

Science Adventures with the





# **Sciences Adventures with the Thunderbolt Kids**

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Grade 5

by Siyavula and the Shuttleworth Foundation

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## ATTRIBUTION

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The Thunderbolt Kids characters and graphical stories in this book were developed as part of the Kusasa project ([www.kusasa.org](http://www.kusasa.org)), initiated and funded by the Shuttleworth Foundation ([www.shuttleworthfoundation.org/](http://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.

### Contact Siyavula

Contact Siyavula to order printed copies or other digital titles at:

Siyavula Education (Pty) Ltd

**website** [www.thunderboltkids.co.za](http://www.thunderboltkids.co.za)

**e-mail** [info@siyavula.com](mailto:info@siyavula.com)

**tel** +27 21 469 4771

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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?

\* ?! \*







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



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



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

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









JOJO RUSHES PAST TIA  
AT LIGHTNING SPEED!



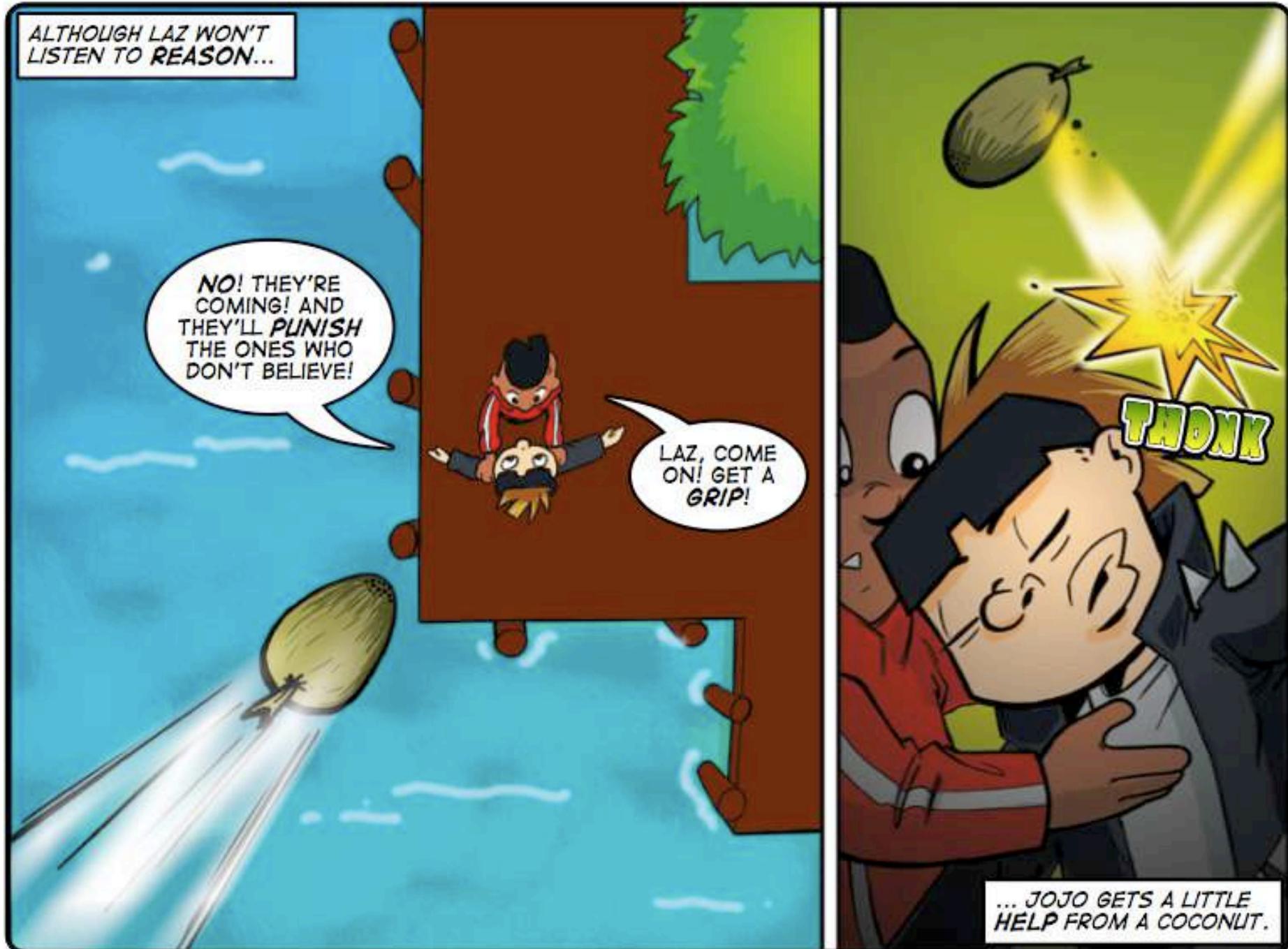
JOJO, NO!



FOR  
GOODNESS  
SAKE, LAZ,  
THERE ARE NO  
ALIENS!

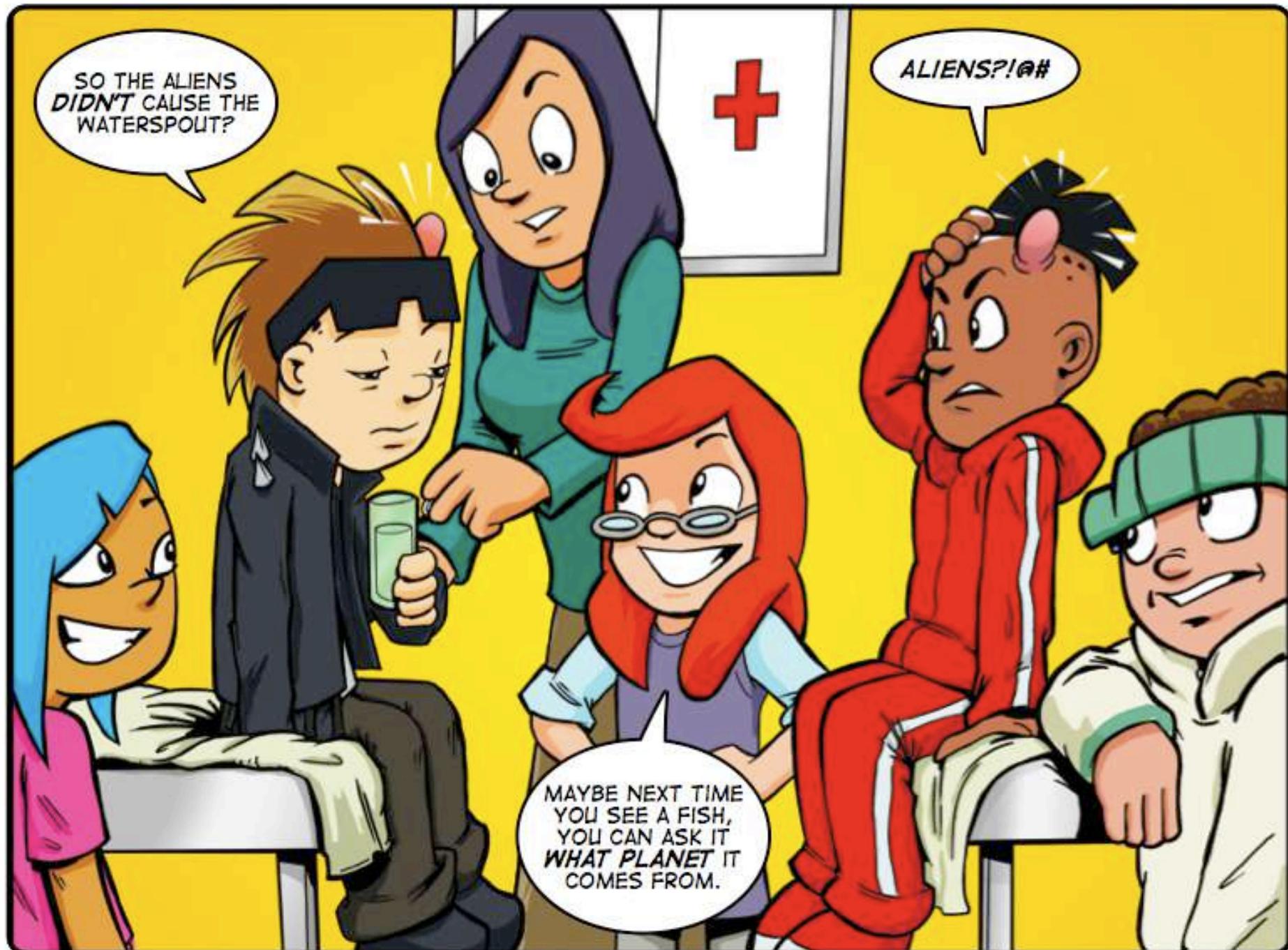
JUST ASK YOURSELF:  
WHAT IS THAT BLUE  
STUFF? IT'S WATER!  
AND IT'LL SUCK YOU  
INTO THE CLOUDS IF  
YOU DON'T GET INSIDE  
NOW!





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





## **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.



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

COME ON!  
THERE'S NO  
ONE HERE.

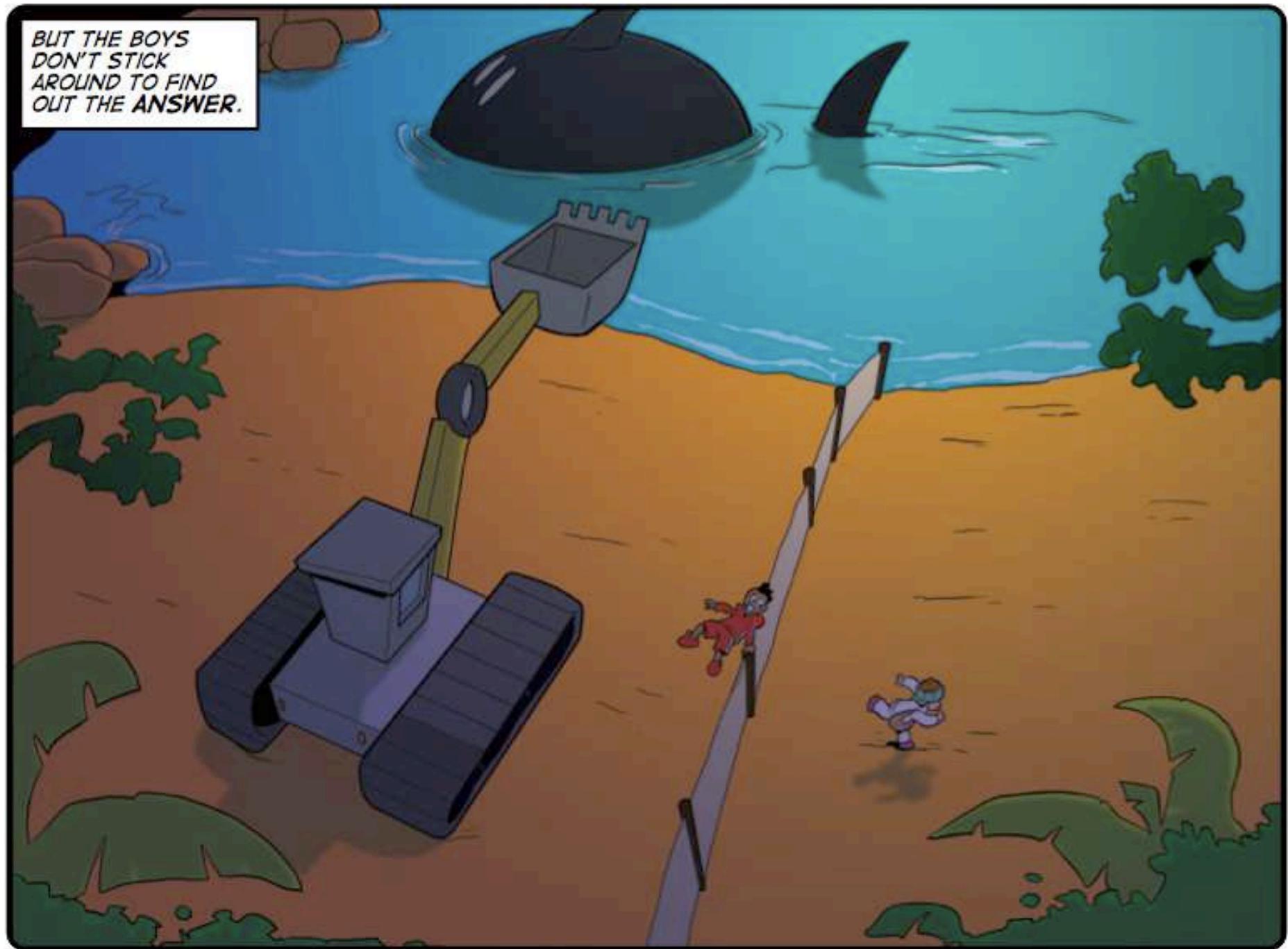
I DON'T THINK THIS IS  
SUCH A GOOD IDEA. THERE  
ARE **NO ENTRY** SIGNS  
EVERYWHERE.

