

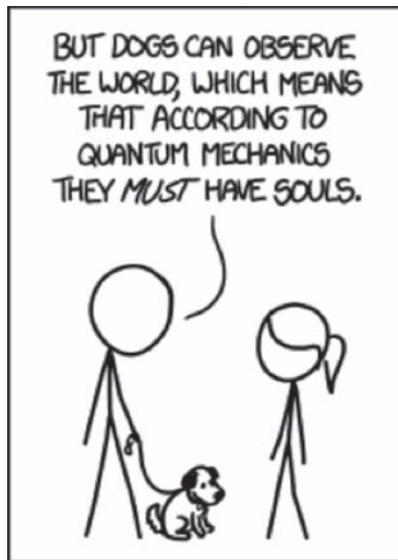
SPECTRA

QUANTUM LEAP



Written by Rebecca Thompson, Ph.D.

Illustrated by Kerry G. Johnson



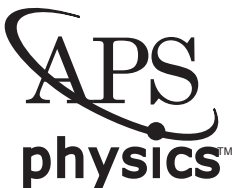
PROTIP: YOU CAN SAFELY
IGNORE ANY SENTENCE THAT
INCLUDES THE PHRASE
"ACCORDING TO
QUANTUM MECHANICS"

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PhysicsQuest: Spectra's *Quantum Leap* (Issue #6)

Written by Rebecca Thompson, Ph.D.

Illustrations by Kerry G. Johnson

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It's another school year for Lucinda Hene (Spectra). Her middle school, Nikola Tesla Junior High is in ruins after the villainous swim coach Henri Toueaux (H2O) destroyed the gym and aquatic center during the swim meet championship in Issue #5. While the school is being renovated, Lucy, Kas, Ruby and Gordy have been scattered between three different schools as they wait for their school to be rebuilt. This is where the story begins...

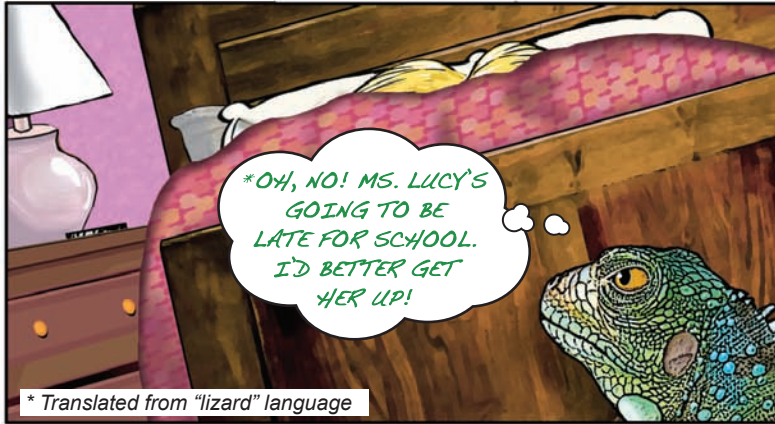
SPECTRA'S QUANTUM LEAP

WRITTEN BY REBECCA THOMPSON, PH.D.
ILLUSTRATED BY KERRY G. JOHNSON

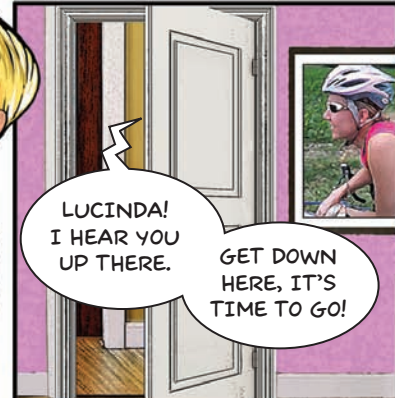
It's 5:50 a.m. at the Hene household and you can hear the blaring sound of Lucy's alarm clock app!



The noise doesn't wake her. However, the loud sound does awaken Lucy's pet iguana, "Jiggles".



OK, YOU SILLY LIZARD, I'M UP.

