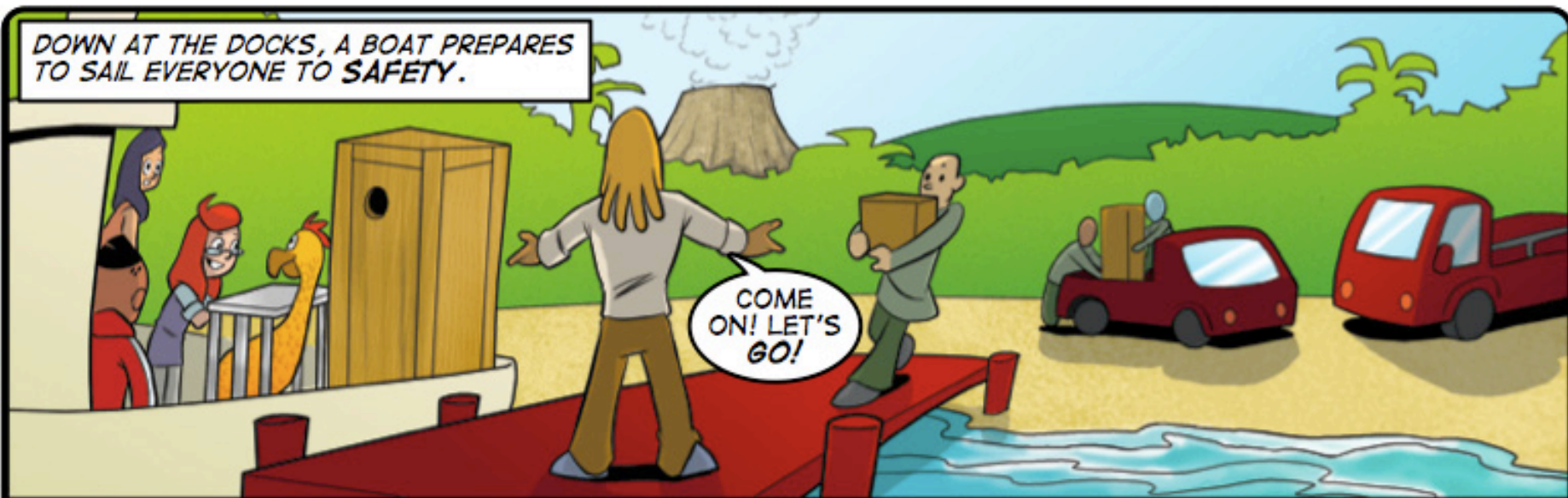


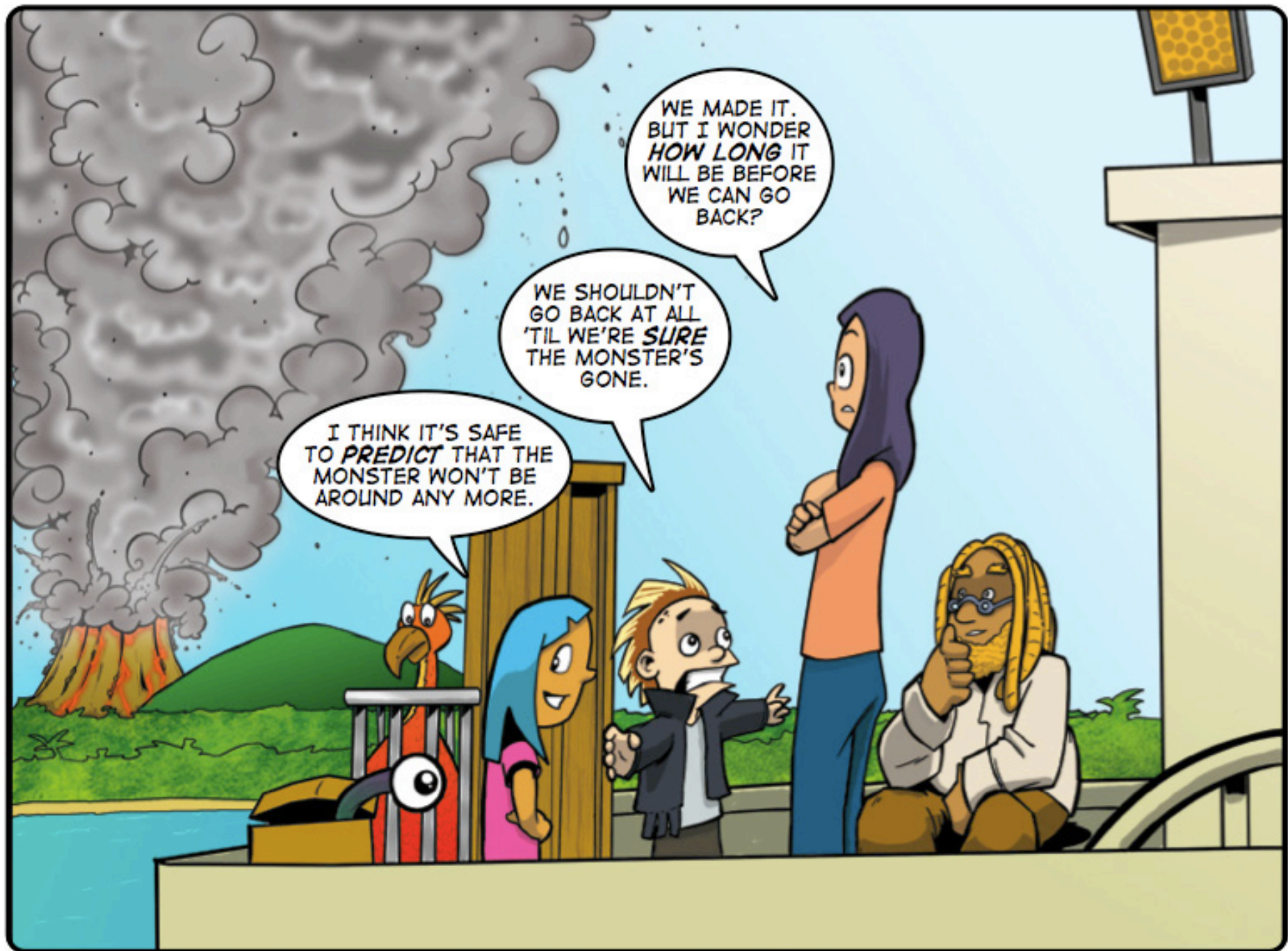
**SUDDENLY, THE
DOOR FLIES OPEN.**





DOWN AT THE DOCKS, A BOAT PREPARES TO SAIL EVERYONE TO **SAFETY**.