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!



JEEPERS, SOPH,  
IT'S A *TOOTH*!  
MAYBE THE BOYS  
ARE RIGHT. MAYBE  
THERE IS A *SEA  
MONSTER*.



THERE'S DEFINITELY  
*SOMETHING FISHY*  
*BENEATH THE*  
*SURFACE* OF THIS  
MYSTERY. BUT I'M  
NOT SURE I BELIEVE  
IN SEA MONSTERS  
JUST YET.

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

LOOK  
BEHIND  
YOU!



SHRUNK

AAGHHHH!

WHAT IS IT?



AND THE ONLY  
THING THEY  
CAN DO IS RUN!

AAGH!

AAGH!

AAGH!

AAGH!

AND SCREAM!

AND IF THEIR TROUBLES  
WEREN'T ENOUGH...

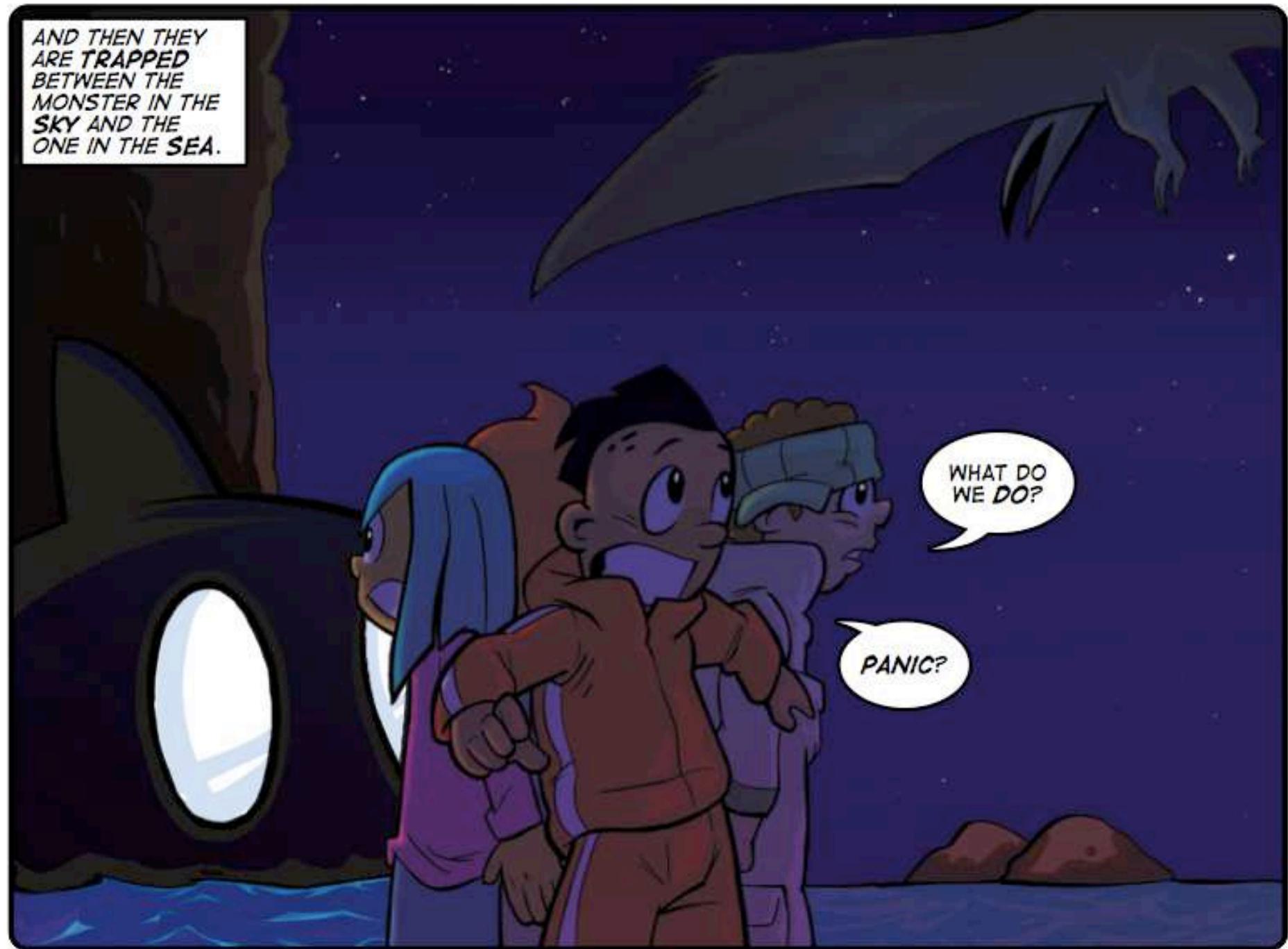
I THOUGHT  
THESE THINGS  
WERE EXTINCT!

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.



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.

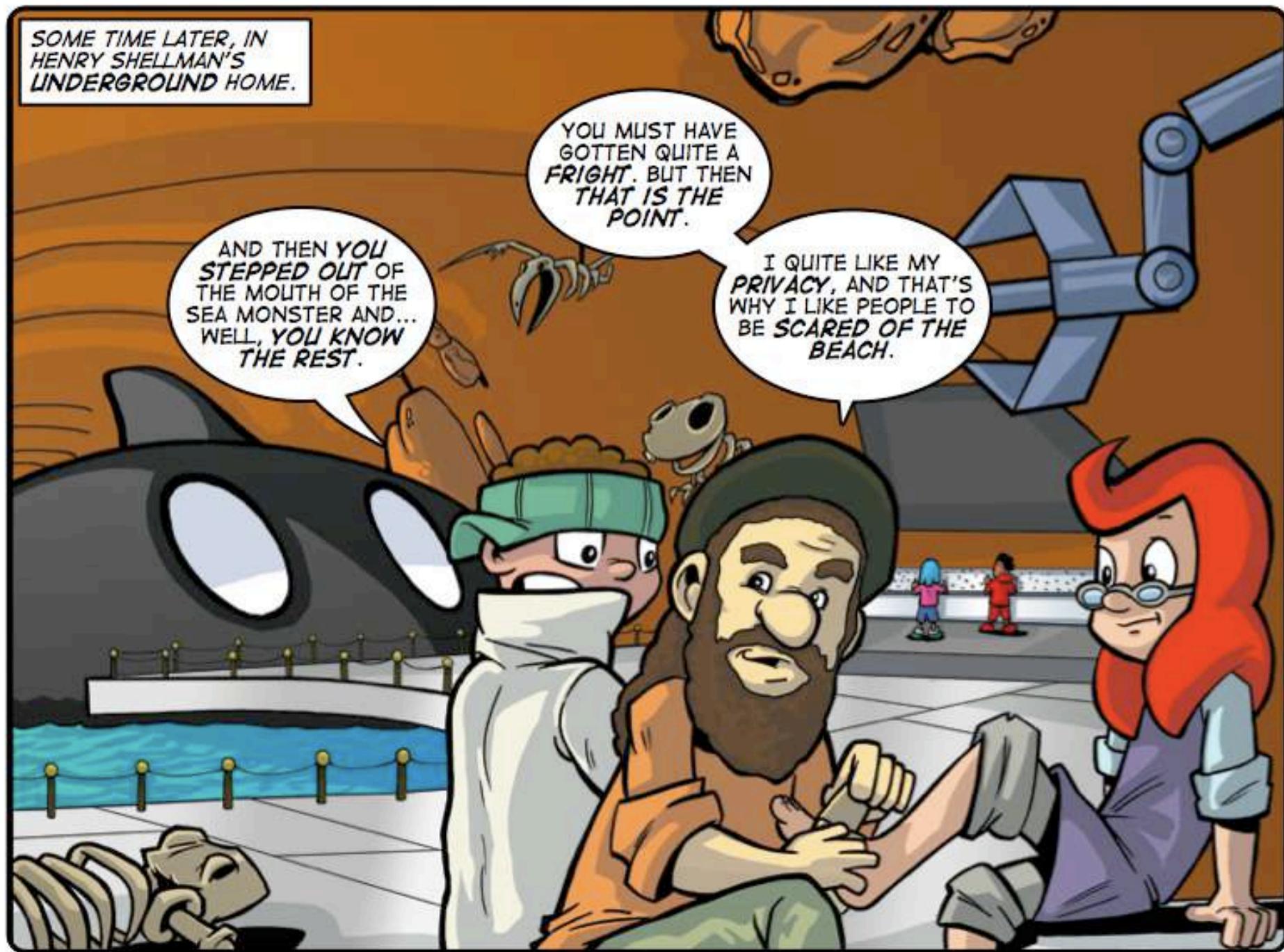


SOME TIME LATER, IN  
HENRY SHELLMAN'S  
UNDERGROUND HOME.

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.

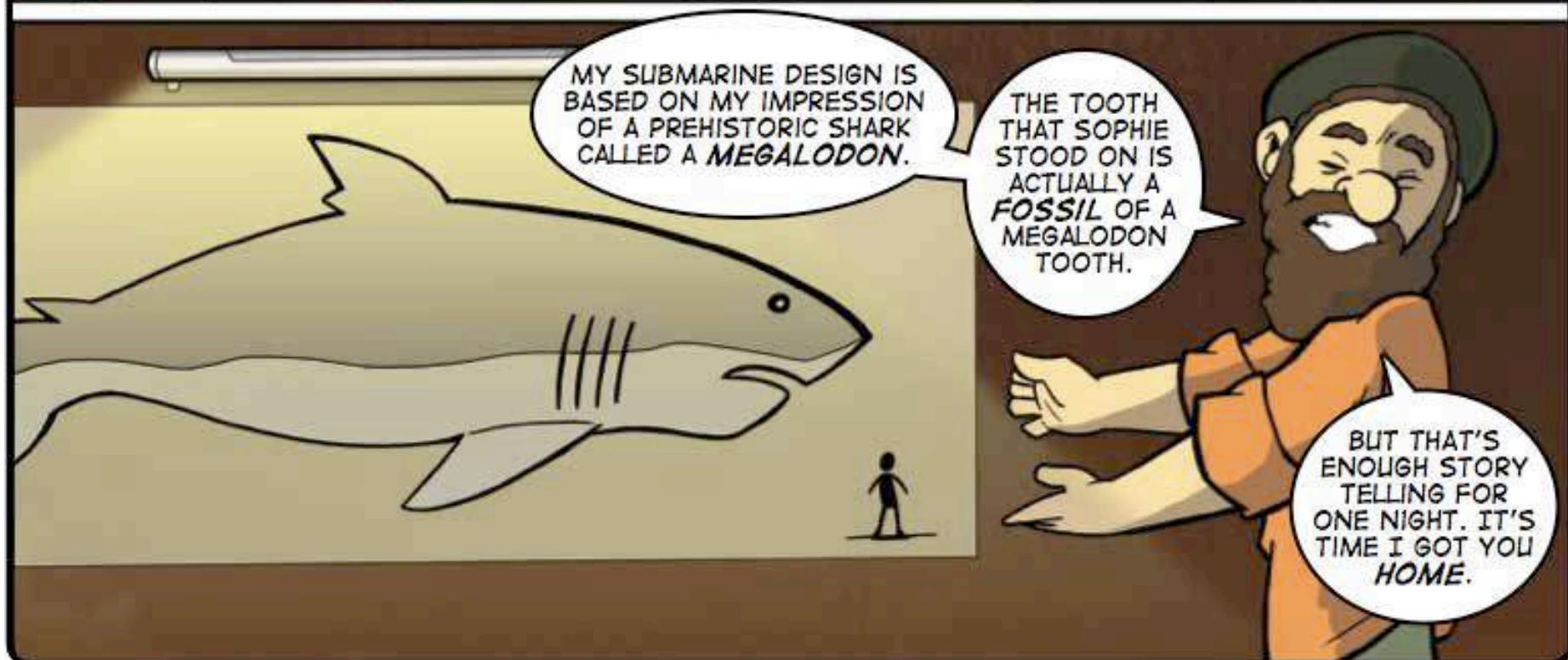
I QUITE LIKE MY  
PRIVACY, AND THAT'S  
WHY I LIKE PEOPLE TO  
BE SCARED OF THE  
BEACH.











