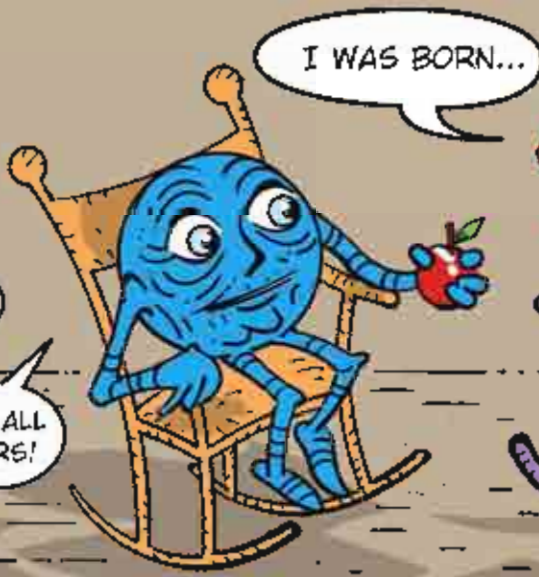


# MEANWHILE AT THE HOME FOR OLD PHOTONS...



I HAVE A STORY TO TELL YOU TODAY!

I'M ALL EARS!



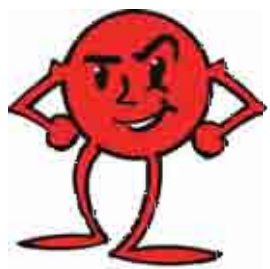
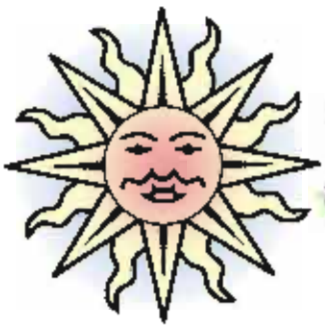
I WAS BORN...



...IN THE CENTER OF THE SUN!

TWO PROTONS WERE GOING SO FAST THAT WHEN THEY COLLIDED, THEY STUCK TOGETHER INSTEAD OF BOUNCING APART.

SOME OF THEIR MASS WAS CONVERTED INTO AN ANTI-ELECTRON WHICH ANNIHILATES WITH AN ELECTRON TO FORM PHOTONS, ONE OF WHICH WAS ME!



A YOUNG GAMMA-RAY PHOTON! WITH ATTITUDE

sun

ALTHOUGH I WAS GOING VERY FAST, IT TOOK ME THOUSANDS OF YEARS TO ESCAPE THE SUN. I BOUNCED AROUND, LOSING ENERGY, UNTIL I BECAME AN X-RAY PHOTON, THEN A RED PHOTON WHEN I FINALLY ESCAPED THE SUN.



ZOOM!

I CRUISED FOR 8 MINUTES THROUGH SPACE DIRECTLY TOWARD A SMALL, ROCKY BALL THAT I LATER LEARNED WAS CALLED EARTH.

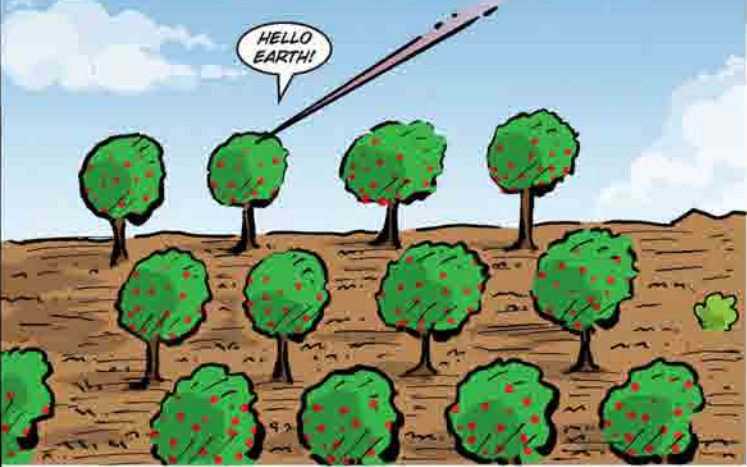
EARTH!