8. SNAKES ALIVE

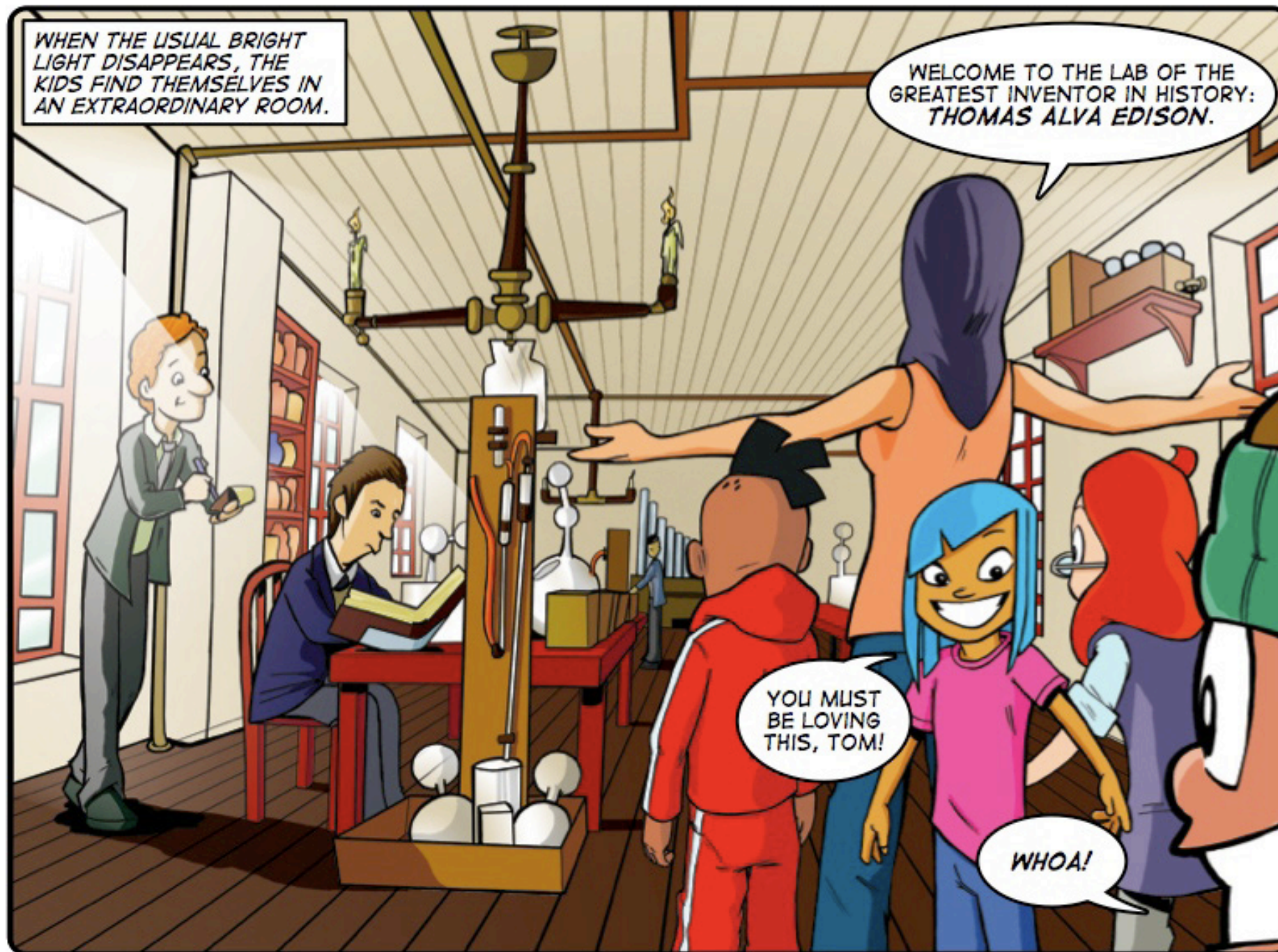
AN ADVENTURE IN THE VIRTUAL REALITY
MACHINE DOES NOT ALWAYS MEAN THAT
YOU ARE GOING SOME-WHERE...

WHERE ARE
WE GOING?

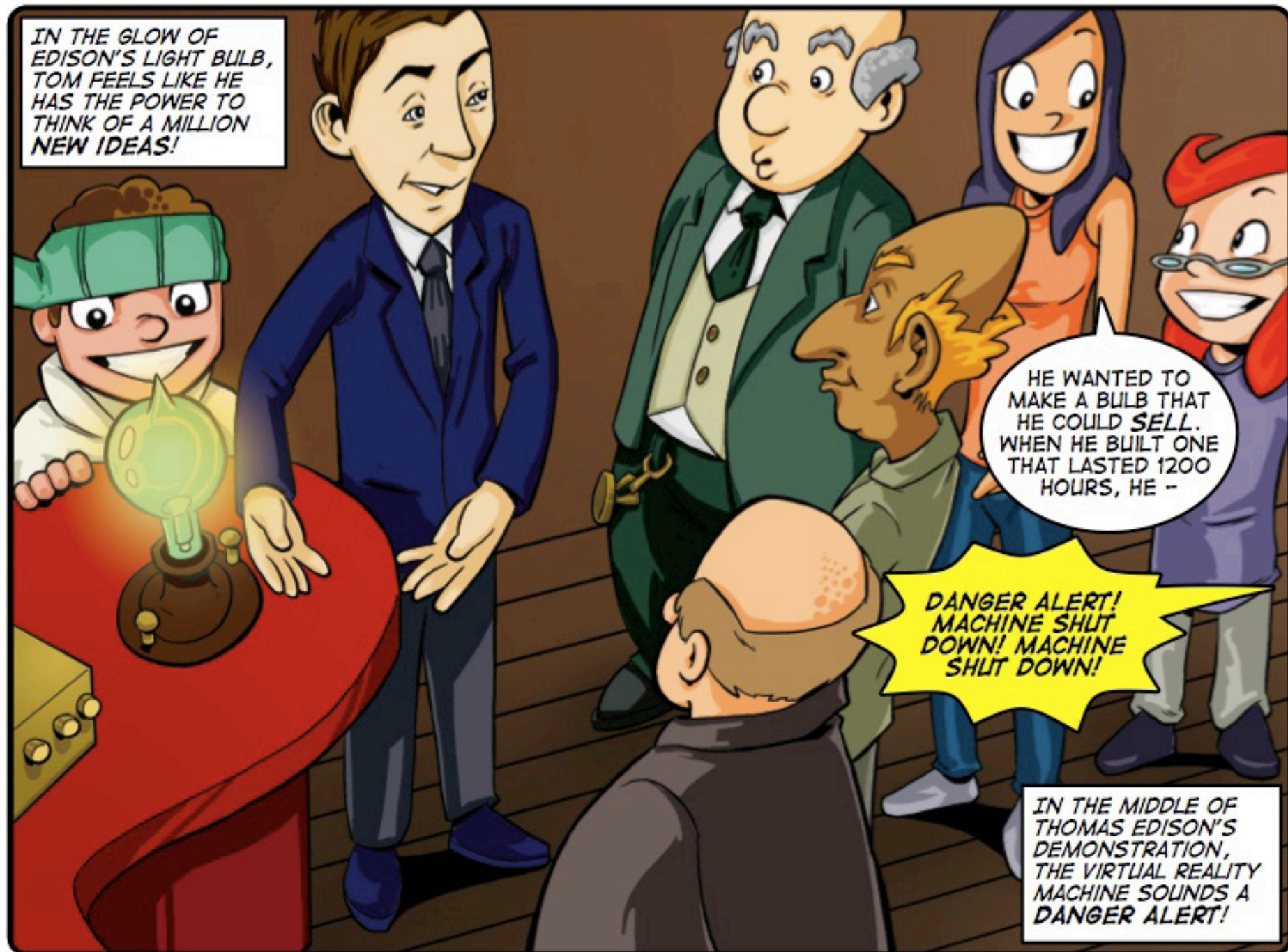
NOT *WHERE*.
WHEN. WE'RE
GOING BACK IN
TIME.