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...

TODAY WE'RE GOING TO TALK ABOUT FOSSILS. BUT APPARENTLY SOME OF YOU ALREADY KNOW ABOUT FOSSILS!



### **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.





IN THE VR STUDIO, TIA PLUGS IN THE REMAINING GROUPS TO THEIR OWN GAMES.



BUT WITH A  
SINGLE TURN  
OF A SINGLE  
DIAL, LAZLO  
CHANGES THE  
FATE OF THE  
THUNDERBOLT  
KIDS.









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.



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



YOU'RE  
GONNA PAY  
FOR THIS,  
JERK!



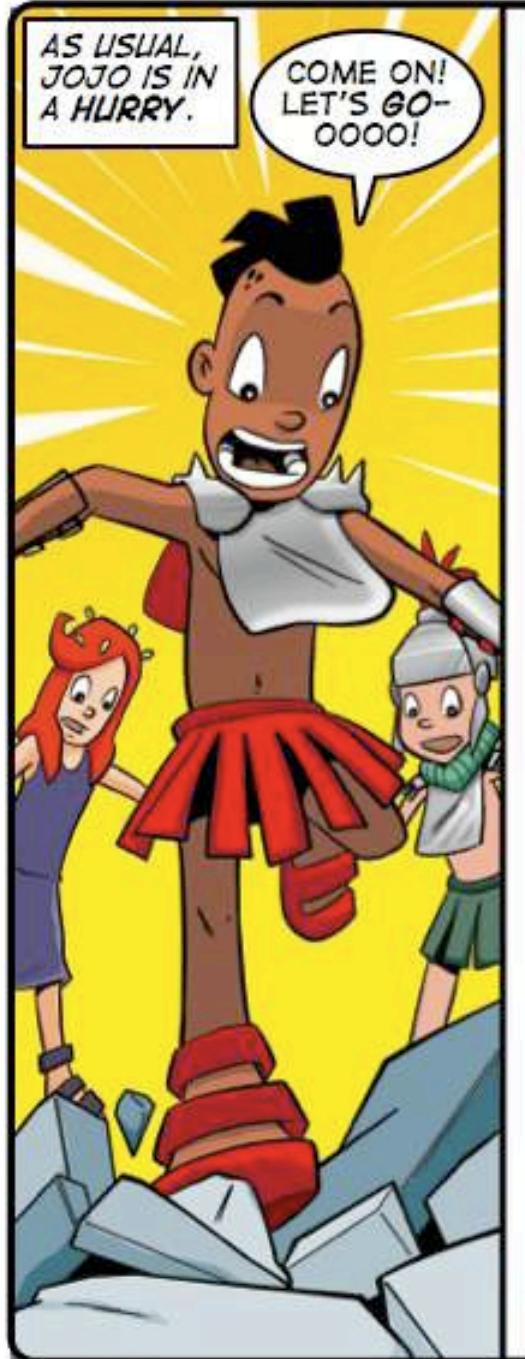
YOU MUST  
COMPLETE THE  
CHALLENGES, OR  
YOUR FRIEND  
IN THE CAGE  
WILL DIE!



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

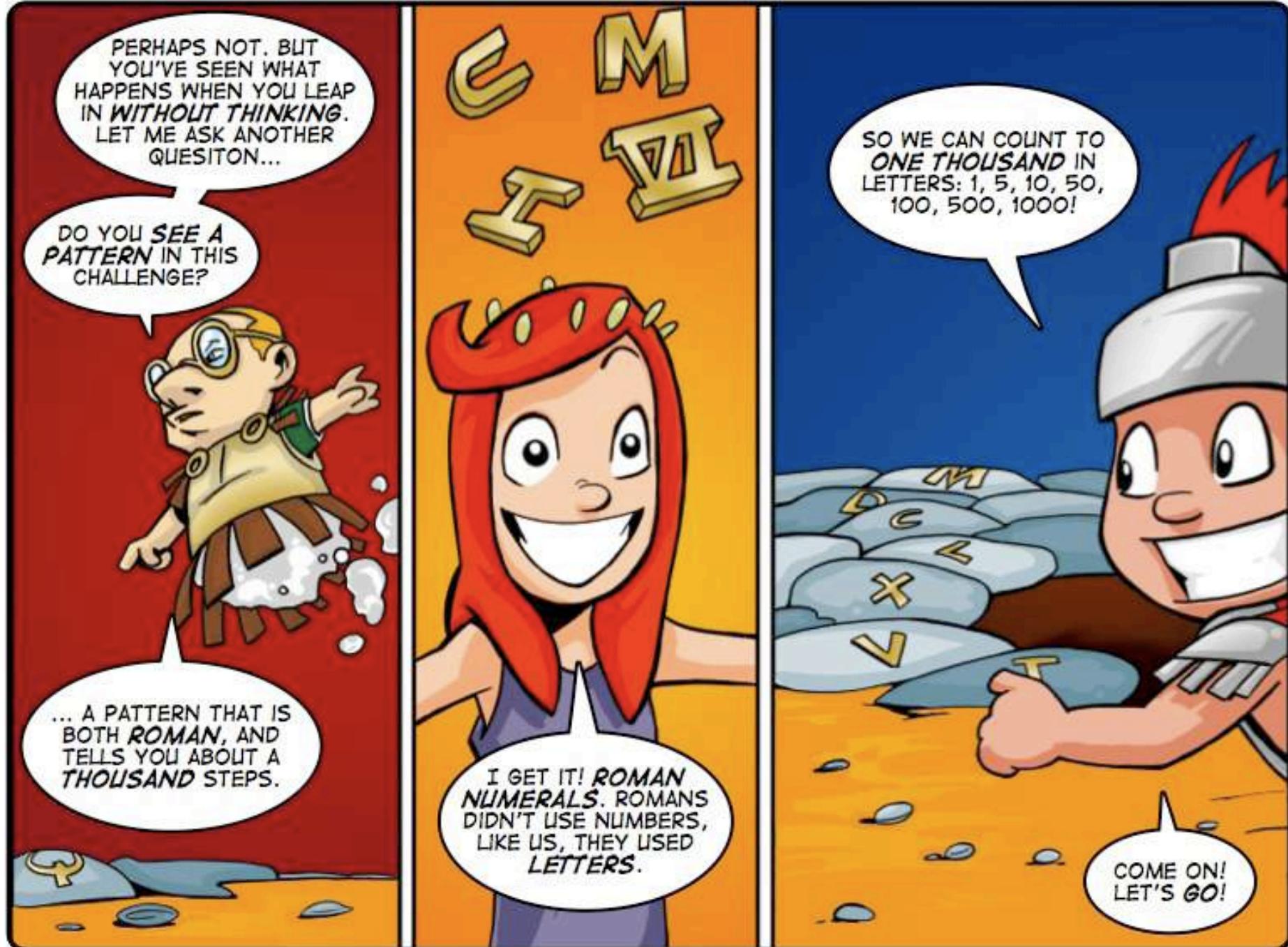


YOU HAVE UNTIL  
THE SANDS IN THE  
HOURGLASS RUN  
OUT TO WALK A  
**THOUSAND**  
**STEPS** ACROSS  
THIS FLOOR.





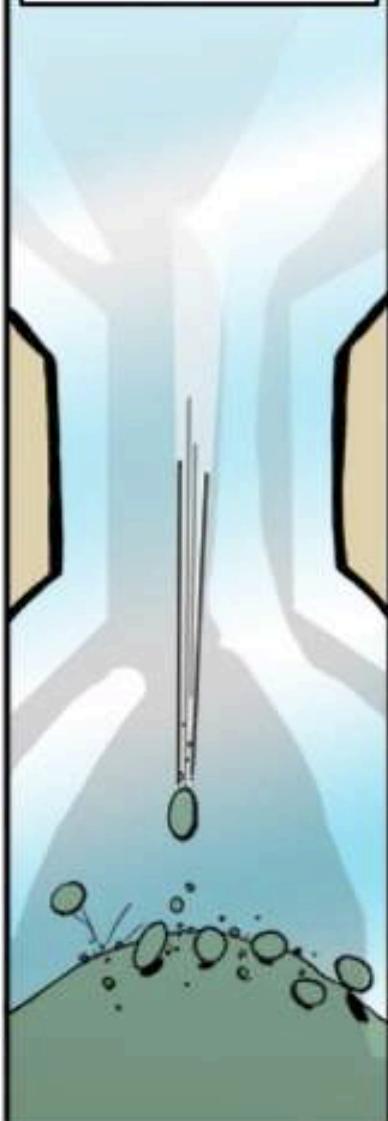




ARMED WITH CONFIDENCE,  
THEY SKIP OVER THE ROCKS  
WITHOUT FEAR OF THE DEADLY  
SNAKES BELOW.

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.



WHEN THE FAT MAN LAYS DOWN THE CHALLENGE, THE THUNDERBOLT KIDS CANNOT BELIEVE THEIR EARS.



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.

GOOOOD  
KITTY. BAAAAD  
EMPEROR.

\* MEOW \*

GAAA!

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.

BACK IN THE VIRTUAL REALITY CONTROL ROOM, TIA HAS A WORD WITH LAZLO.

LAZLO, I COULD PUNISH YOU FOR WHAT YOU'VE DONE.

BUT *INSTEAD* I'M GOING TO LEAVE YOU ALONE TO HAVE A LITTLE *CHAT* WITH TOM, JO, SOPHIE AND FARRAH.



HI, LAZ!



GOOD TO SEE YOU, LAZ!

**BZZ**

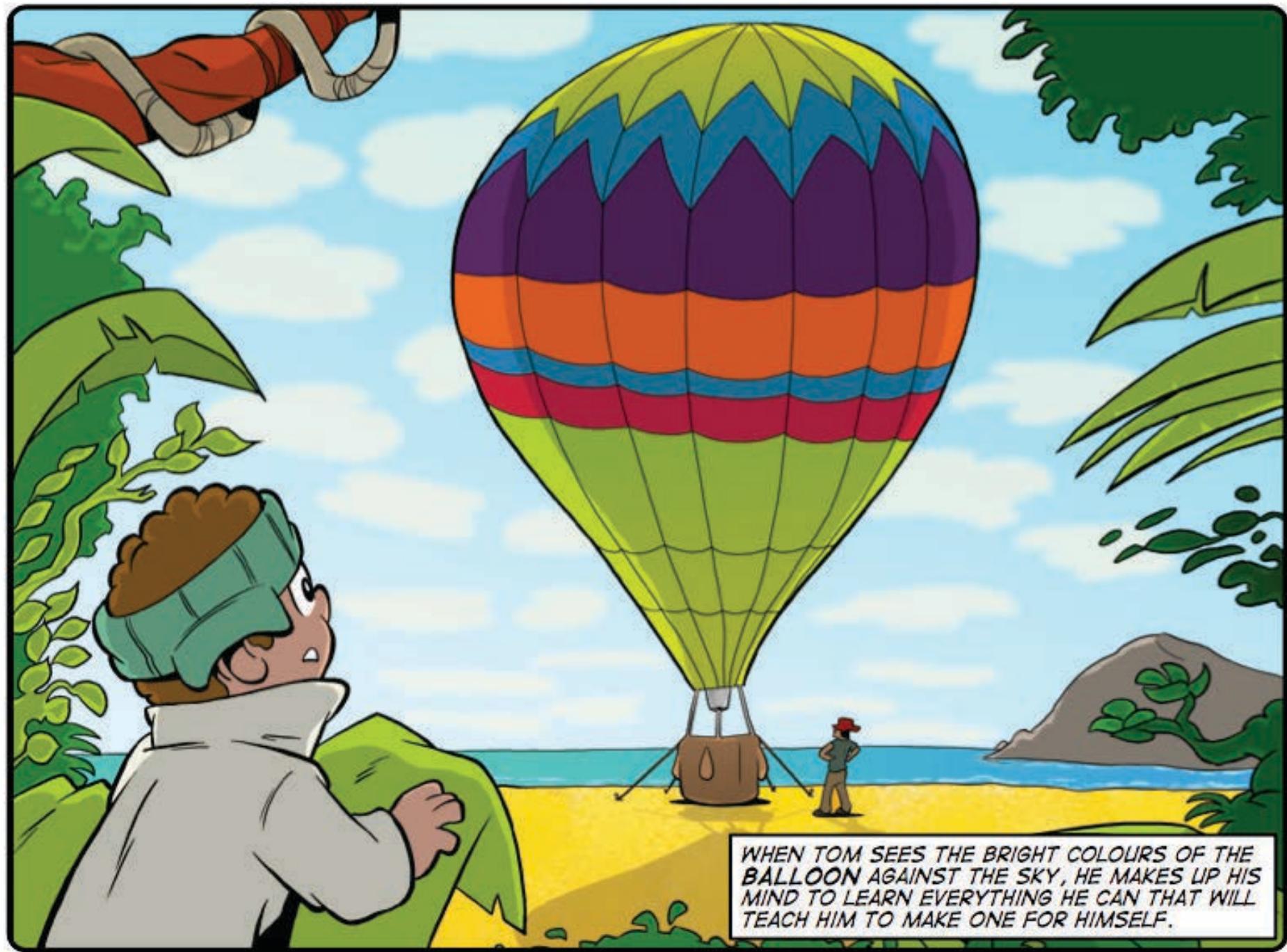


HOW WAS YOUR GAME, LAZ?