YAHOO!

WOOSH!

I PASSED RIGHT THROUGH THE ATMOSPHERE AND HEADED TOWARD AN APPLE ORCHARD.

HELLO EARTH!

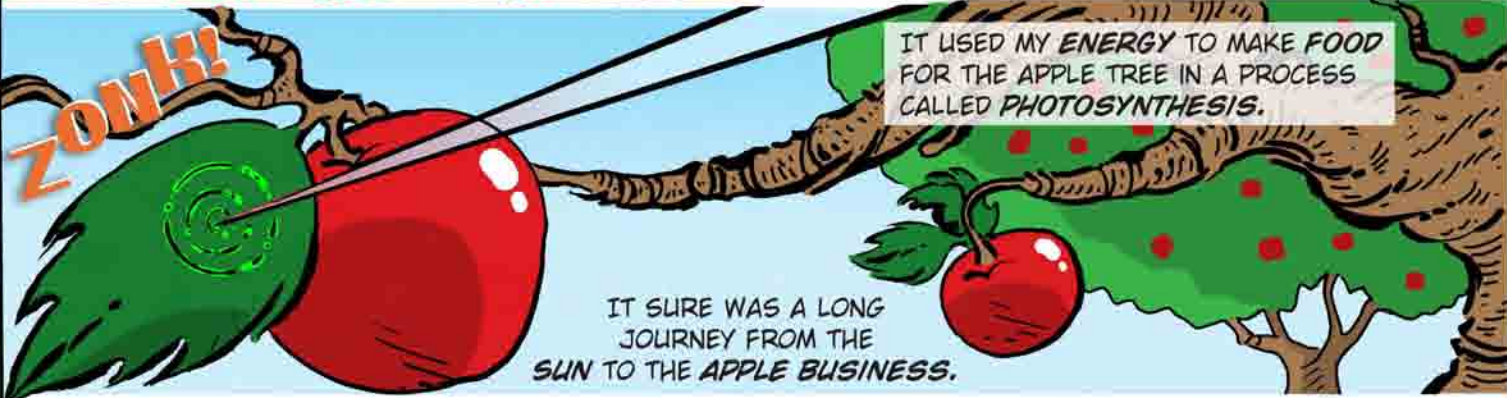


YIPES!



I THOUGHT I WAS A GONER WHEN I HIT A GREEN LEAF!

SURPRISINGLY, THE LEAF ABSORBED ME INSTEAD OF REFLECTING ME LIKE IT DID ALL THE GREEN PHOTONS.