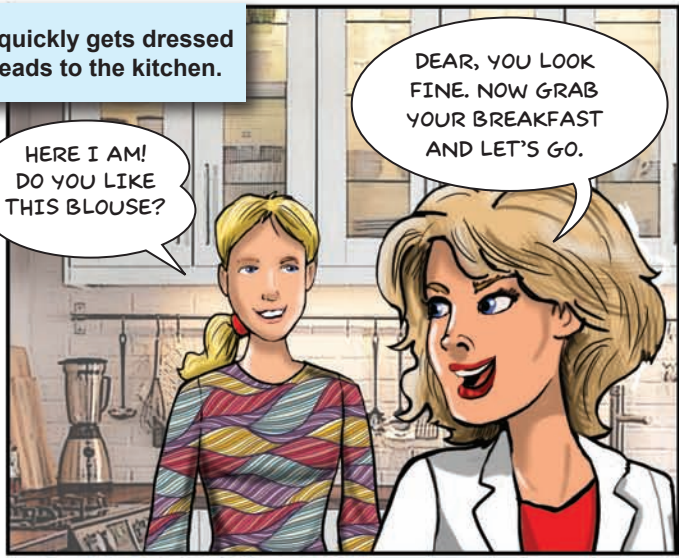




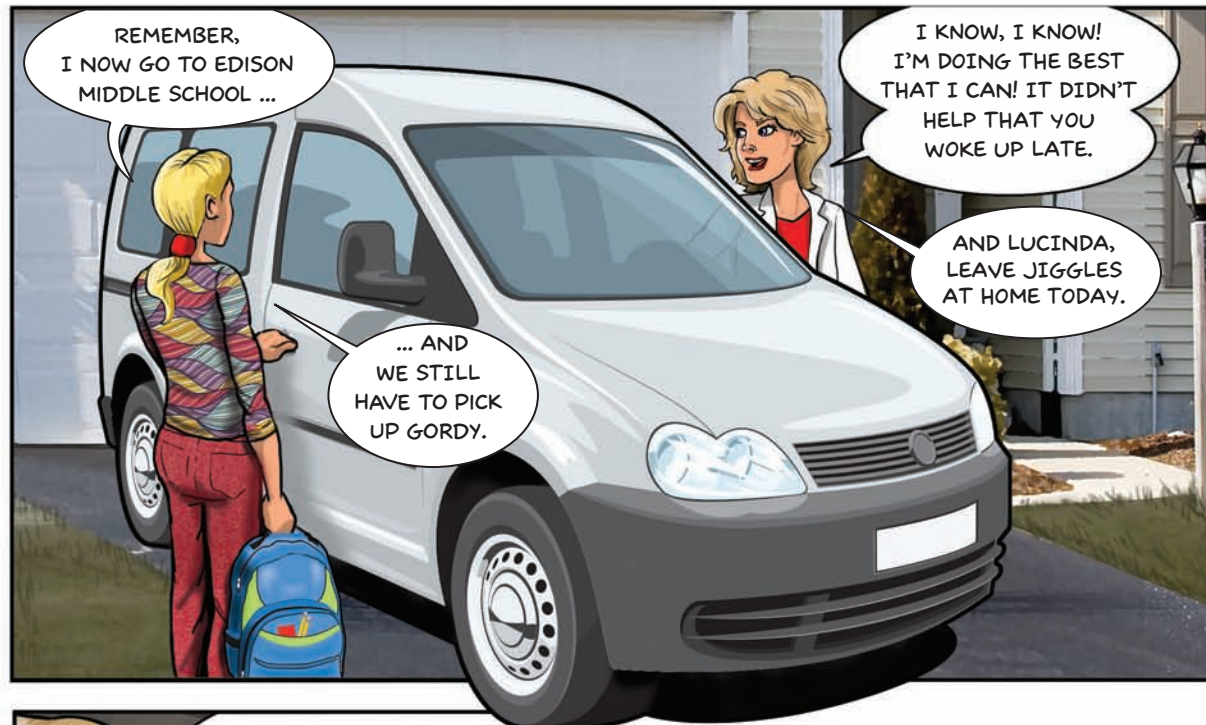
MOM, GIMME FIVE MINUTES, I JUST GOT OUT OF THE SHOWER!

Lucy quickly gets dressed and heads to the kitchen.

HERE I AM! DO YOU LIKE THIS BLOUSE?



DEAR, YOU LOOK FINE. NOW GRAB YOUR BREAKFAST AND LET'S GO.



REMEMBER, I NOW GO TO EDISON MIDDLE SCHOOL ...

I KNOW, I KNOW! I'M DOING THE BEST THAT I CAN! IT DIDN'T HELP THAT YOU WOKE UP LATE.

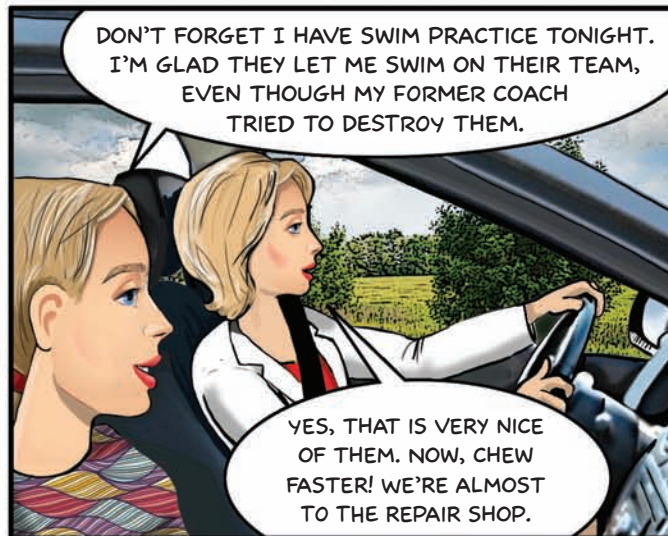
AND LUCINDA, LEAVE JIGGLES AT HOME TODAY.

... AND WE STILL HAVE TO PICK UP GORDY.



ANYWAY, YOUR FATHER PICKED UP GORDY EARLIER. WE'LL MEET THEM AT THE CAR REPAIR SHOP. I HAVE TO DROP OFF THE VAN TO GET THE BRAKES FIXED.

YOUR DAD WILL DRIVE YOU BOTH TO SCHOOL. THIS WAS SO MUCH EASIER WHEN YOU WENT TO THE SAME SCHOOL! NOW YOU AND YOUR FRIENDS ARE ALL OVER THE PLACE!

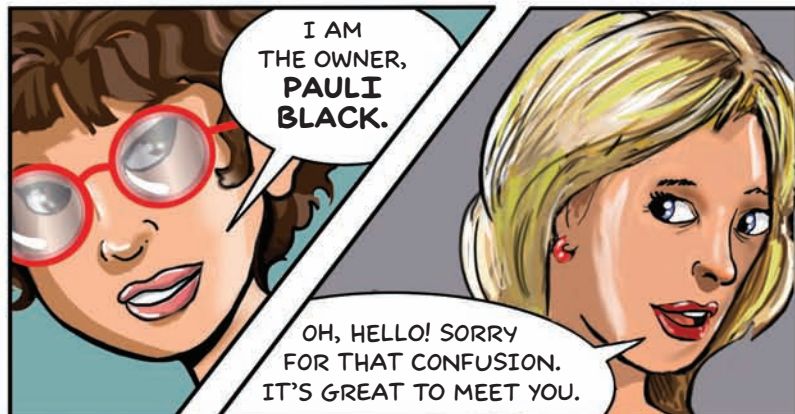


DON'T FORGET I HAVE SWIM PRACTICE TONIGHT. I'M GLAD THEY LET ME SWIM ON THEIR TEAM, EVEN THOUGH MY FORMER COACH TRIED TO DESTROY THEM.

YES, THAT IS VERY NICE OF THEM. NOW, CHEW FASTER! WE'RE ALMOST TO THE REPAIR SHOP.



I GUESS I'M HERE NOW
INSTEAD OF THERE
BECAUSE SHE LOOKED AT ME.



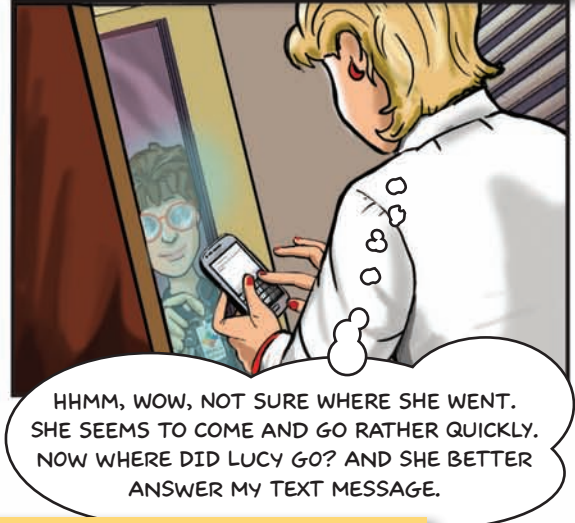


DO YOU HAVE TIME TO CHECK MY BRAKES TODAY?