WE'RE GOING TO SEE A
MAN WHO PEOPLE USED TO
CALL *THE WIZARD OF
MENLO PARK*.

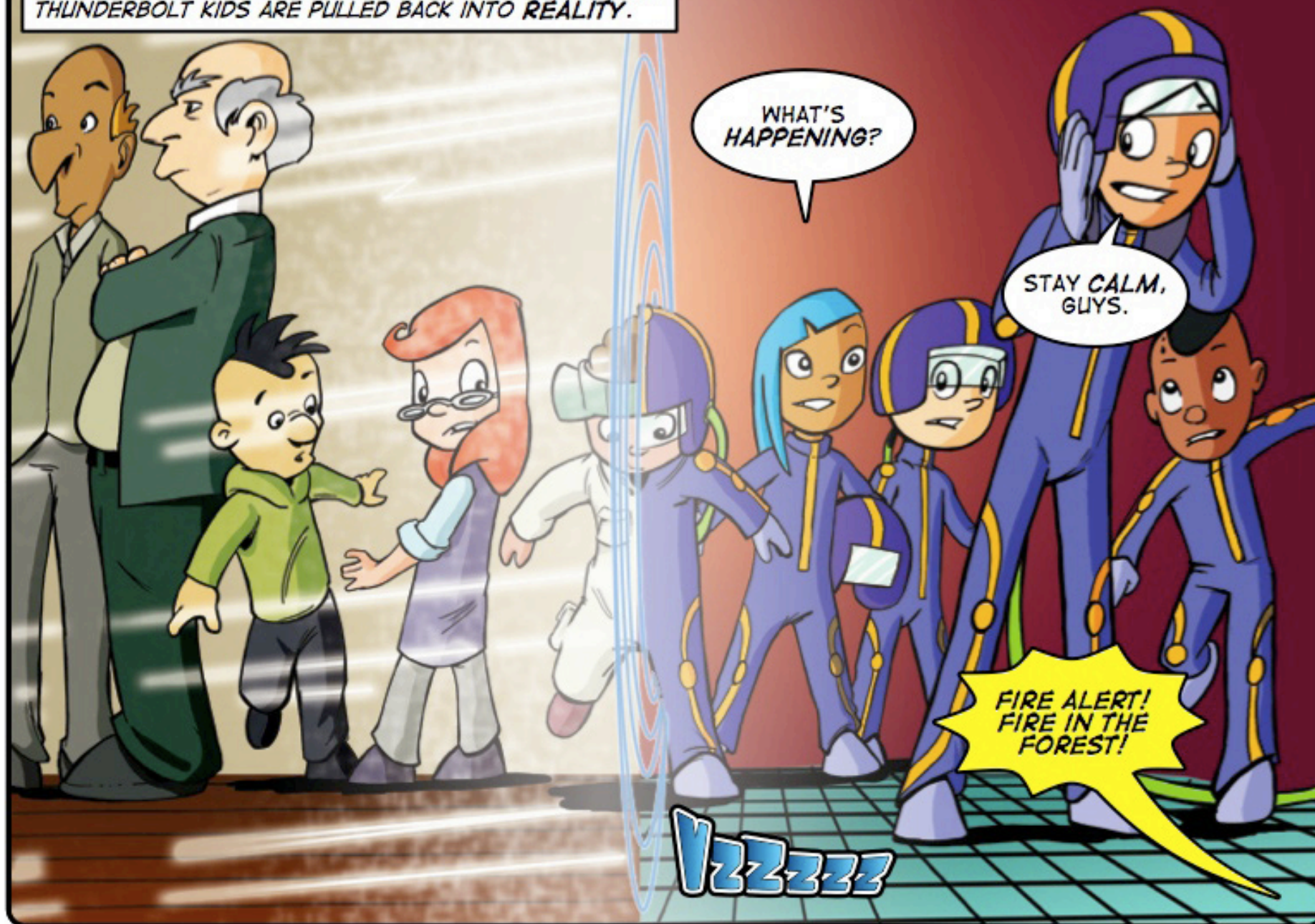








SUDDENLY, THE VIRTUAL WORLD SLIPS AWAY AND THE THUNDERBOLT KIDS ARE PULLED BACK INTO REALITY.