I HOPE IT WAS AS FUN AS OURS, LAZ!

## **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. I'M BASIL.  
FROM THE SKY!

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

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

SO HOW  
DOES IT  
WORK?



THE NEXT DAY...

MY AIM IS TO  
WORK OUT HOW  
TO SEND A  
BALLOON INTO  
THE UPPER  
ATMOSPHERE!

TEMPERATURE,  
WIND SPEED AND  
DIRECTION, AIR  
PRESSURE, TIME  
AND ALTITUDE!

I WILL DO A  
**SERIES** OF  
EXPERIMENTS.  
EACH TIME I WILL  
RECORD THE  
**SAME**  
INFORMATION.

32°  
O









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.



THE NEXT DAY, AFTER STUDYING HIS INFORMATION AGAIN, TOM TRIES A NEW THEORY.

MAYBE A SOFTER BALLOON CAN EXPAND MORE.



AND HIS THEORY PAYS OFF WHEN THE BALLOON TRAVELS UP FOR AGES BEFORE THE GAS INSIDE EXPANDS SO MUCH THAT IT POPS.

ALMOST THERE...



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...

COME ON BABY...  
RISE!

AND NOW MY  
TOUGHEST  
CHALLENGE BEGINS.  
HOW DO I GET YOU  
BACK TO EARTH  
SAFELY?

AND SECONDS LATER,  
THE ROPE FLIES  
OFF THE SPINDLE.

HE'S DONE  
IT! IT'S OUT  
OF ROPE!

LATER THAT NIGHT...

SO WHAT  
GOES UP AND  
COMES DOWN  
SAFELY?

WHAT GOES  
UP, MUST  
COME  
DOWN...

SAFELY  
AND  
SLOWLY?

... ONE THOUGHT  
MAKES HIM THINK...

EUREKA!

AND THEN TOM SPENDS THE REST OF  
THE NIGHT TURNING THAT ONE EUREKA  
THOUGHT INTO SOMETHING REAL!

... QUESTIONS TURN  
TO THOUGHTS,  
UNTIL EVENTUALLY...

THE NEXT DAY, AS  
TOM PREPARES  
HIS ROBOT TO  
TRAVEL UP WITH  
HIS BALLOON...

HIYA,  
LAZ!

WHY ARE  
YOU SO  
CHEERFUL?!



GRRRR-  
RUFF!

\* !! \*

I'VE FITTED MY  
ROBOT WITH AN  
ALTIMETER. WHEN IT  
COMES BACK DOWN  
TO EARTH, WE'LL  
KNOW EXACTLY HOW  
HIGH IT WENT.

DOWN TO  
EARTH? IN  
PIECES, YOU  
MEAN?

\* !@#\$ \*

SNARL-  
ROW-GR-  
RUFF!

ALL IS GOING  
WELL, UNTIL...

UNTIL  
LAZLO'S  
DOG  
JUMPS  
OUT OF  
HIS GRASP  
AND INTO  
THE  
BASKET!



WHOA!



REX! NO!









AND WHEN THUNDERBOLT  
ISLAND IS JUST A BLOB OF  
GREEN BELOW...



AND WHEN THE AIR BEGINS  
TO FREEZE POOR REX, THE  
ALTIMETER SENDS A  
SIGNAL TO TOM'S ROBOT  
TO POP THE BALLOON!





## **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.

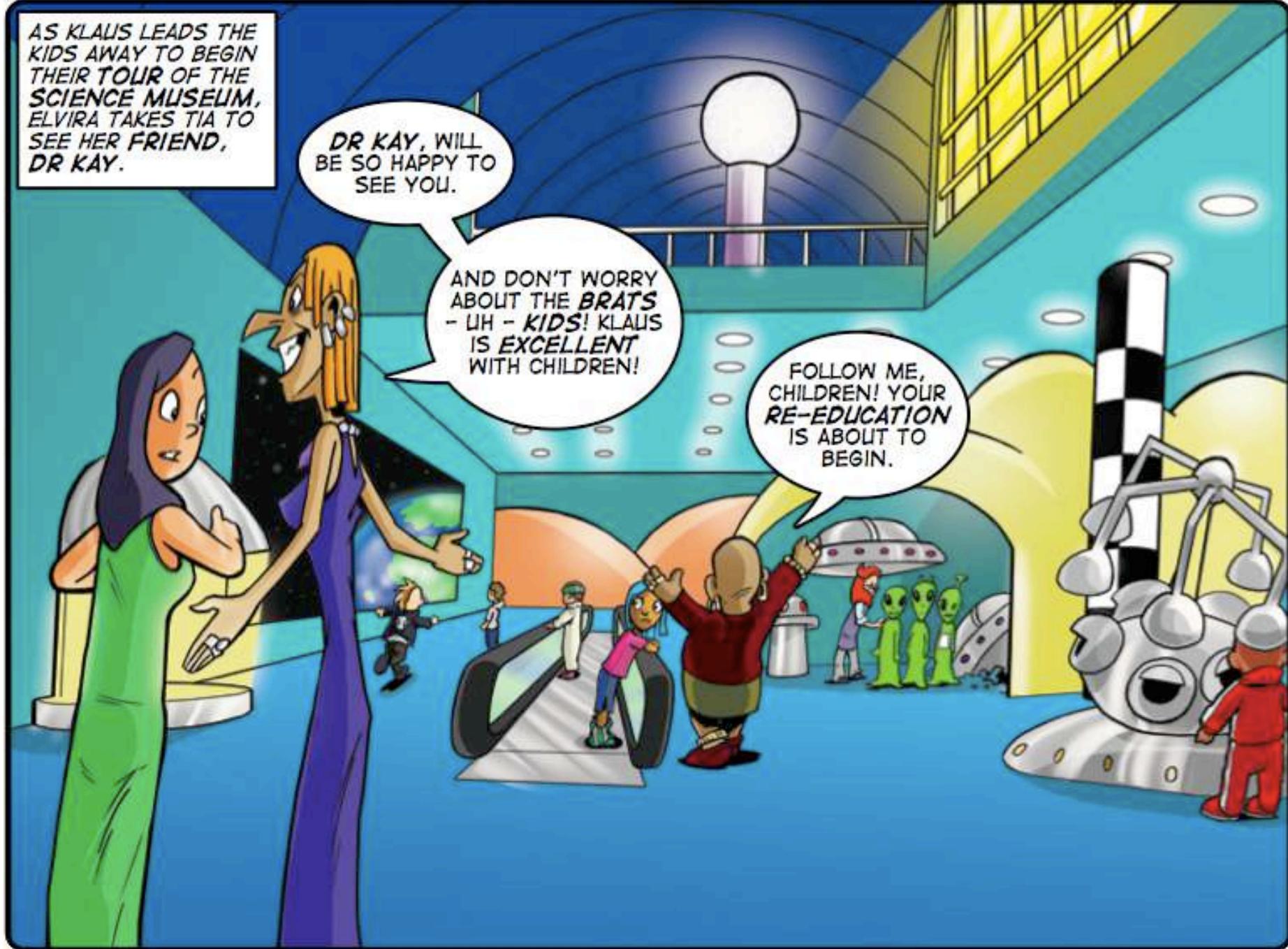


AS KLAUS LEADS THE KIDS AWAY TO BEGIN THEIR TOUR OF THE SCIENCE MUSEUM, ELVIRA TAKES TIA TO SEE HER FRIEND, DR KAY.

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.

MEANWHILE, ELVIRA LEADS  
TIA TO DR KAY'S OFFICE...

HE'S RIGHT  
IN HERE.

... AND INTO A TRAP!

DO AS WE SAY  
AND NO ONE  
GETS HURT.

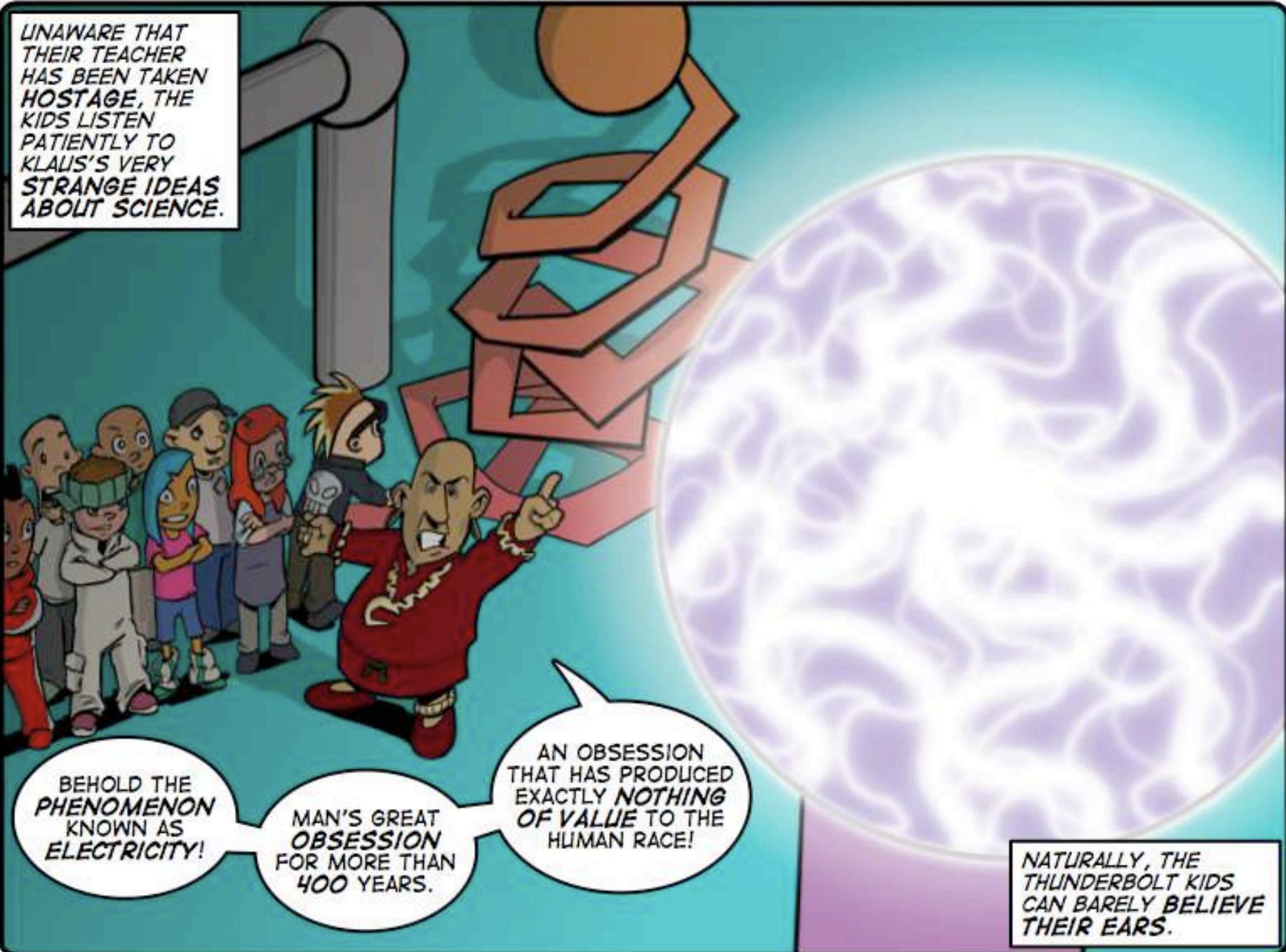
ELVIRA, HAS  
KLAUS GOT THE  
BRATS UNDER  
CONTROL?