CERTAINLY, I WILL CALL YOU WHEN THE WORK HAS BEEN COMPLETED.

GREAT, HERE ARE MY KEYS.

The Quantum Mechanic takes the van keys from Dr. Hene then slowly fades when Dr. Hene isn't looking.

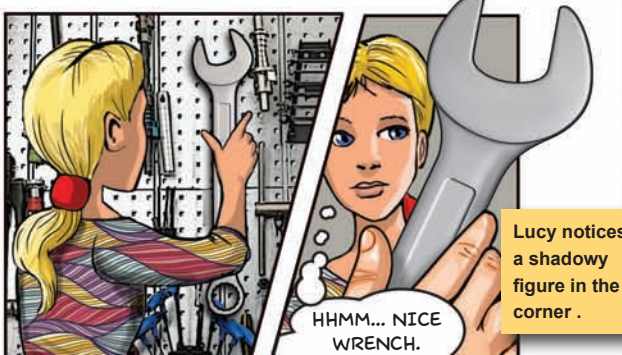


HHMM, WOW, NOT SURE WHERE SHE WENT. SHE SEEMS TO COME AND GO RATHER QUICKLY. NOW WHERE DID LUCY GO? AND SHE BETTER ANSWER MY TEXT MESSAGE.

Elsewhere in the shop, Lucy doesn't reply to her mother's text message. While looking for the restroom, she takes the wrong door and ends up in the garage.

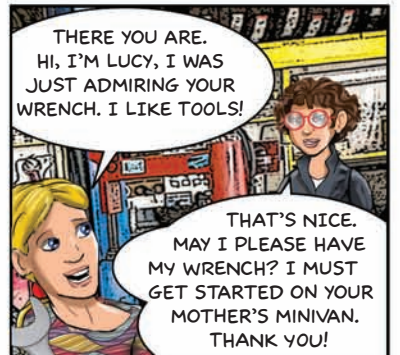


She's not alone.



HHMM... NICE WRENCH.

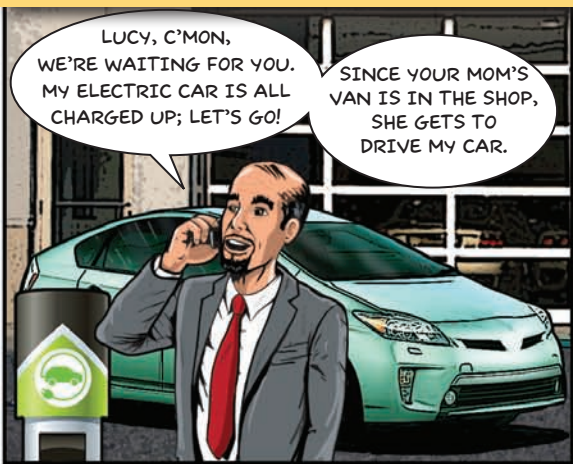
Lucy notices a shadowy figure in the corner.



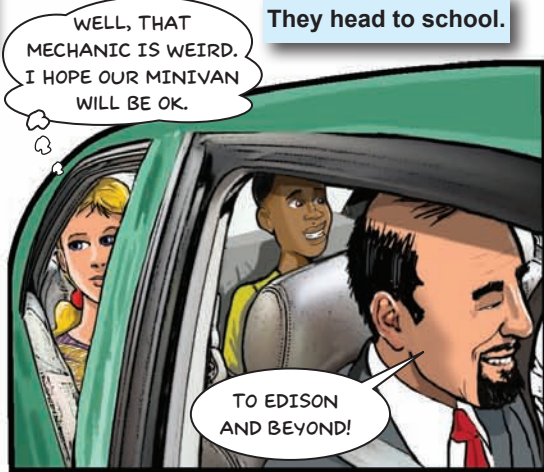
THERE YOU ARE. HI, I'M LUCY, I WAS JUST ADMIRING YOUR WRENCH. I LIKE TOOLS!

THAT'S NICE. MAY I PLEASE HAVE MY WRENCH? I MUST GET STARTED ON YOUR MOTHER'S MINIVAN. THANK YOU!

After being directed back to the front, Lucy sees that her dad and Gordy have arrived.



They head to school.



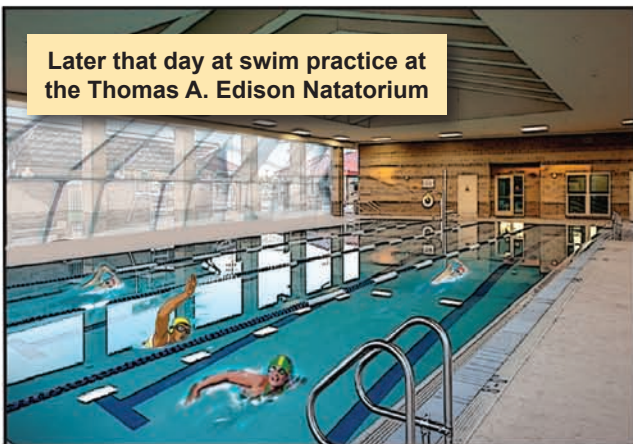
GUYS, I'LL BE HOME AFTER SWIM PRACTICE.

THANK YOU FOR THE RIDE HENE FAMILY.

HAVE A NICE DAY!



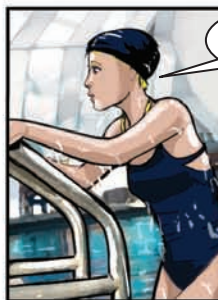
Later that day at swim practice at the Thomas A. Edison Natatorium



OK, ONE MORE HARD SET! WE STILL HAVE 30 MINUTES OF PRACTICE TO TOUGHEN YOU GUYS UP!