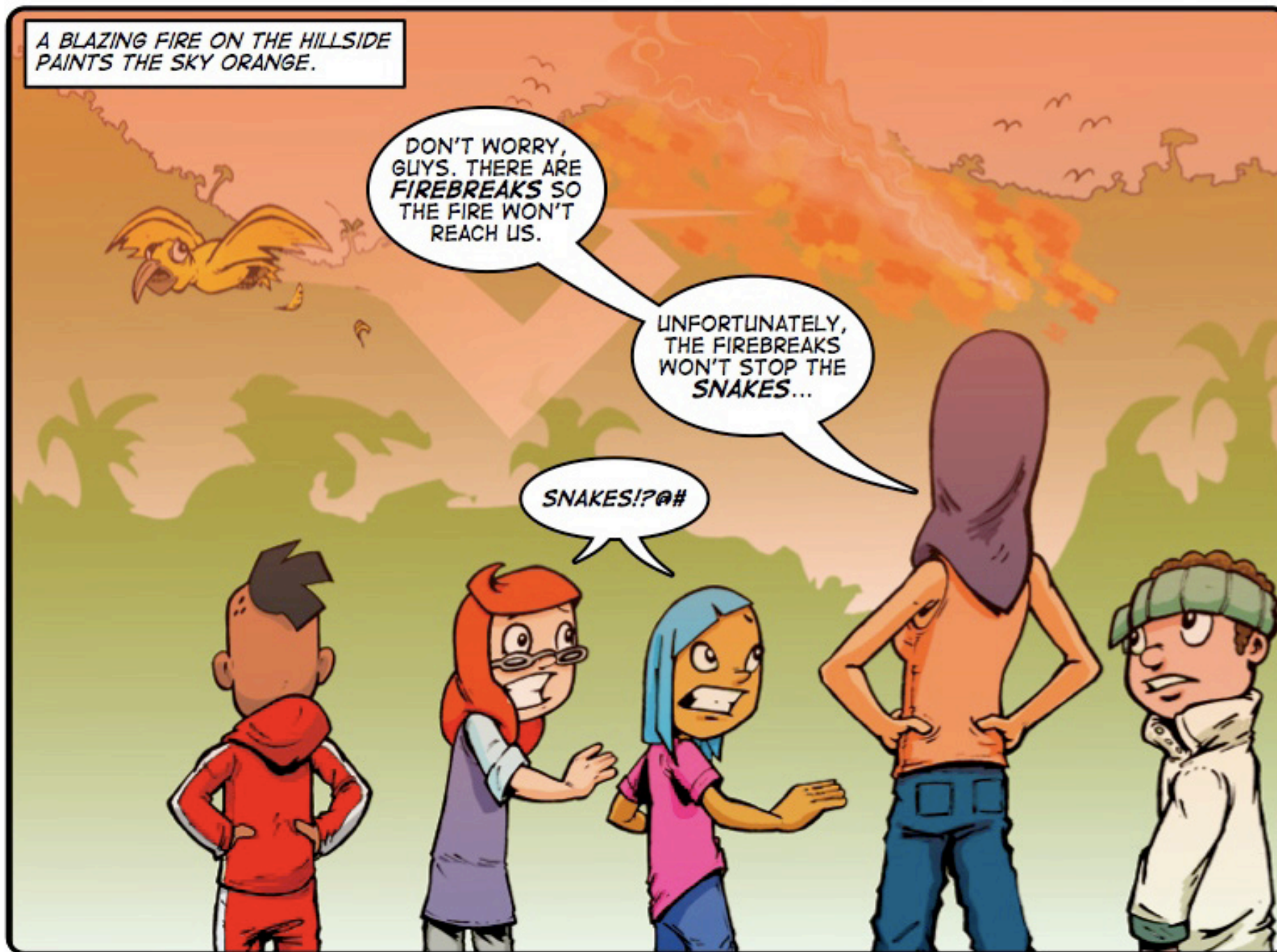


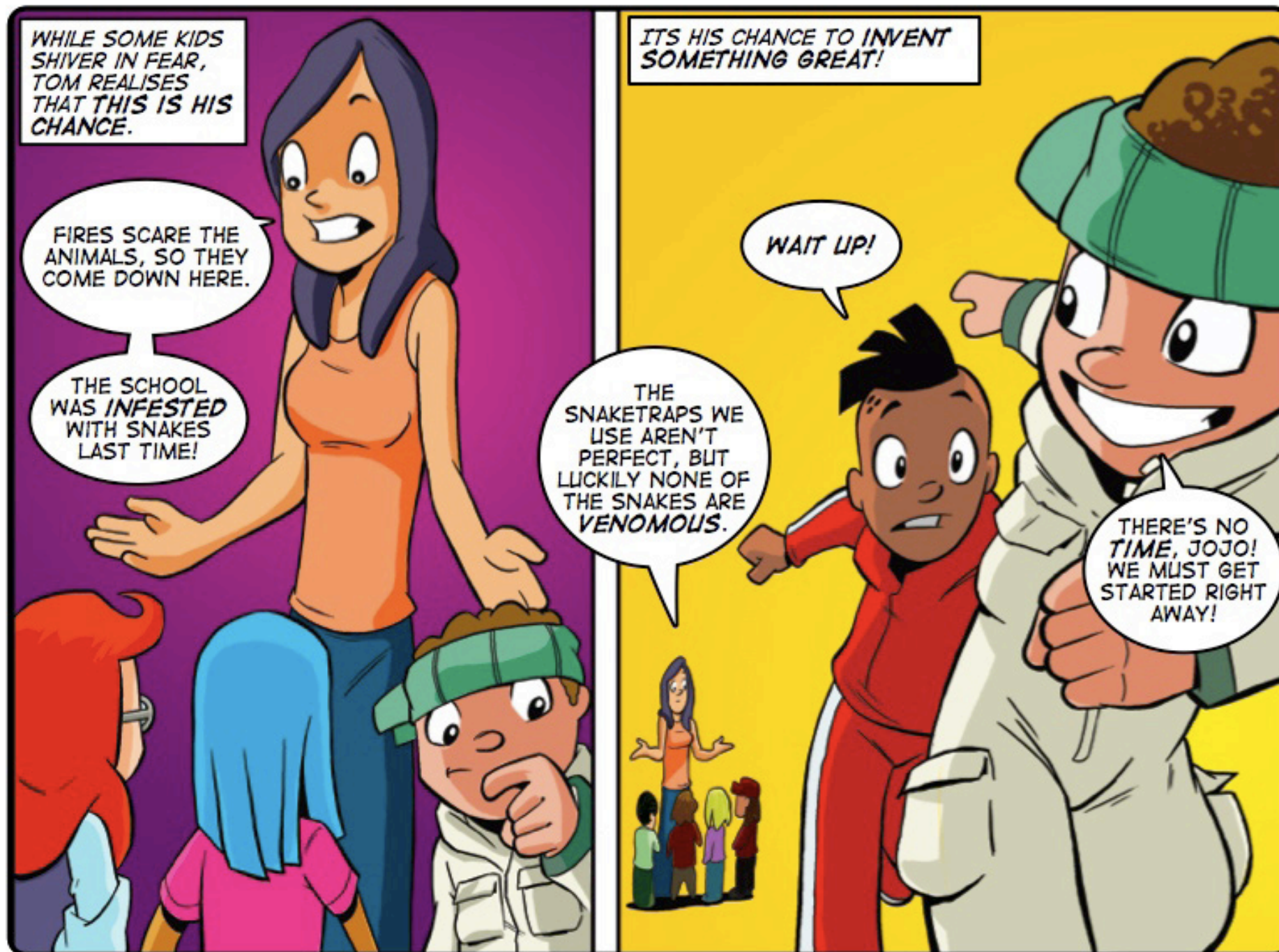
A BLAZING FIRE ON THE HILLSIDE
PAINTS THE SKY ORANGE.