OF COURSE,  
GUSTAV! THEY  
WILL BE NO  
TROUBLE AT  
ALL!

ALEX! ARE  
YOU  
ALRIGHT?



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



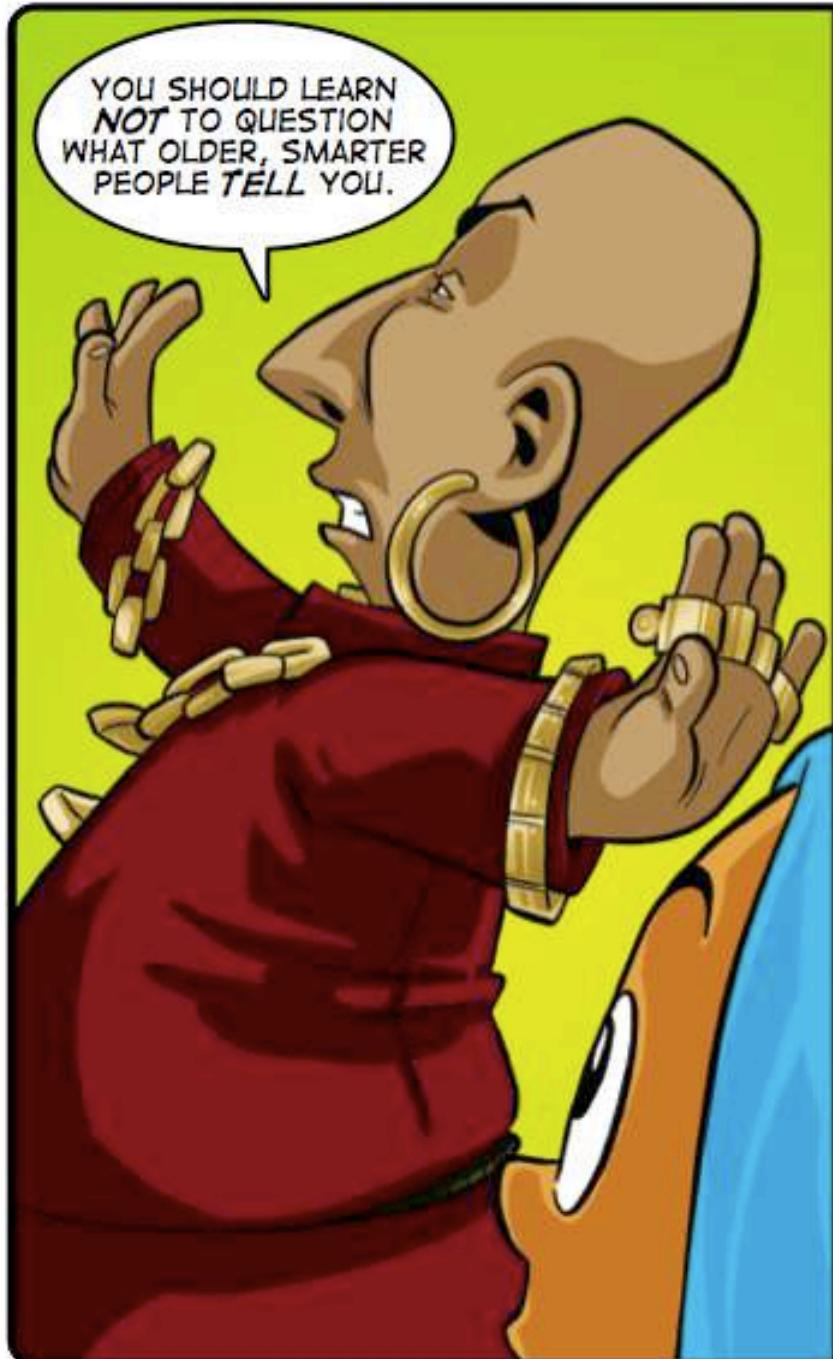
NOR CAN THEY HOLD  
THEIR TONGUES.

SO WHAT ABOUT  
ELECTRIC LIGHT? OR  
REFRIGERATION?

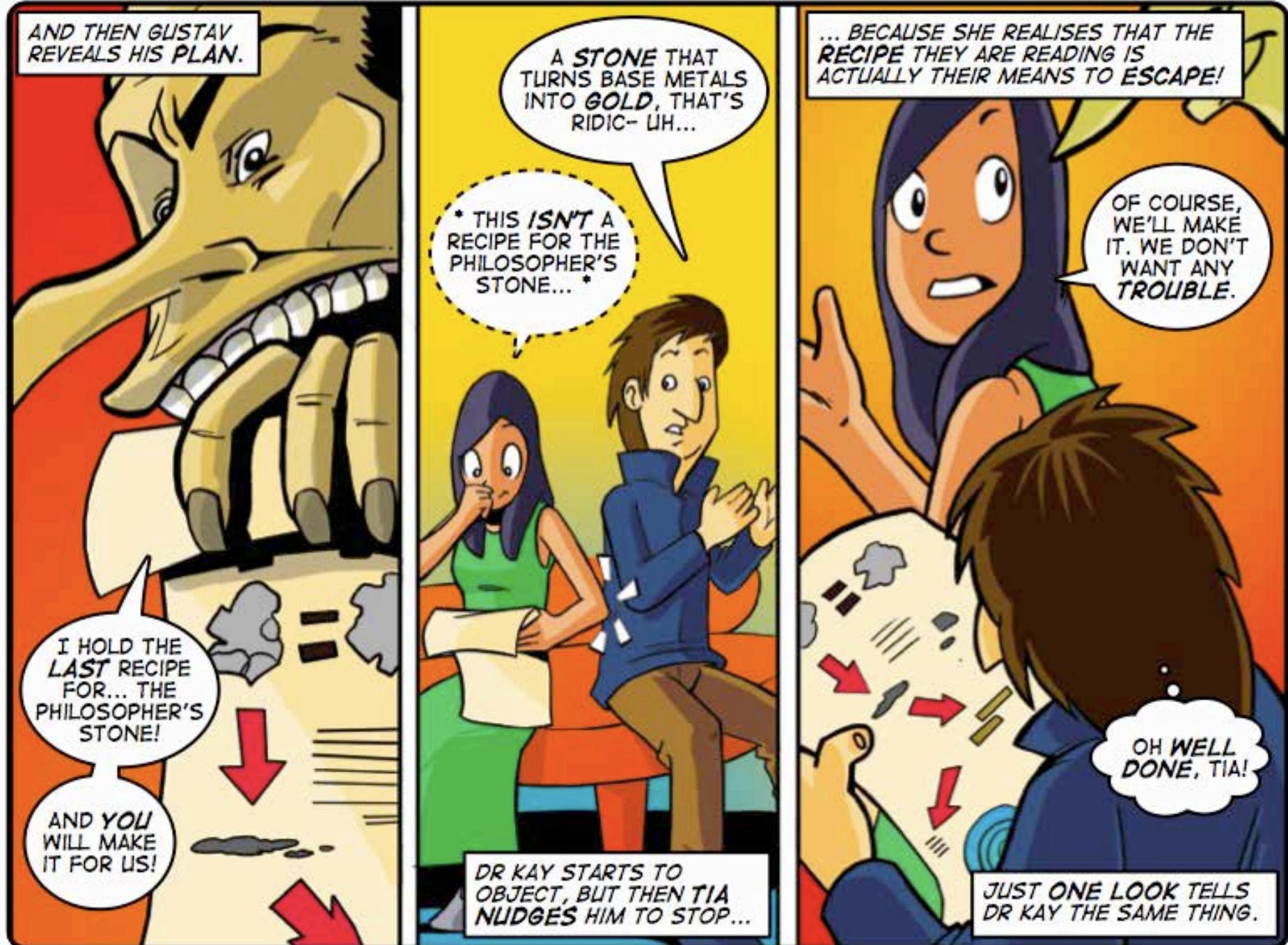
YEAH, OR HEATING?  
OR ANYTHING AT ALL  
THAT'S ELECTRONIC?

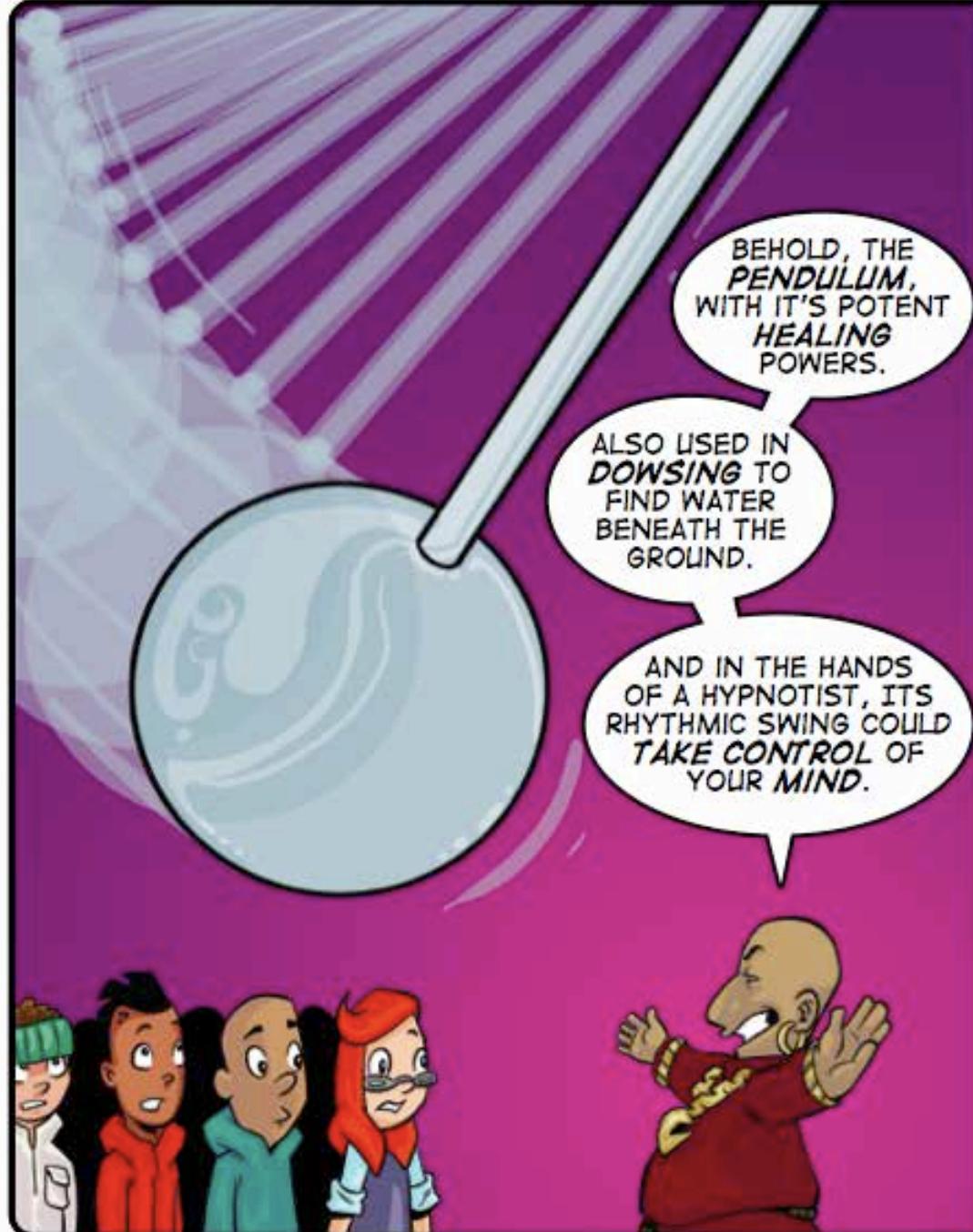
OR ANY OF THE MILLION  
INVENTIONS THAT DEPEND  
ON ELECTRICITY TO MAKE OUR  
LIVES BETTER, SAFER AND  
LONGER!



