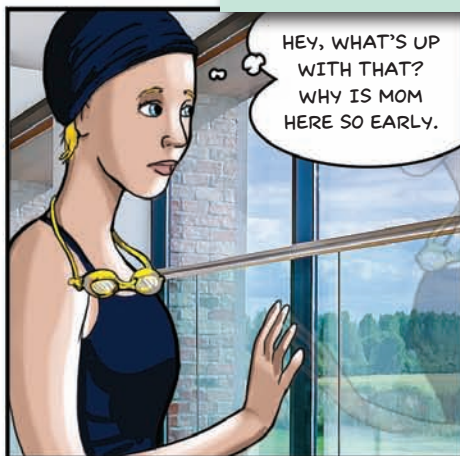


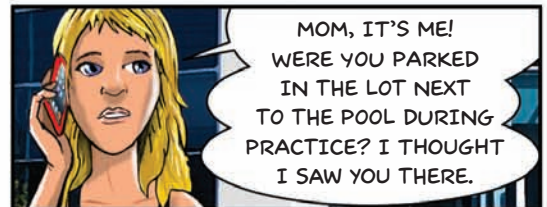
I'LL BE RIGHT BACK.



As Lucy heads to the locker room, she glances out towards the parking lot. She thinks she sees her mother's minivan.

HEY, WHAT'S UP WITH THAT? WHY IS MOM HERE SO EARLY.



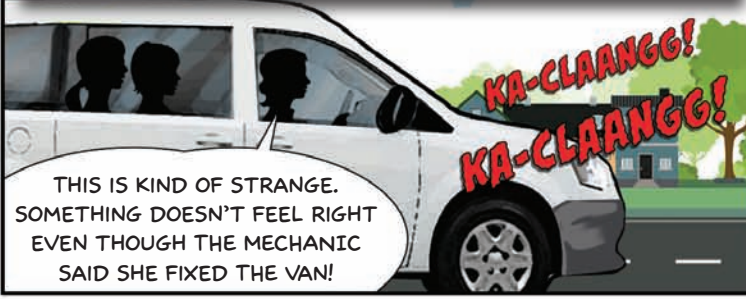


THEN I REALIZED IT WAS JUST A BIG SEMI-TRUCK. IT WAS STRANGE PERHAPS I WAS DAYDREAMING AND THINKING ABOUT WORK; MY MIND WAS ALL OVER THE PLACE. I'LL BE THERE SOON.

HUH, SOMETHING'S ODD. FIRST A GHOST IMAGE OF MS. BLACK AND NOW A GHOST IMAGE OF THE VAN. HMMM ... I'M GOING TO HAVE TO TRY AND FIND THIS MECHANIC.



After picking up Lucy, they go get Ruby. The girls are having a sleepover at the Hene house. As they drive home, the van starts to do some interesting things.



THIS IS KIND OF STRANGE. SOMETHING DOESN'T FEEL RIGHT EVEN THOUGH THE MECHANIC SAID SHE FIXED THE VAN!



Dr. Hene steps on the gas pedal. The vehicle instantly jumps from 35 mph to 65 mph; there's no intermediate speed. Everyone is thrown backwards ...

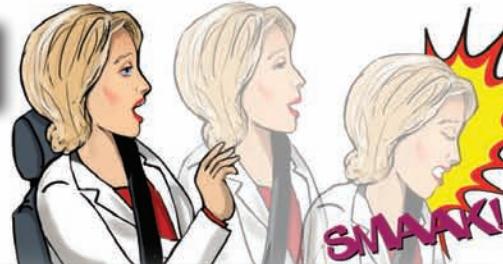
... and out of control!



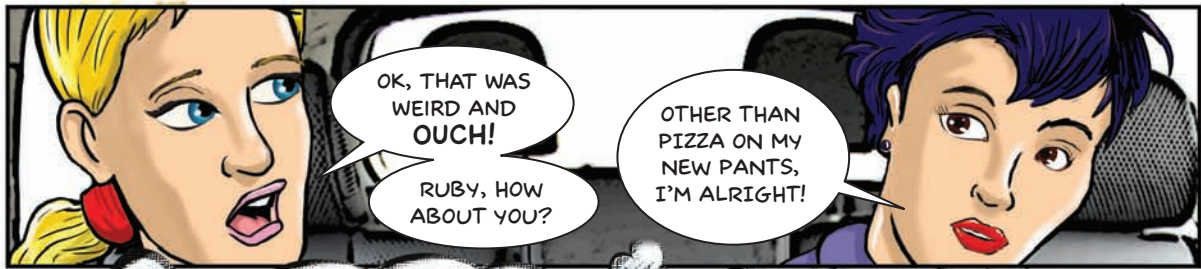
GIRLS, GRAB HOLD OF SOMETHING! I HAVE TO SLOW US DOWN!

Dr. Hene slams on the brakes!

I HOPE THE BRAKES REALLY WORK.



The van instantly slows down to 35 mph. Everyone lurches forward then slams back into their seat belts!



OK, THAT WAS WEIRD AND OUCH!
RUBY, HOW ABOUT YOU?

OTHER THAN PIZZA ON MY NEW PANTS, I'M ALRIGHT!



Suddenly, they all end up back home. They don't know how they got there.

WE WENT FROM 35 MPH TO 65 MPH AND BACK AGAIN. I DON'T REMEMBER US GOING LIKE, 45 MPH. ONE OR THE OTHER, THAT CAN'T BE RIGHT. I KNOW THAT I DAYDREAM A LOT, BUT I DON'T THINK I WAS DAYDREAMING DURING THE ENTIRE SECOND HALF OF THAT TRIP. I JUST DON'T REMEMBER IT!



YOU WEREN'T DAYDREAMING. WE DID JUST SUDDENLY GET TO MY HOUSE. AND YEAH, I'M SURE THAT THIS VAN ISN'T THE ONLY THING "NOT RIGHT" ABOUT THIS TOWN. THE KILLER SWIM COACH AND A GIRL WITH LASER POWERS ARE PERFECTLY NORMAL. WE SHOULD CHECK OUT THIS MECHANIC PERSON.



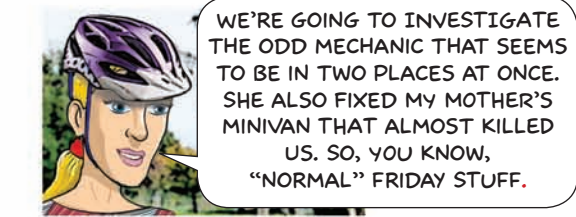
WHOZZ!!
WHOZZ!!

As they ride toward the garage, they run into ...

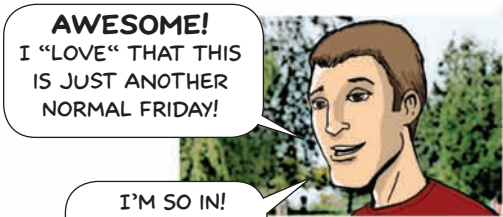


KAS!
LUCY LOOK OVER THERE.