DON'T WORRY,
GUYS. THERE ARE
FIREBREAKS SO
THE FIRE WON'T
REACH US.

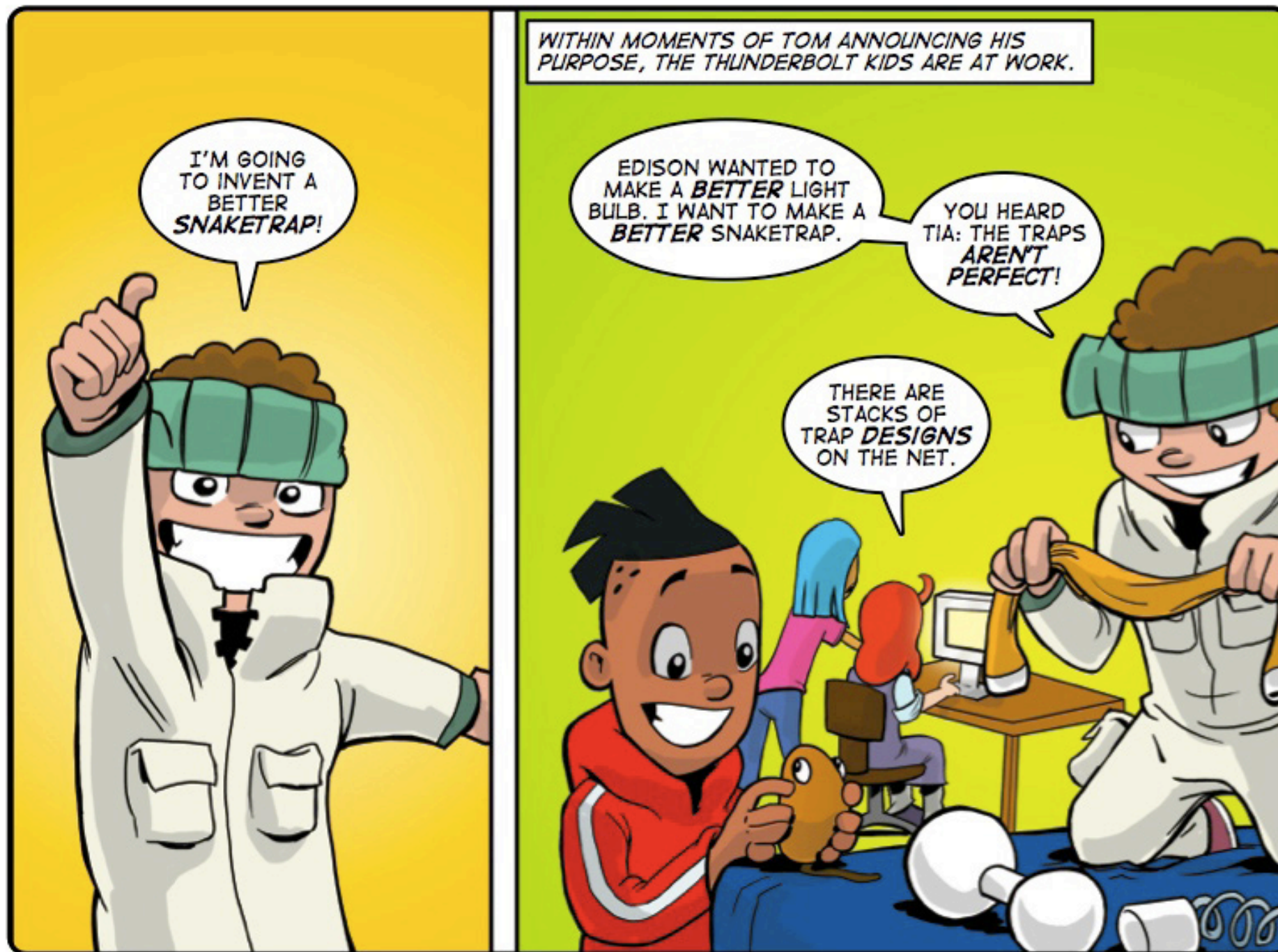
UNFORTUNATELY,
THE FIREBREAKS
WON'T STOP THE
SNAKES...

SNAKES!?!@#









I'M GOING TO INVENT A BETTER SNAKETRAP!

WITHIN MOMENTS OF TOM ANNOUNCING HIS PURPOSE, THE THUNDERBOLT KIDS ARE AT WORK.

EDISON WANTED TO MAKE A **BETTER** LIGHT BULB. I WANT TO MAKE A **BETTER** SNAKETRAP.

YOU HEARD TIA: THE TRAPS **AREN'T PERFECT!**

THERE ARE STACKS OF TRAP **DESIGNS** ON THE NET.

AND WITHIN A FEW MOMENTS MORE, TOM **DISCOVERS** HOW HE CAN MAKE A BETTER SNAKE TRAP...

WHOA! THIS ONE USES **LIVE** MICE OR CHICKENS!

I AM **NOT** KILLING MICE OR CHICKENS!