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.

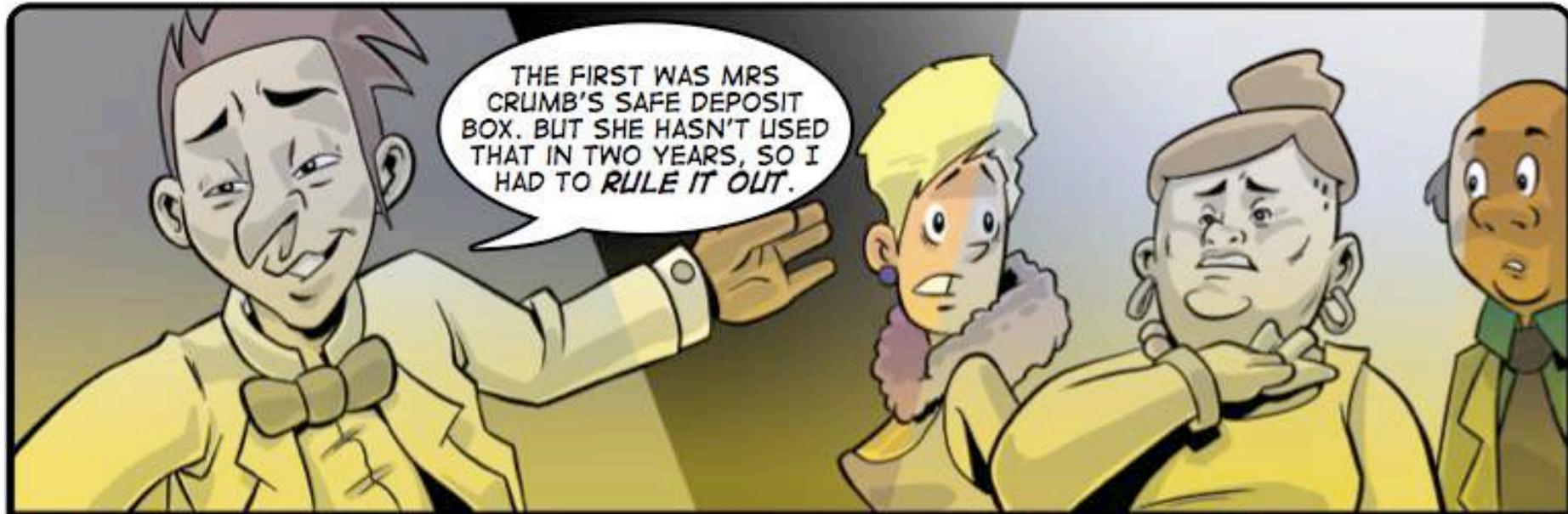
UH... YEAH.  
SORRY ABOUT THAT!

## **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.







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





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.

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?!

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

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...*



*... 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.



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!



KNOWING THAT JOJO  
WANTED TO SEE THE  
DIAMOND, THE KIDS  
MAKE THEIR WAY TO THE  
MANAGER'S OFFICE.



JUST AS THEY  
REACH THE DOOR,  
THEY HEAR...



INSIDE THE OFFICE,  
THE OWNER OF THE  
DIAMOND GROWLS  
ANGRILY TO THE  
THEATRE MANAGER.



MEANWHILE, IN A  
ROOM FULL OF OLD  
THEATRE PROPS...



BY THE TIME  
THEY FIND YOU,  
WE WILL BE LONG  
GONE.

AFTER LOCKING JOJO IN THE SARCOPHAGUS,  
TRENT TAYLOR TURNS TO HIS ACCOMPLICES:  
THE ENTIRE CAST OF THE PLAY!



POLICE WILL  
BE WATCHING  
THE AIRPORTS  
AND PORTS.

SO WE'LL SAIL  
OUT UNDER THEIR  
NOSES. IF  
YOU'LL EXCUSE  
THE PUN!

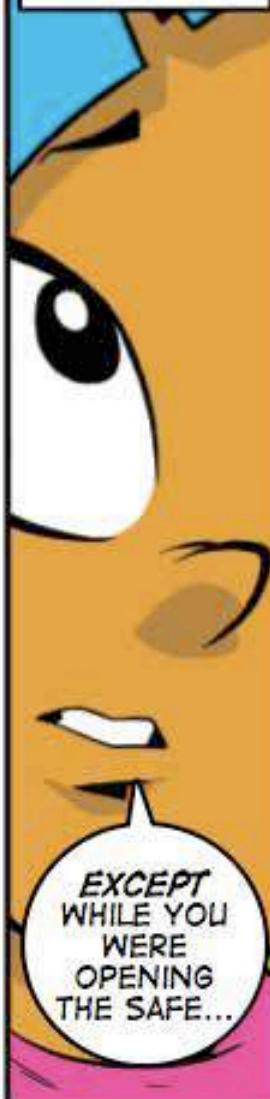
MEANWHILE, IN THE VIDEO  
ARCADE ACROSS THE STREET.



MEANWHILE, BACK IN THE  
THEATRE MANAGER'S OFFICE.



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



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.



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



CAN YOU  
HEAR THAT?  
THERE'S  
SOMEONE  
IN HERE.

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

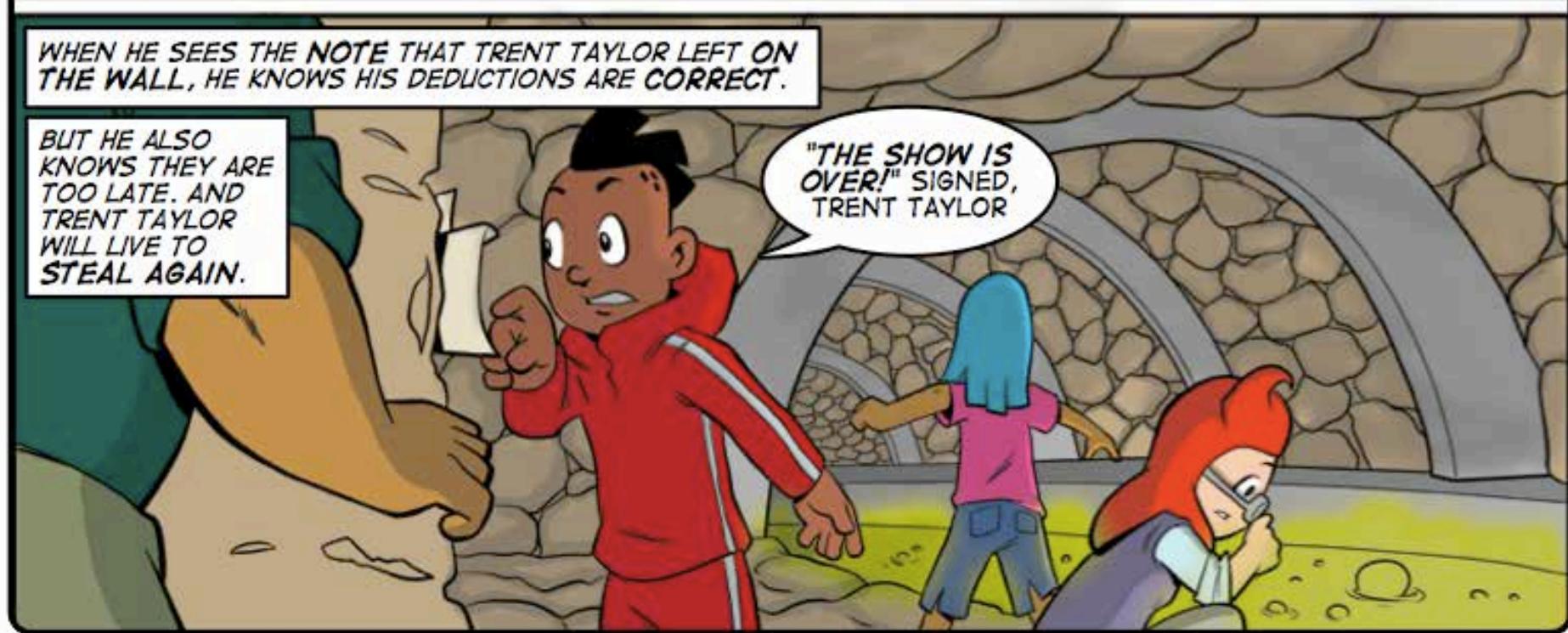


JOJO USED ALL THE THINGS HE HEARD TRENT TAYLOR SAY TO DEDUCE WHERE HE HAD GONE.



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.



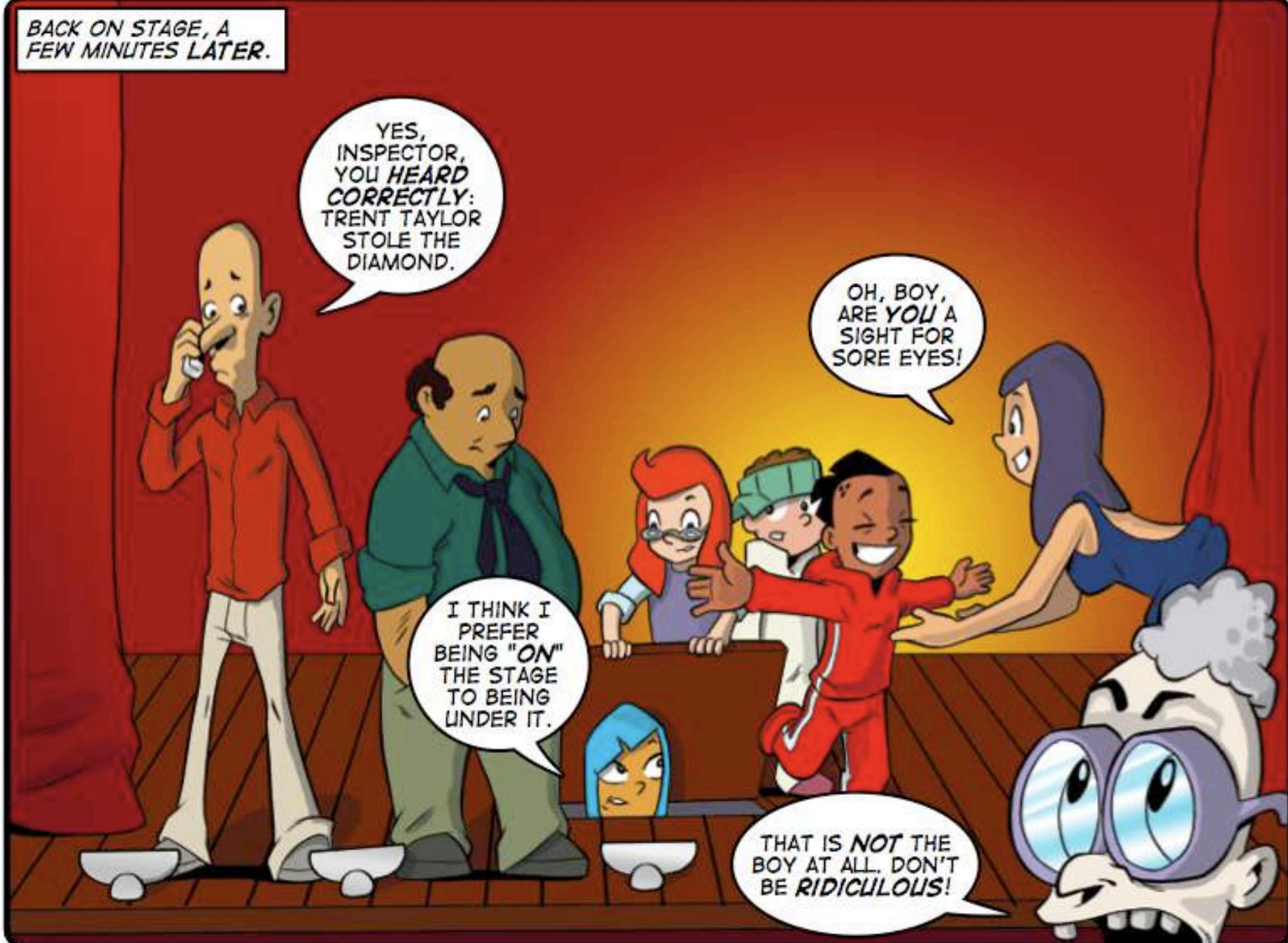
BACK ON STAGE, A FEW MINUTES LATER.