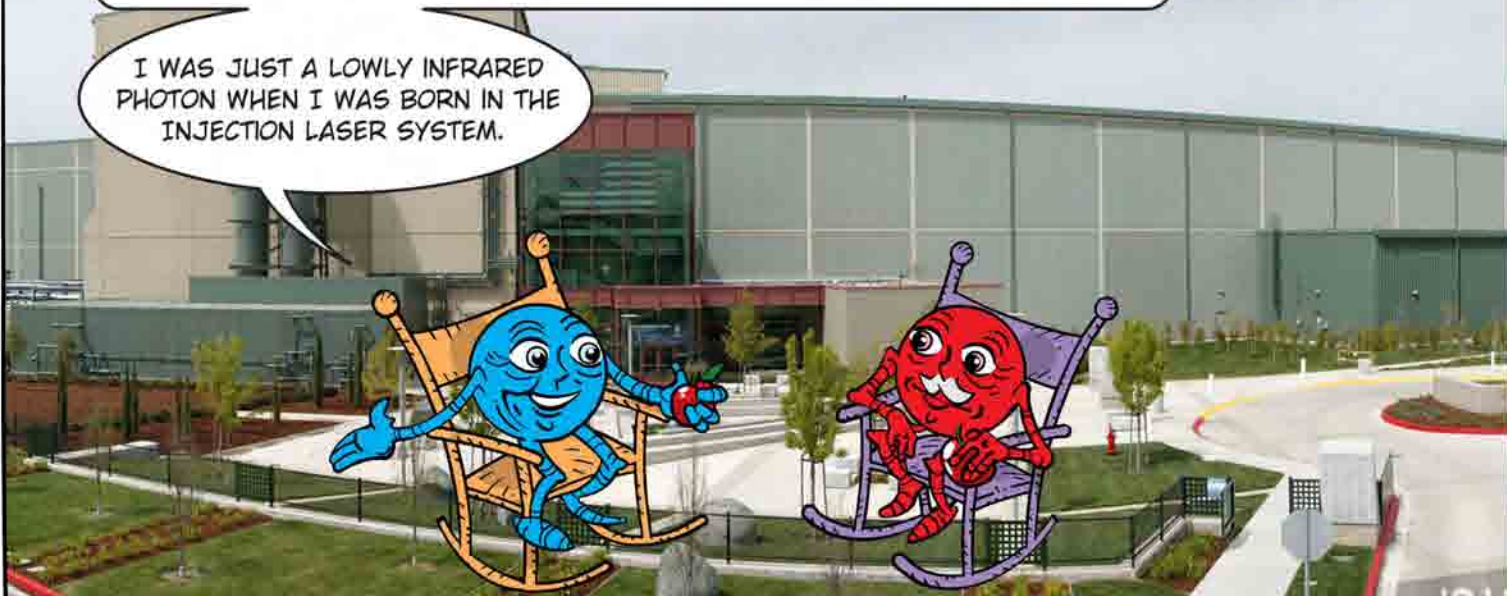


IT USED MY ENERGY TO MAKE FOOD FOR THE APPLE TREE IN A PROCESS CALLED PHOTOSYNTHESIS.

IT SURE WAS A LONG JOURNEY FROM THE SUN TO THE APPLE BUSINESS.

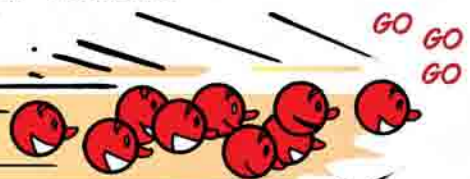
SO YOU STARTED OUT AS A GAMMA-RAY PHOTON AND ENDED UP A RED PHOTON. THAT'S NOTHING, I HAD TO GAIN ENERGY AFTER I WAS BORN AT THE NATIONAL IGNITION FACILITY IN LIVERMORE CALIFORNIA".

I WAS JUST A LOWLY INFRARED PHOTON WHEN I WAS BORN IN THE INJECTION LASER SYSTEM.



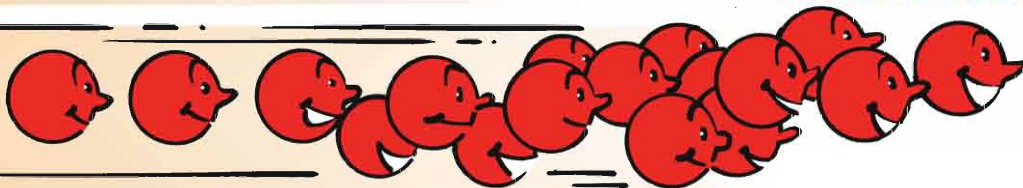
I DID HAVE LOTS OF FRIENDS WITH ME AS WE MADE OUR WAY THROUGH THE NIF BEAMLINE. WE WENT BACK AND FORTH THROUGH THE MAIN AMPLIFIER, ALL OF US STAYING AS INFRARED PHOTONS.

ZOOOUM!