THAT IS, A TRAP THAT WILL DO THE JOB, BUT **DO NO HARM!**

NO PROBLEM! I'LL USE **FAKE BAIT**: MICE MADE OF **SOCKS**! THEN EVERYONE WHO FEELS LIKE FARRAH WILL BUY ONE!



I DON'T MIND KILLING **SOCKS**...

BUT ONE LOOK OUT THE WINDOW
IS ENOUGH TO ENSURE THAT NOT
EVERYONE IS HAPPY FOR LONG.

THEY'RE COMING!
THEY'RE FOLLOWING
THE SMELL OF FEAR!!!

SMELL?



THE SCALY
CREATURES
SLITHERING THEIR
WAY TOWARDS THE
SCHOOL HEAR THE
SOUND OF TOM
BEING INSPIRED
BY A NEW IDEA.

EUREKA!

GRAB ALL THE
SOCKS YOU
CAN AND
FOLLOW ME!



AN ANNOUNCEMENT COMES OVER THE INTERCOM, BUT THE KIDS ARE TOO FULL OF THE THRILL OF ADVENTURE TO STOP AND LISTEN.

* EVERYONE PLEASE
STAY IN YOUR ROOMS
UNTIL FURTHER NOTICE. *

UP TO THE LAB! WE
NEED **LIVE** MICE.
AND CHICKENS!

AS LONG AS OUR BAIT
SMELLS LIKE MICE OR
CHICKENS, THE SNAKES
SHOULD GO FOR IT.

AS LONG AS
WE'RE **NOT**
KILLING
ANYTHING!



UP IN THE LAB, TOM SETS
UP A **PRODUCTION LINE**.



GUYS!
STUFF THE
SOCKS TO
MAKE THEM
LOOK LIKE
MICE.

THEN RUB
THEM ON THE
REAL MICE AND
CHICKENS TO
RUB OFF THEIR
SCENT.



THE MICE
LOOK GREAT.
AND THE
BOXES WILL
WORK WELL
AS TRAPS.

BUT IF THE
MICE DON'T MOVE
THEN THE SNAKES
WON'T TAKE THE
BAIT. **HOW DO I**
MAKE THEM
MOVE?



JUST AS PRODUCTION IS
ALMOST COMPLETE, THEY
GET A SURPRISE VISITOR.

ANY GOOD REASON
WHY YOU ARE **NOT**
IN YOUR ROOMS?

OR PERHAPS I SHOULD ASK
YOU WHY YOU ARE
SCRUBBING THAT CHICKEN
WITH A PAIR OF **SOCKS**?



A FEW MINUTES - AND A LOT
OF EXPLAINING - LATER.

OK, YOU'RE OFF THE
HOOK. FOR NOW! BUT
ONLY BECAUSE I **NEED**
MORE SNAKETRAPS.

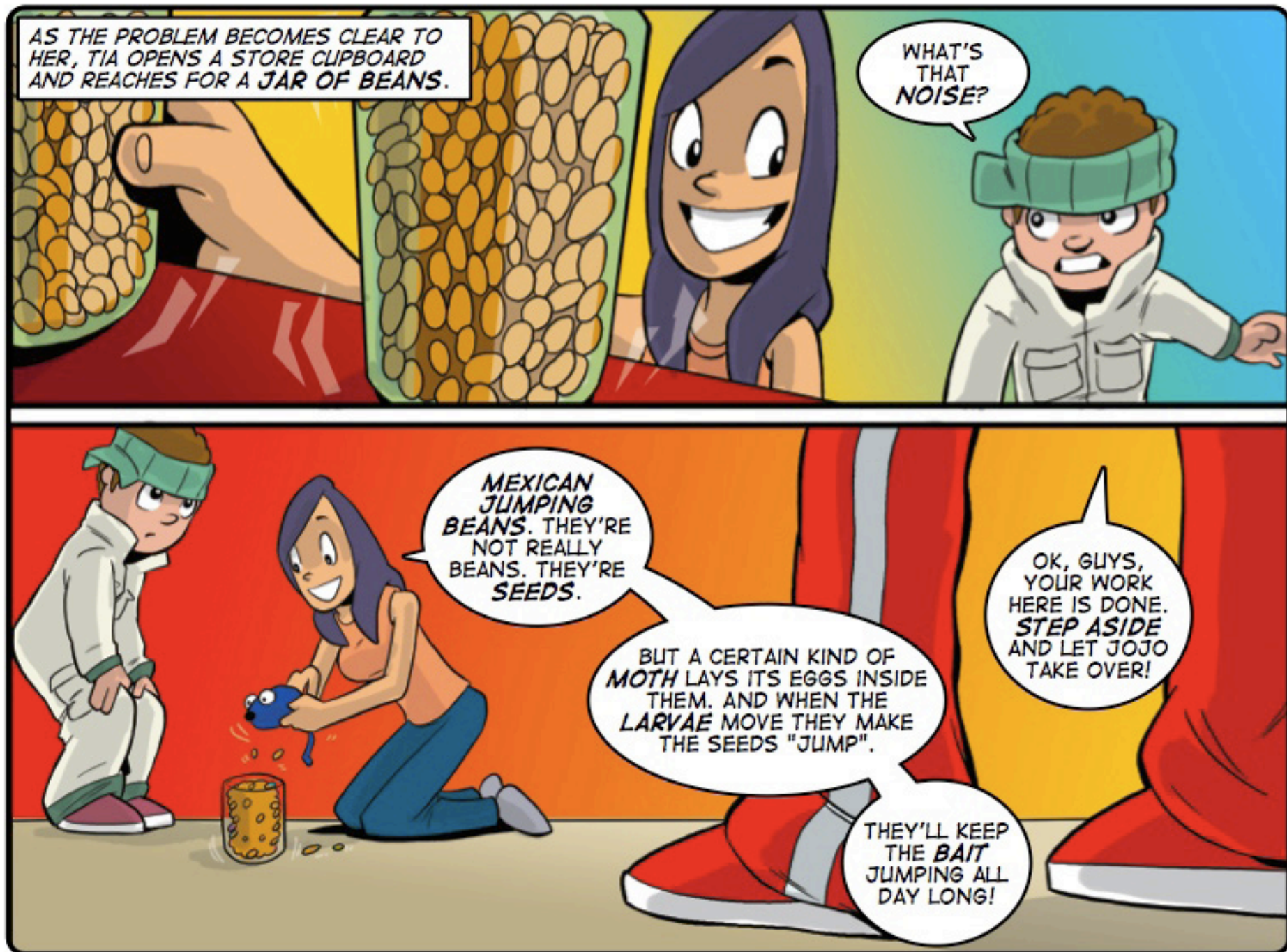
GREAT! BECAUSE
WE NEED YOUR
HELP TO MAKE
THESE THINGS
MOVE.