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.





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.





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







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... \*

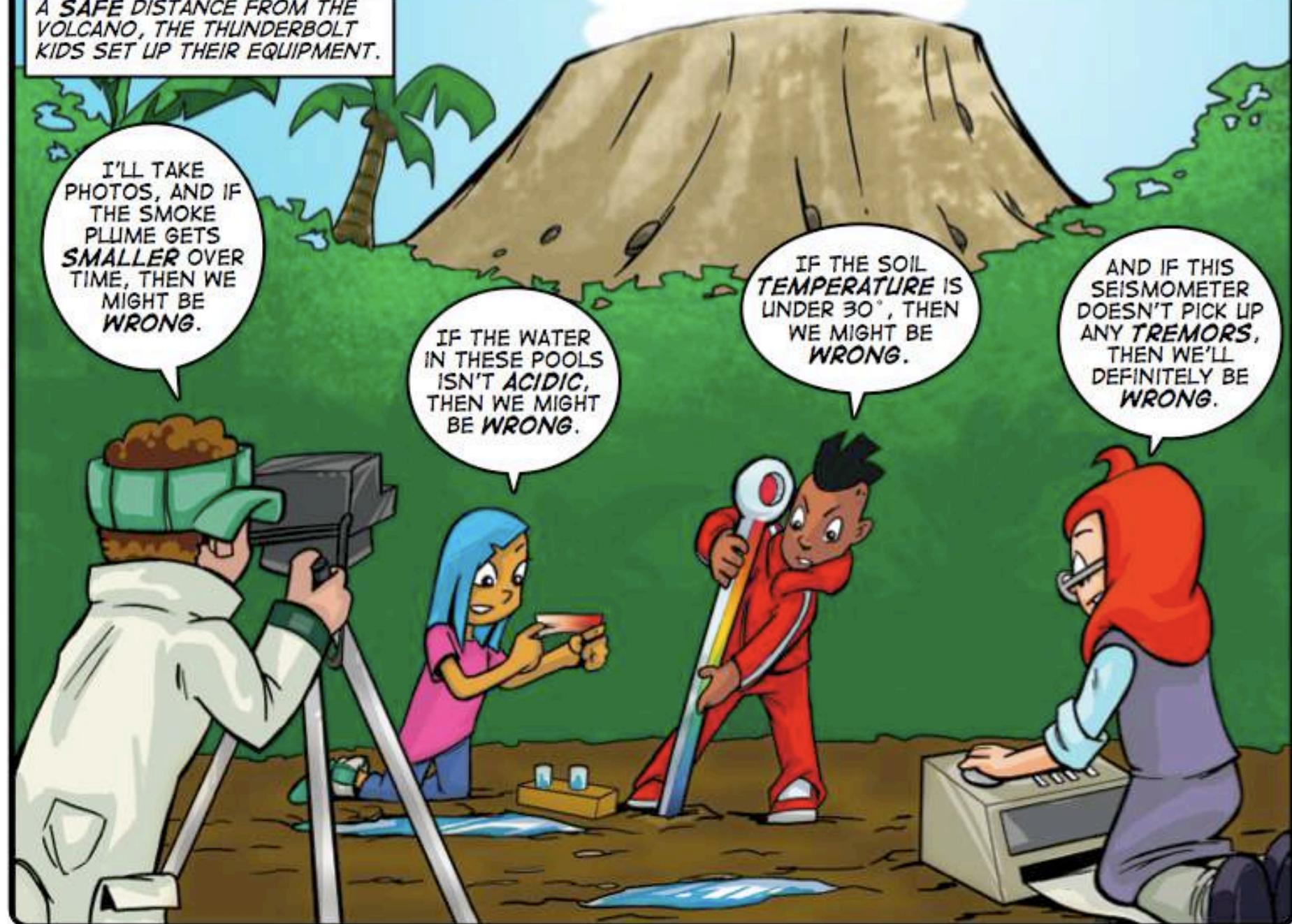
A **SAFE DISTANCE** FROM THE VOLCANO, THE THUNDERBOLT KIDS SET UP THEIR EQUIPMENT.

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  
**ACID**!

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

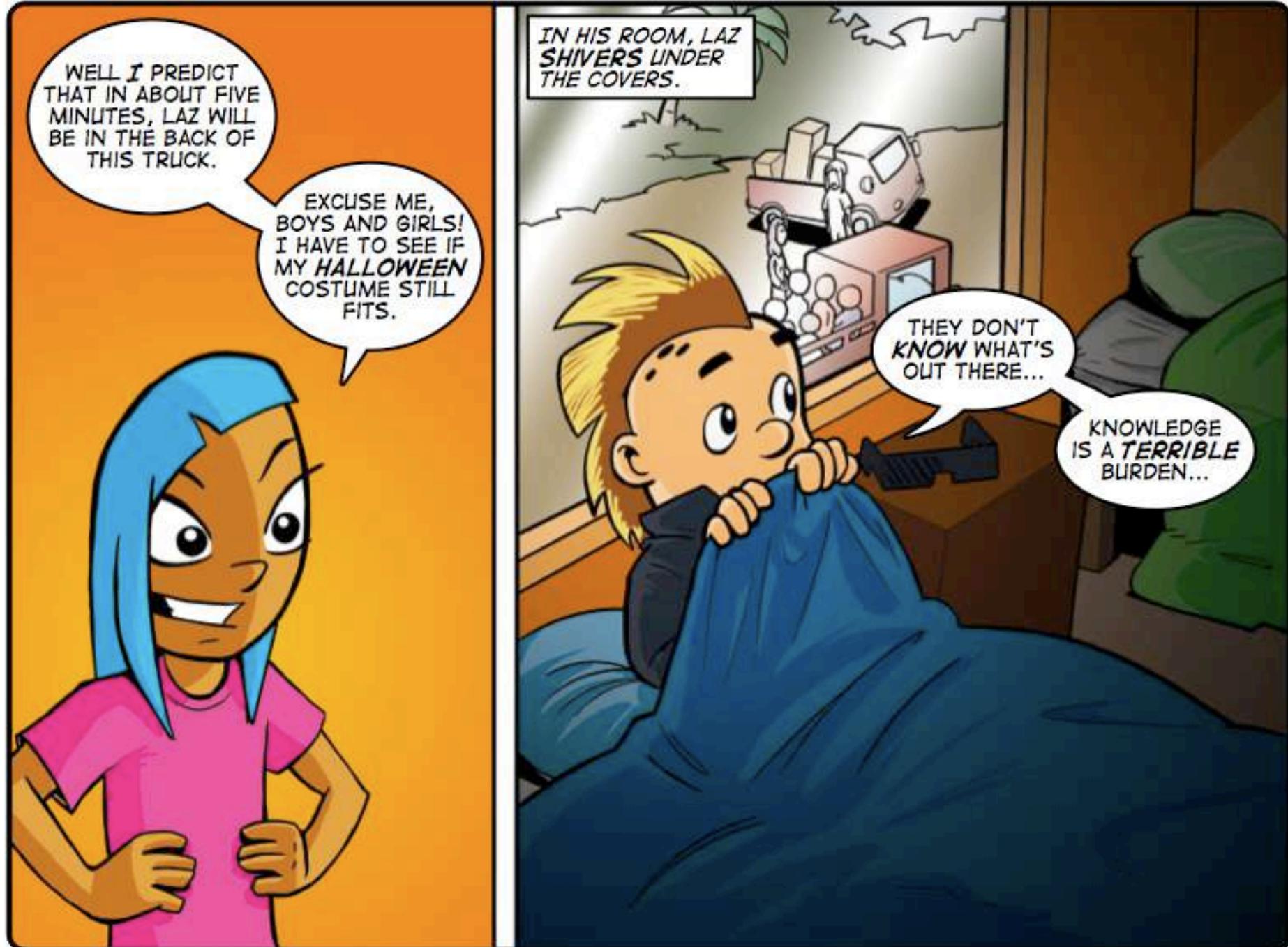
BUT THE MOST  
IMPORTANT SIGN  
IS MISSING! NO  
SEISMIC ACTIVITY.  
**NO SHAKES!**