HEY RUBY! HEY LUCY! SLOW DOWN! WHERE ARE YOU TWO GOING? WHEREVER IT IS, I HOPE IT'LL BE FUN!



WE'RE GOING TO INVESTIGATE THE ODD MECHANIC THAT SEEMS TO BE IN TWO PLACES AT ONCE. SHE ALSO FIXED MY MOTHER'S MINIVAN THAT ALMOST KILLED US. SO, YOU KNOW, "NORMAL" FRIDAY STUFF.



AWESOME!
I "LOVE" THAT THIS IS JUST ANOTHER NORMAL FRIDAY!

I'M SO IN!
LET ME SEND A TEXT TO GORDY.



Meet @Black Body Repair on Maple St.; Evil Mechanic on the loose!

Woot! I'll be there! - Gman



The adventurous trio head to the garage.

As they reach the garage, Gordy is there waiting for them.



SO WHAT EXACTLY IS GOING ON HERE?

Ruby and Lucy give Gordy a brief summary about the odd behavior of the minivan.

OK, WHAT'S OUR NEXT MOVE?



ALRIGHT, YOU GUYS STAY HERE. I'M GOING TO TRY AND FIND HER. MAYBE SHE CAN CLEAR THIS UP.



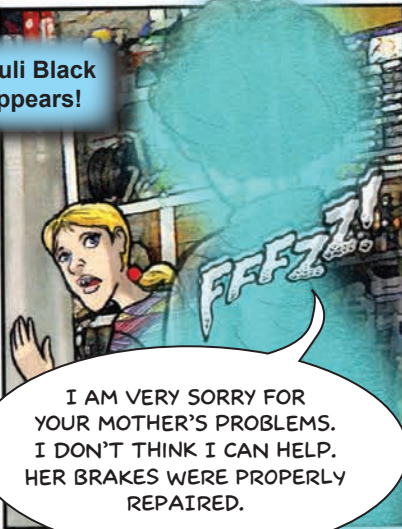
MS. BLACK, ARE YOU HERE?

PLEASE COME TALK TO ME.

MY MOM'S MINIVAN HAS BEEN DOING SOME UNUSUAL THINGS SINCE YOU "FIXED" IT.



Pauli Black appears!



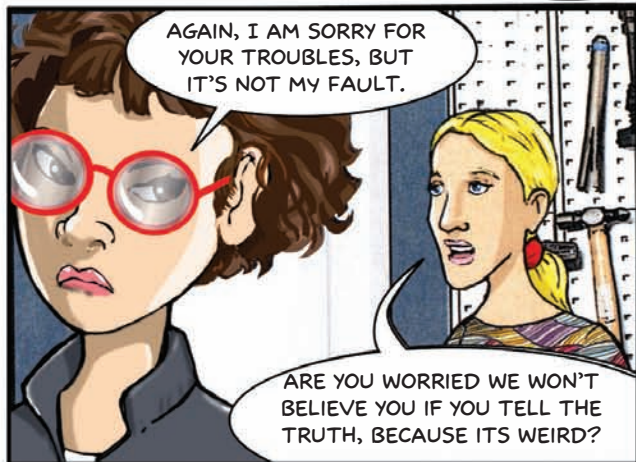
I AM VERY SORRY FOR YOUR MOTHER'S PROBLEMS. I DON'T THINK I CAN HELP. HER BRAKES WERE PROPERLY REPAIRED.

LOOK, I KNOW YOU MUST'VE DONE SOMETHING! THE VAN IS DOING THINGS NO VAN SHOULD DO. IT ONLY HAS A FEW SPEEDS, IT CAN BE IN TWO PLACES AT ONCE AND IT'S MOVING FROM ONE PLACE TO ANOTHER ALMOST INSTANTANEOUSLY!



AND I'M NO STRANGER TO WEIRD POWERS!

AGAIN, I AM SORRY FOR YOUR TROUBLES, BUT IT'S NOT MY FAULT.



ARE YOU WORRIED WE WON'T BELIEVE YOU IF YOU TELL THE TRUTH, BECAUSE IT'S WEIRD?

YES.

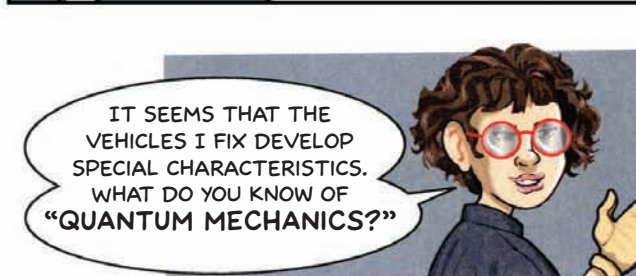


WELL DON'T BE WORRIED. I CAN TURN INTO A LASER!

AND THAT'S JUST AS WEIRD AS ACCIDENTALLY MAKING DISAPPEARING MINIVANS. SO SPILL IT! WHAT HAPPENED? WHAT CAN THIS AMAZING MINIVAN DO?



IT SEEMS THAT THE VEHICLES I FIX DEVELOP SPECIAL CHARACTERISTICS. WHAT DO YOU KNOW OF "QUANTUM MECHANICS?"



NOT MUCH, JUST WHAT I'VE OVERHEARD MY PARENTS TALKING ABOUT. THEY'RE LASER SCIENTISTS. I OCCASIONALLY DO PAY ATTENTION DURING DINNER CONVERSATION.

THEN YOU KNOW THAT IN QUANTUM MECHANICS PART OF A PARTICLE CAN BE IN ONE PLACE AND PART IN ANOTHER AT THE SAME TIME. HOWEVER, IF YOU LOOK AT PART OF IT, IT ALL GOES TO ONE PLACE OR ANOTHER ...

... AND THAT THEY HAVE DIFFERENT ENERGY LEVELS. THEY CAN EITHER BE AT ONE ENERGY OR ANOTHER, BUT NEVER IN BETWEEN. ALSO, THEY CAN SEEMINGLY

MOVE FROM ONE PLACE TO ANOTHER THROUGH WALLS AND IT SEEMS THAT THE CARS I FIX SOMETIMES END UP WITH THESE ABILITIES.

I POSSESS THESE ABILITIES AS WELL. I SOMETIMES CALL MYSELF **THE QUANTUM MECHANIC.**

RIGHT, GOT IT! THE MINIVAN DID ALL THAT. IT ALMOST KILLED US AND ITS PROBABLY APPEARING RANDOMLY AROUND THE WORLD GOING EXACTLY 65 MPH. SHORT ANSWER, ITS NOT IN THE GARAGE AND ITS DANGEROUS. NOW LET'S MOVE ON TO HOW TO STOP IT.