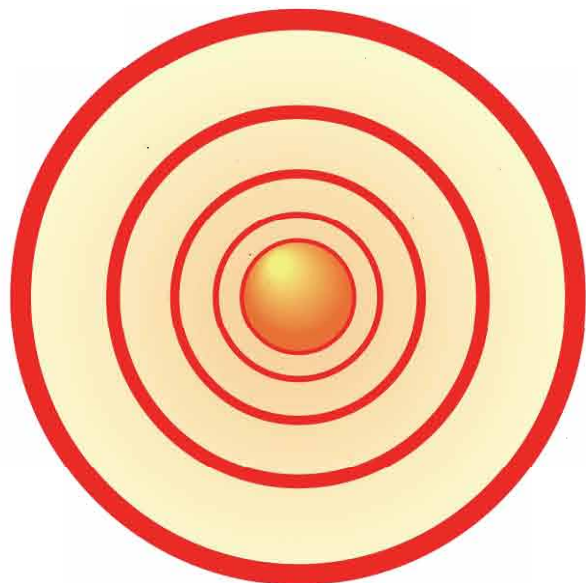
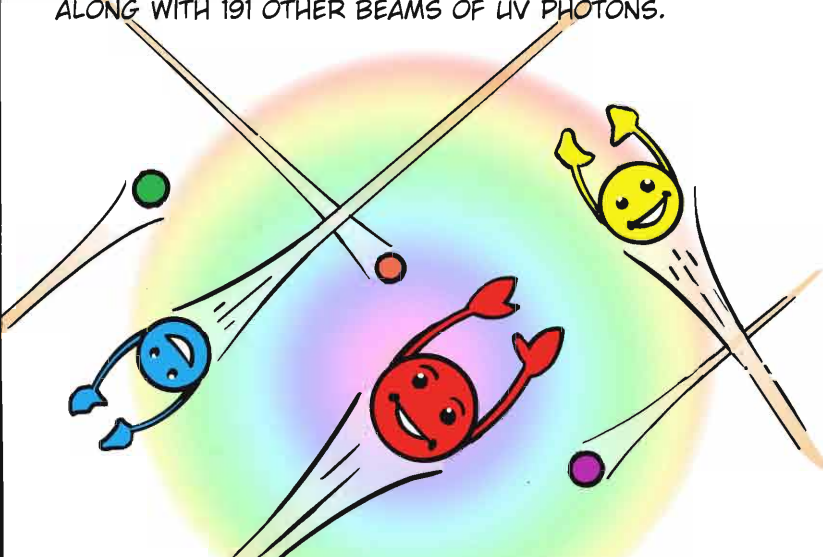


BUT EVERY TIME WE PASSED THROUGH THE AMPLIFIER, WE GAINED **MORE AND MORE** PHOTONS, ALL WITH THE EXACT SAME INFRARED WAVELENGTH. AFTER THERE WERE ENOUGH OF US, THEY SENT US TOWARD THE TARGET CHAMBER. WE ALL PASSED THROUGH THE FREQUENCY CONVERTER, GAINING ENERGY UNTIL WE WERE GREEN PHOTONS, THEN **ULTRA-VIOLET (UV) PHOTONS**.

**YAHOOOOOOOOOOOO!**



FINALLY WE STRUCK A SMALL CAPSULE CALLED A HOHLRAUM (GERMAN FOR EMPTY ROOM) ALONG WITH 191 OTHER BEAMS OF UV PHOTONS.



WE BECAME **X-RAY PHOTONS**, SO THE INSIDE WALLS OF THE HOHLRAUM GOT HOT AND THEN HIT THE **DEUTERIUM TRITIUM TARGET**.

FOR A SHORT TIME THE TARGET WAS HOTTER THAN THE CENTER OF THE **SUN** WHERE YOU CAME FROM.

THE **ENERGY RELEASED** CAN BE USED TO RUN OUR **TELEVISION AND REFRIGERATOR** HERE AT THE OLD PHOLK'S HOME.

HAVE ANOTHER APPLE!

HIGH FIVE!



I LOVE A GOOD **PHOTON STORY!**