YEAH,
SNAKES
DON'T LIKE
LAZY BAIT.

I'VE THOUGHT OF
GEARS, SPRINGS,
MOTORS AND EVEN
PUPPET STRINGS.

BUT I **DON'T HAVE**
THE TIME TO MAKE
ANY OF THEM WORK.





AS THE PROBLEM BECOMES CLEAR TO HER, TIA OPENS A STORE CUPBOARD AND REACHES FOR A JAR OF BEANS.

WHAT'S THAT NOISE?

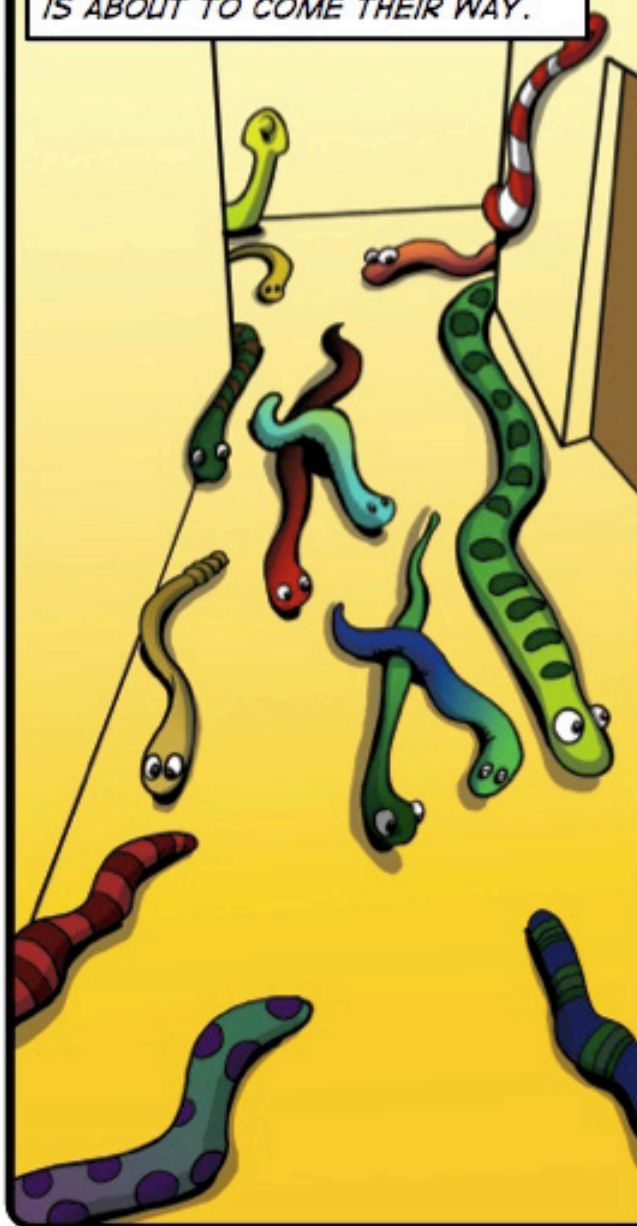
MEXICAN JUMPING BEANS. THEY'RE NOT REALLY BEANS. THEY'RE SEEDS.

BUT A CERTAIN KIND OF MOTH LAYS ITS EGGS INSIDE THEM. AND WHEN THE LARVAE MOVE THEY MAKE THE SEEDS "JUMP".

OK, GUYS, YOUR WORK HERE IS DONE. STEP ASIDE AND LET JOJO TAKE OVER!

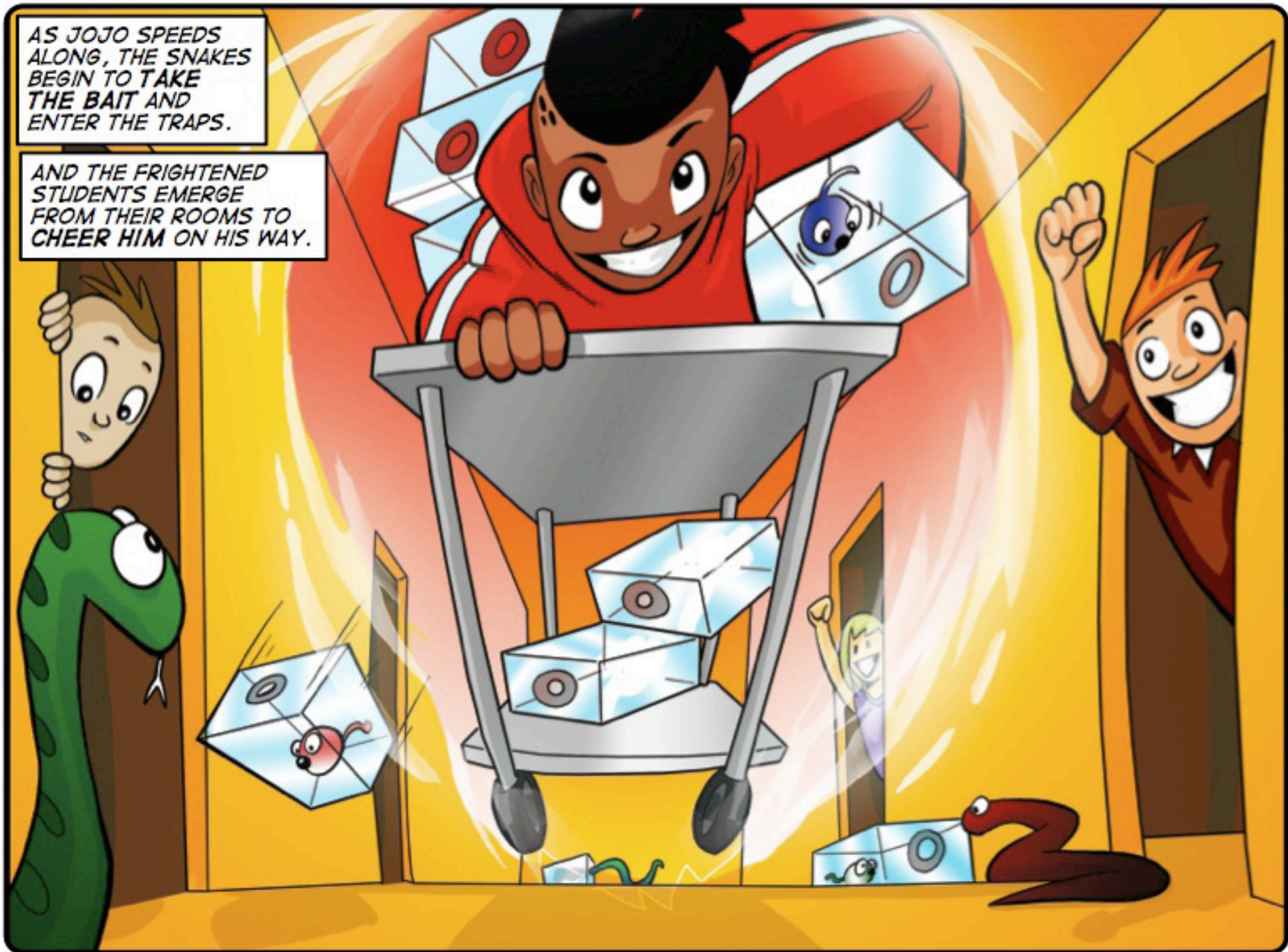
THEY'LL KEEP THE BAIT JUMPING ALL DAY LONG!