THAT IS A BIT MORE COMPLICATED.

LASERS CAN SLOW THEM DOWN AND TRAP THEM. PERHAPS YOUR LASER POWERS CAN SAVE YOUR MOTHER'S VAN?

YES, BUT I WOULD LIKE TO BE ABLE TO GO TO SCHOOL TOMORROW AND NOT BE STUCK KEEPING THE MINIVAN IN CHECK.

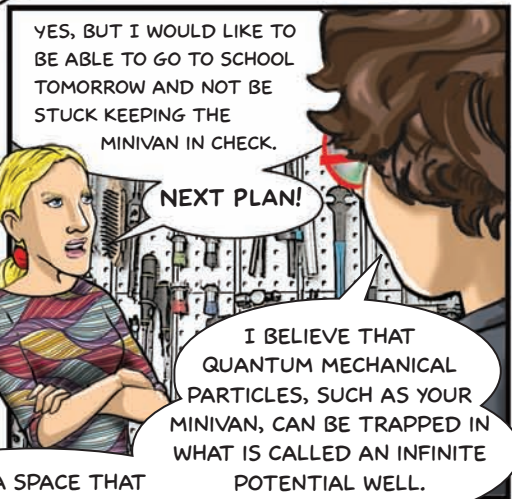
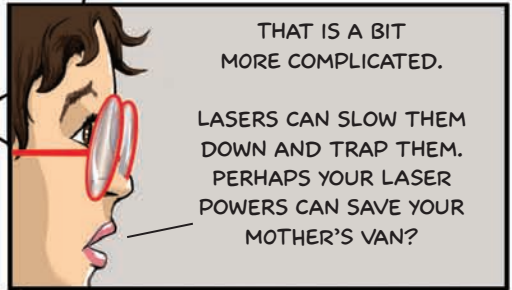
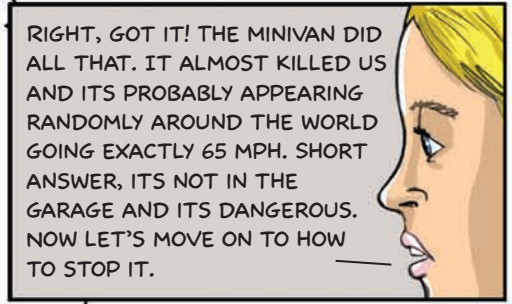
NEXT PLAN!

I BELIEVE THAT QUANTUM MECHANICAL PARTICLES, SUCH AS YOUR MINIVAN, CAN BE TRAPPED IN WHAT IS CALLED AN INFINITE POTENTIAL WELL.

THIS IS A SPACE THAT HAS SO MUCH ENERGY ON EITHER SIDE THAT THE PARTICLE CAN'T LEAVE THROUGH THE WALL.

GREAT, A POTENTIAL WELL! I CAN DO THAT. MS. BLACK, HOW MUCH CONTROL DO YOU HAVE OVER YOUR QUANTUM MECHANICAL POWERS?

I HAVE SOME CONTROL AND I'M QUITE GOOD AT BEING IN TWO PLACES AT ONCE.



Back at the Hene house, Lucy and Ruby search for the keys to the minivan.



GOT THEM; HERE ARE THE KEYS!

Strange report from East Canton, Ohio. A ghost of a minivan appeared in the middle of a crowded shopping mall; shoppers baffled."



WOW! AT LEAST WE KNOW WHERE THE VAN IS LOCATED, HALF IN THE GARAGE, HALF IN OHIO.



GIRLS, WHAT EXACTLY ARE YOU TWO DOING AND WHY DO YOU HAVE MY MINIVAN KEYS?

MOM, I'M SO SORRY. BUT I LOST THE MINIVAN.

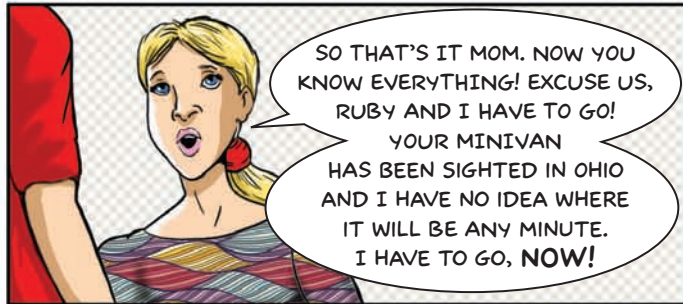


LUCY, YOU CAN'T EVEN DRIVE. WHAT ON EARTH IS HAPPENING!?!

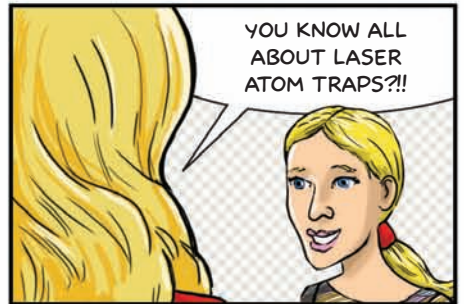
MS. BLACK IS REALLY THE QUANTUM MECHANIC! SHE ACCIDENTALLY GAVE YOUR MINIVAN SOME QUANTUM POWERS.



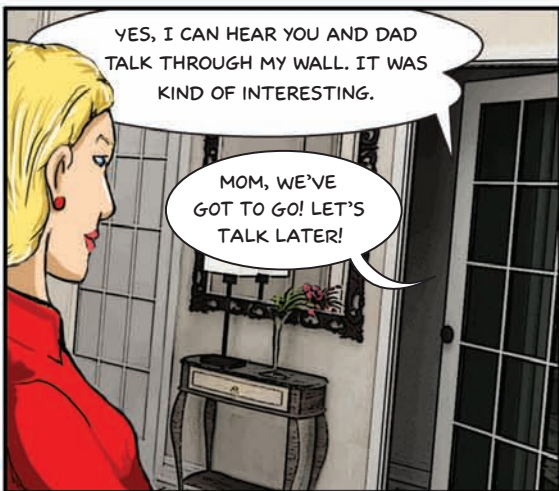
AND BY THE WAY, IT TURNS OUT I HAVE LASER POWERS. SO I'M GOING TO TRY AND CATCH THE MINIVAN IN A TRAP LIKE YOU AND DAD DO WITH YOUR LASERS IN YOUR LAB.