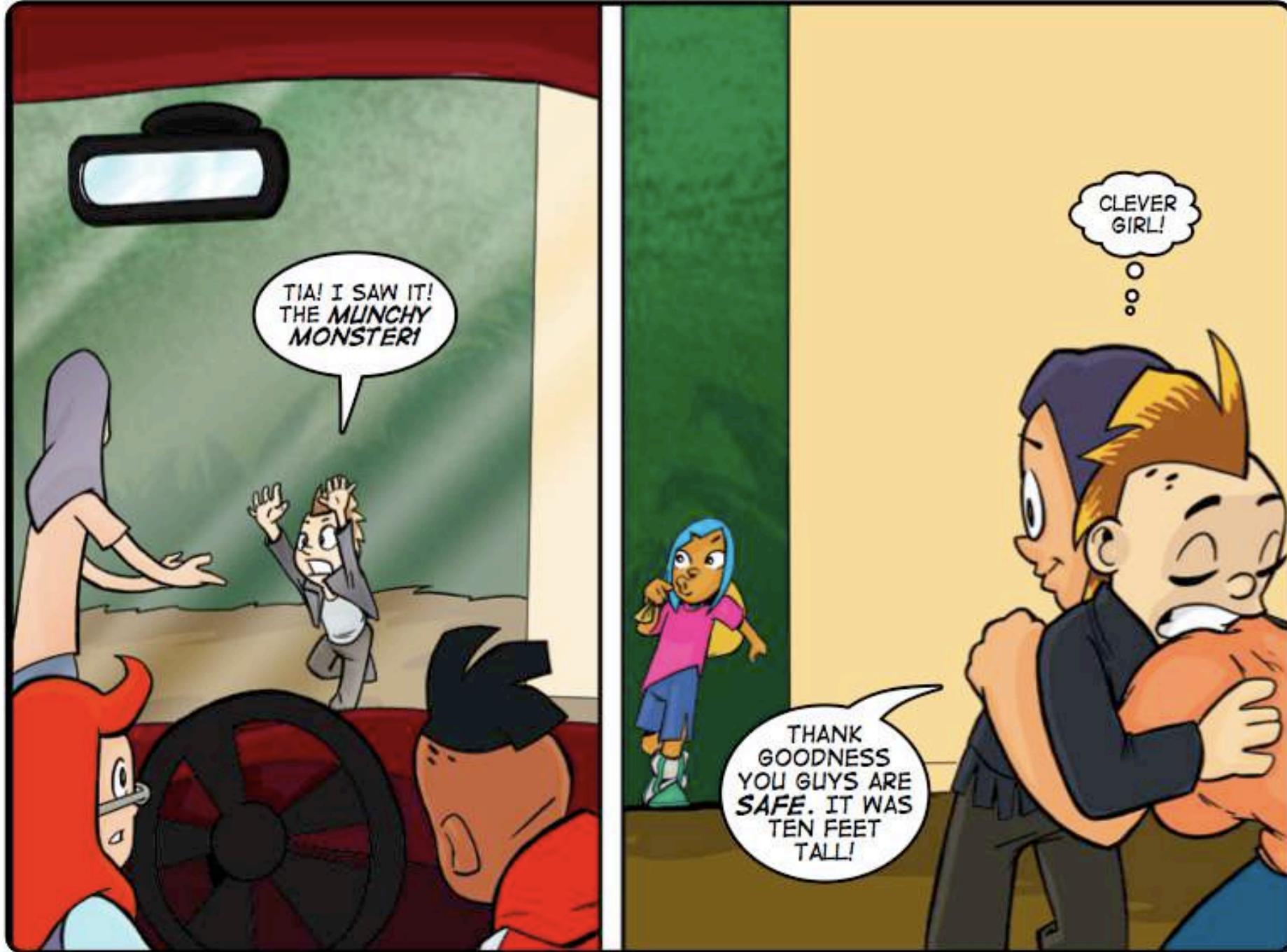




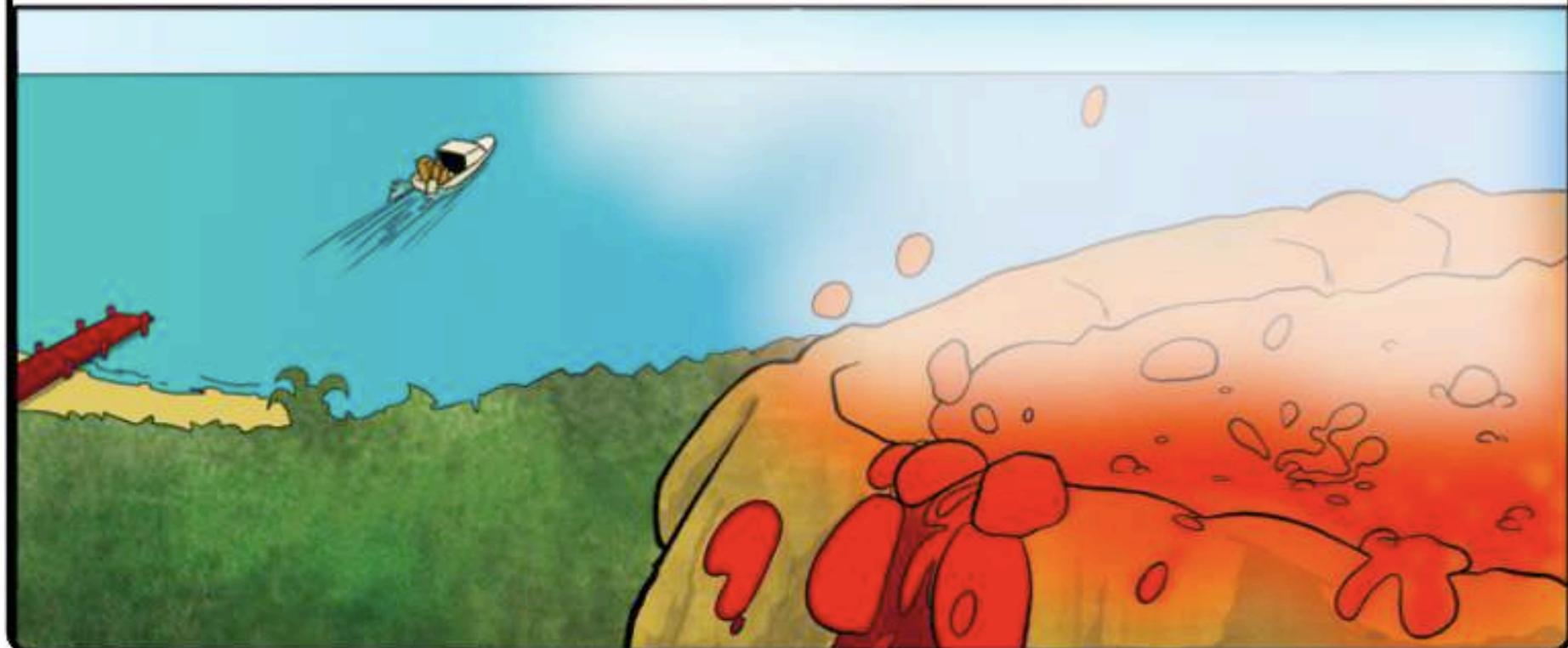


SUDDENLY, THE  
DOOR FLIES OPEN.





*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...



WHEN THE USUAL BRIGHT LIGHT DISAPPEARS, THE KIDS FIND THEMSELVES IN AN EXTRAORDINARY ROOM.

WELCOME TO THE LAB OF THE GREATEST INVENTOR IN HISTORY: THOMAS ALVA EDISON.

YOU MUST BE LOVING THIS, TOM!

WOW!



IN THE GLOW OF EDISON'S LIGHT BULB, TOM FEELS LIKE HE HAS THE POWER TO THINK OF A MILLION NEW IDEAS!



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!?!@#



WHILE SOME KIDS SHIVER IN FEAR, TOM REALISES THAT THIS IS HIS CHANCE.

FIRE SCARE THE ANIMALS, SO THEY COME DOWN HERE.

THE SCHOOL WAS INFESTED WITH SNAKES LAST TIME!

IT'S HIS CHANCE TO INVENT SOMETHING GREAT!

WAIT UP!

THE SNAKETRAPS WE USE AREN'T PERFECT, BUT LUCKILY NONE OF THE SNAKES ARE VENOMOUS.

THERE'S NO TIME, JOJO! WE MUST GET STARTED RIGHT AWAY!





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 FARAH WILL BUY ONE!



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.

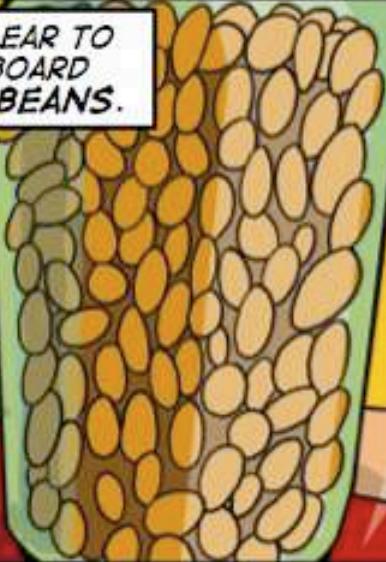
YEAH,  
SNAKES  
DON'T LIKE  
LAZY BAIT.

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.

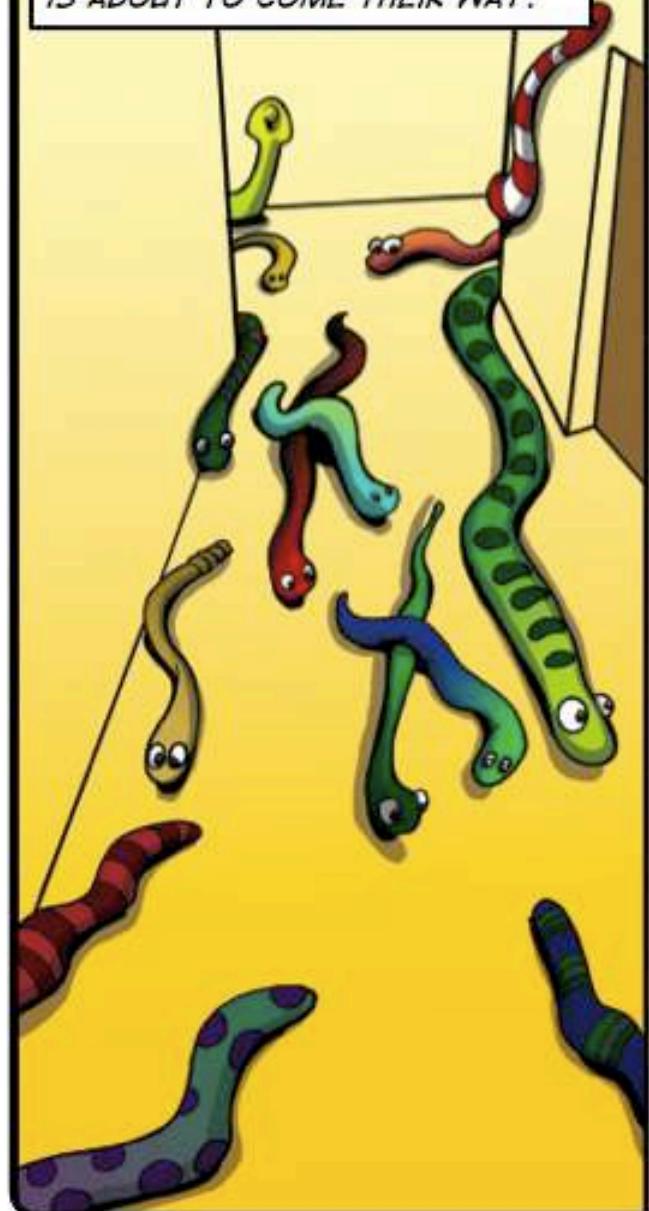
BUT A CERTAIN KIND OF MOTH LAYS ITS EGGS INSIDE THEM. AND WHEN THE LARVAE MOVE THEY MAKE THE SEEDS "JUMP".

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

THEY'LL KEEP THE BAIT JUMPING ALL DAY LONG!

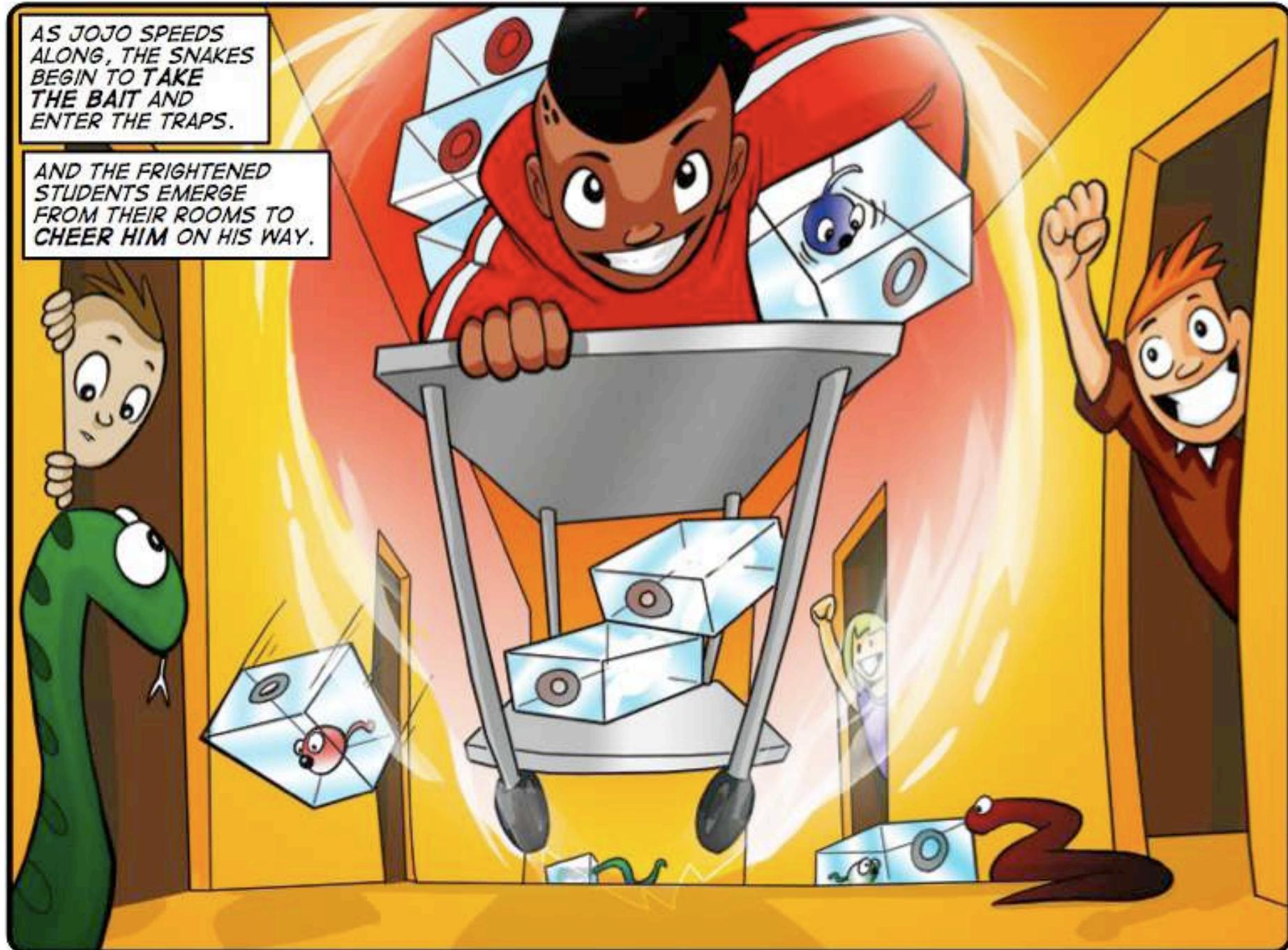


IN THE CORRIDORS OUTSIDE THE LAB, THE **SLITHERING SERPENTS** HAVE NO IDEA WHAT IS ABOUT TO COME THEIR WAY.



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 HUNDEBROLT KIDS



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