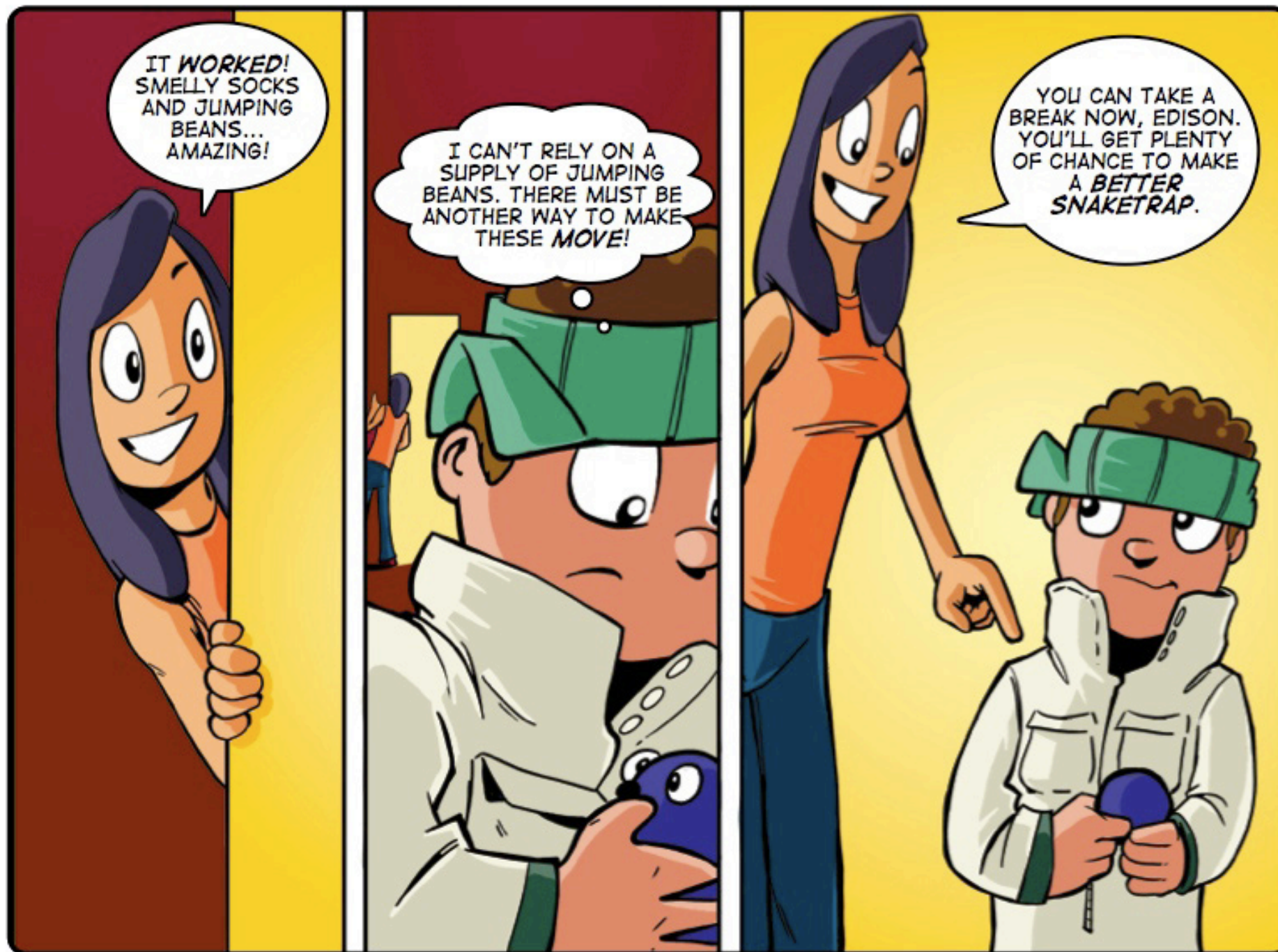
IN THE CORRIDORS OUTSIDE THE LAB, THE **SLITHERING SERPENTS** HAVE NO IDEA WHAT IS ABOUT TO COME THEIR WAY.



AS JOJO SPEEDS
ALONG, THE SNAKES
BEGIN TO TAKE
THE BAIT AND
ENTER THE TRAPS.

AND THE FRIGHTENED
STUDENTS EMERGE
FROM THEIR ROOMS TO
CHEER HIM ON HIS WAY.





ONCE THE **FIREFIGHTERS** HAVE PUT OUT THE FIRE, THEY COME DOWN TO THE SCHOOL TO FETCH THE SNAKETRAPS.

HOW CAN WE **THANK** YOU, TOM? YOU'VE DONE HALF OUR WORK DOWN HERE.

I THINK WE'D ALL BE VERY HAPPY IF YOU TOOK THE SNAKES **FAR AWAY** BEFORE LETTING THEM GO.

I'M PRETTY SURE THEY'RE GONNA BE **HUNGRY!** AND **ANGRY!**

Science Adventures with the

THUNDERBOLTS
KIDS