SO THAT'S IT MOM. NOW YOU KNOW EVERYTHING! EXCUSE US, RUBY AND I HAVE TO GO! YOUR MINIVAN HAS BEEN SIGHTED IN OHIO AND I HAVE NO IDEA WHERE IT WILL BE ANY MINUTE. I HAVE TO GO, NOW!



YOU KNOW ALL ABOUT LASER ATOM TRAPS?!!



YES, I CAN HEAR YOU AND DAD TALK THROUGH MY WALL. IT WAS KIND OF INTERESTING.

MOM, WE'VE GOT TO GO! LET'S TALK LATER!

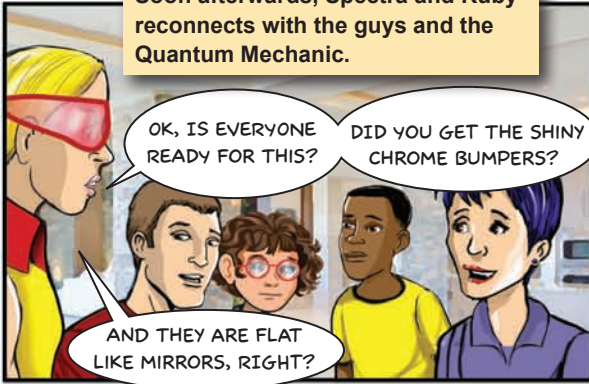


HANG ON RUBY!



DID LUCY SAY SHE HAS LASER POWERS? THAT JUST DOESN'T MAKE ANY SENSE!

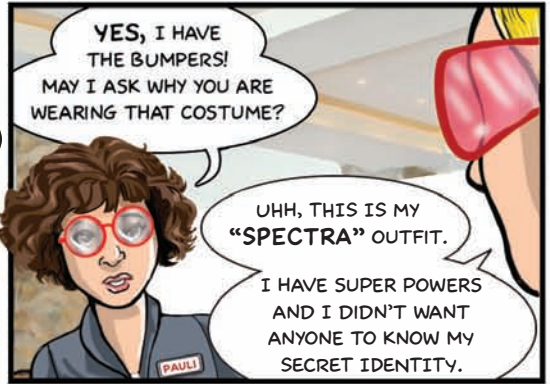
Soon afterwards, Spectra and Ruby reconnects with the guys and the Quantum Mechanic.



OK, IS EVERYONE READY FOR THIS?

DID YOU GET THE SHINY CHROME BUMPERS?

AND THEY ARE FLAT LIKE MIRRORS, RIGHT?



YES, I HAVE THE BUMPERS! MAY I ASK WHY YOU ARE WEARING THAT COSTUME?

UHH, THIS IS MY "SPECTRA" OUTFIT.

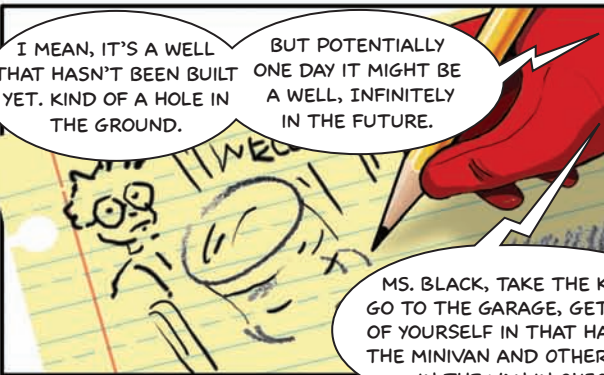
I HAVE SUPER POWERS AND I DIDN'T WANT ANYONE TO KNOW MY SECRET IDENTITY.



HHMMM ... INTERESTING IDEA. ALL I WEAR NOW ARE THESE COVERALLS. YET, THEY DO SUIT ME WELL, BUT POSSIBLY I'M MISSING SOMETHING.

NOW THAT YOU'RE DONE QUESTIONING MY FASHION CHOICES, HERE'S THE PLAN:

THE VAN IS IN EAST CANTON, OHIO OR AT LEAST SOME OF IT IS THERE. THAT AREA HAS A "POTENTIAL WELL" ON THE TOP OF THE HILL SOUTH OF TOWN.



I MEAN, IT'S A WELL THAT HASN'T BEEN BUILT YET. KIND OF A HOLE IN THE GROUND.

BUT POTENTIALLY ONE DAY IT MIGHT BE A WELL, INFINITELY IN THE FUTURE.

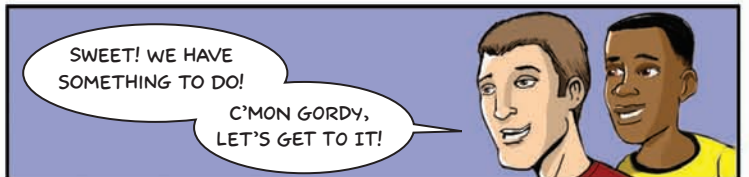
MS. BLACK, TAKE THE KEYS, GO TO THE GARAGE, GET HALF OF YOURSELF IN THAT HALF OF THE MINIVAN AND OTHER HALF IN THE VAN IN OHIO.



RUBY, AFTER MS. BLACK IS IN THE VAN, LOOK AT IT AND HOPE IT ALL ENDS UP ALL IN MY GARAGE.

MS. BLACK, DO YOUR BEST TO HOLD THE MINIVAN TOGETHER AND DRIVE UP TO THE HILL.

GORDY AND KAS, TAKE THESE BUMPERS AND GO UP TO THE HILL. SET THEM UP IN A CIRCLE LIKE STONEHENGE* IN THE U.K.

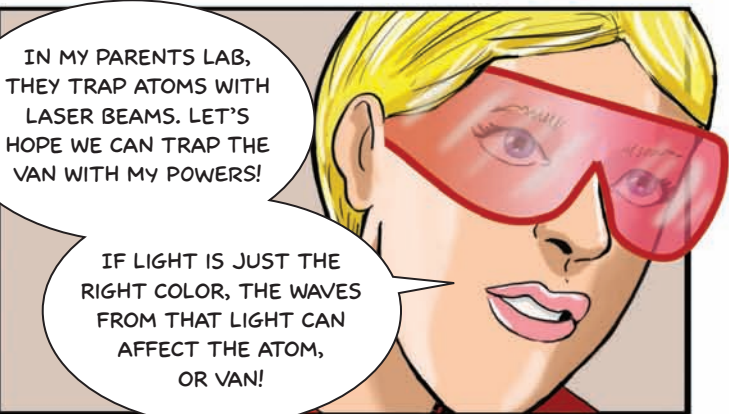


SWEET! WE HAVE SOMETHING TO DO!

C'MON GORDY, LET'S GET TO IT!

IN MY PARENTS LAB, THEY TRAP ATOMS WITH LASER BEAMS. LET'S HOPE WE CAN TRAP THE VAN WITH MY POWERS!

IF LIGHT IS JUST THE RIGHT COLOR, THE WAVES FROM THAT LIGHT CAN AFFECT THE ATOM, OR VAN!



* www.english-heritage.org.uk/daysout/properties/stonehenge/

IF THE ATOM TRIES TO GET AWAY, THE LIGHT WAVES PUSH IT BACK TO THE CENTER. IT GETS TRAPPED. WHEN MS. BLACK DRIVES THE VAN UP THE HILL, I'LL USE THE BUMPERS AS MIRRORS, REFLECT AROUND AND HOPEFULLY TRAP THE MINIVAN THE SAME WAY MY PARENTS TRAP ATOMS.



ONCE I TRAP IT, MS. BLACK, YOU NEED TO GET OUT OF THE VAN, AND THEN ALL FOUR OF YOU NEED TO MOVE THE MIRRORS IN SYNC, WHILE THE VAN I'VE TRAPPED US OVER THE "POTENTIAL WELL".

LUCY, I MEAN "SPECTRA", THIS PLAN SEEMS VERY COMPLICATED

AND I DON'T BELIEVE THAT THIS IS THE RIGHT TYPE OF "POTENTIAL WELL."



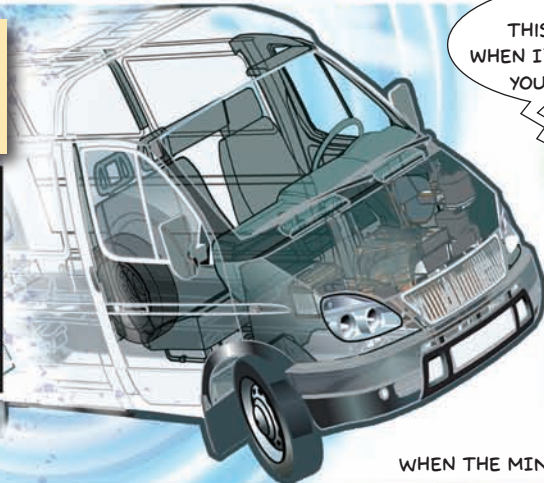
I HAVE NO IDEA IF THIS TYPE OF INFINITELY POTENTIAL WELL WILL WORK, I ONLY HOPE THAT QUANTUM MINIVANS CAN BE TRAPPED BY BAD PUNS! LET'S GO

Everyone works hard to follow Spectra's instructions. After completing the tasks, the friends meet on the hill. They are waiting for the Quantum Mechanic to drive up the hill.

The bumpers are all set up. Spectra is waiting to be a laser and trap her mother's minivan.



GUYS, GET READY, HERE SHE COMES!



LET'S HOPE THIS WORKS! RUBY, WHEN I'M A GREEN LASER, YOU'RE IN CHARGE!



WHEN THE MINIVAN IS TRAPPED, YOU KNOW HOW TO MOVE, RIGHT?

ZA-OOM!!

I HAVE TO CONCENTRATE TO MAINTAIN THE RIGHT HUE OF GREEN TO TRAP THE MINIVAN!

The minivan drives up into the middle of the ring of bumpers.

In her green laser form, Spectra bounces around, off, and on the bumpers, always going through the middle and hitting the minivan.



She traps the van!

The all pick up the bumpers and move them so that the middle of the ring is now right over the hole in the ground that is the "potential well."



WE'RE THERE!
DROP IT!!!

Everyone closely watches as the minivan drops into the site of the "well".



I DON'T BELIEVE THAT THE VAN WILL BE RETURNING!

LET'S HOPE NOT! YOU KNOW YOU CAN'T DO THIS AGAIN, RIGHT? IT'S NOT SAFE!



BUT IF THERE'S EVER AN EPISODE OF THE TV SHOW "GHOST HUNTERS" ABOUT A MINIVAN SCARING PEOPLE, I'M GOING TO BLAME MOM'S MINIVAN.

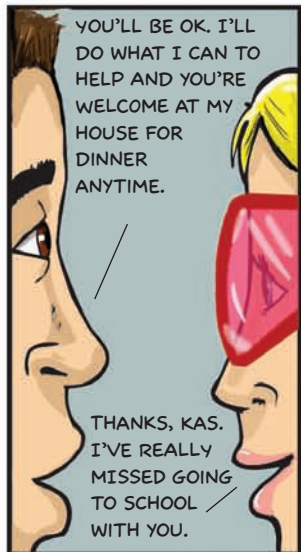
YES, I KNOW! PERHAPS WE COULD WORK TOGETHER TO LEARN HOW TO USE OUR POWERS.

BOTH LASER POWERS AND QUANTUM MECHANICAL POWERS CAN WORK CLOSELY TOGETHER. PERHAPS IN THE FUTURE WE MIGHT "TEAM UP" SO TO SPEAK?

THAT SOUNDS AWESOME! WE CAN FIGURE OUT WHAT THEY HECK WE'RE DOING AND MAYBE EVEN HOW THIS HAPPENED TO US. BUT BEFORE THAT TIME ...

... PLEASE, LET YOUR ASSISTANT REPAIR THE CARS UNTIL YOU FIGURE THIS OUT, OK?

OH NO! I JUST REMEMBERED I LEFT MOM IN THE KITCHEN LOOKING SHOCKED AFTER I TOLD HER I HAD LASER POWERS! AND NOW HER MINIVAN IS IN A HOLE. THIS WILL NOT BE A FUN DINNER CONVERSATION. I GUESS I SHOULD GO BACK AND TRY AND EXPLAIN THIS ALL TO MY PARENTS, IF I CAN.



YOU'LL BE OK. I'LL DO WHAT I CAN TO HELP AND YOU'RE WELCOME AT MY HOUSE FOR DINNER ANYTIME.

THANKS, KAS. I'VE REALLY MISSED GOING TO SCHOOL WITH YOU.



ME TOO, LET'S GO HOME AND DEAL WITH THIS TOGETHER.



THREE CHEERS FOR BAD PUNS AND A PRETTY AWESOME LASER GIRL!

WOOHOO!!!

THE END?

