WELCOME TO LIFE

A GUIDE FOR NEW MEMBERS OF THE HUMAN RACE

by ryan somma
SO HERE YOU ARE, LIVING ON A PLANET WE CALL...

EVERYTHING AROUND YOU ALL THE WAY UP TO THE TOP OF THE CLOUDS IS PART OF EARTH.
THAT BIG BRIGHT HOT BALL IN THE SKY DURING THE DAY IS THE SUN.

OUR EARTH GOES AROUND THE SUN.

EVERY TIME YOU HAVE A BIRTHDAY, THE EARTH HAS GONE ALL THE WAY AROUND THE SUN SINCE YOUR LAST BIRTHDAY!

THE SUN IS A STAR. SO ARE THE OTHER TWINKLING DOTS OF LIGHT IN THE SKY AT NIGHT.
THE BIG GLOWING CIRCLE IN THE SKY AT NIGHT? THAT IS THE MOON.

THE MOON IS LIKE A PLANET, BUT IT GOES AROUND THE EARTH. THE SUN SHINES ON IT TO MAKE IT BRIGHT.

SOME OF US HAVE WALKED ON THE MOON!
SOME OF THE BRIGHT SPOTS IN THE NIGHT SKY ARE PLANETS TOO. THEY DON’T TWINKLE, BUT THEY DO GO AROUND THE SUN.

THE SUN AND OTHER STARS GO AROUND THE MILKY WAY. THE MILKY WAY IS A GALAXY.

GALAXIES HAVE HUNDREDS OF BILLIONS OF STARS IN THEM.
THE SKY IS FILLED WITH GALAXIES. THERE ARE OVER 10,000 GALAXIES ON THIS PAGE AND IT WOULD TAKE 23,700,000 PAGES TO COVER THE NIGHT SKY. ALL OF THESE GALAXIES FILLED WITH STARS CIRCLED BY PLANETS CIRCLED BY MOONS ARE PART OF THE...

UNIVERSE

THE UNIVERSE IS EVERYTHING THERE IS.
SO HOW DID YOU GET HERE?

ON A PLANET...

GOING AROUND A STAR...

GOING AROUND A GALAXY...

...IN A UNIVERSE FULL OF GALAXIES?
YOU CAME FROM INSIDE YOUR MOMMY.
YOUR MOMMY CAME FROM INSIDE YOUR GRANDMOMMY.
YOUR GRANDMOMMY CAME FROM INSIDE YOUR GREAT GRANDMOMMY.
ON AND ON, BACK THROUGH TIME...

...GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT GREAT G... 
OVER 100,000 GREAT-GRANDMOMMIES AGO 
TO A MOMMY WHO LOOKED SOMETHING LIKE THIS:

100 BA*  
200 BA  
1700 BA  
2200 BA  
3300 BA  
25,000 BA

3,000,000 BA

*BA = “Birthdays Ago”
BUT IT DOESN’T STOP THERE!
SHE CAME FROM INSIDE HER MOMMY,
WHO CAME FROM INSIDE HER GRANDMOMMY,
WHO CAME FROM INSIDE HER GREAT-GRANDMOMMY…

One mommy looked like this…  ...another mommy like this…  ...and another like this

20,000,000 BA  60,000,000 BA  210,000,000 BA

On and on…  ...back through time…  ...changing and changing

295,000,000 BA  375,000,000 BA  480,000,000 BA
A SINGLE CELL
3,500,000,000 BA

GETTING MORE AND MORE SIMPLE OVER HUNDREDS OF MILLIONS OF YEARS

ALL THE WAY BACK TO THIS
FOR 2,000,000,000 BIRTHDAYS ON EARTH, ALL LIVING THINGS WERE SINGLE CELLS.

THEN SOME CELLS STARTED WORKING TOGETHER. THIS MADE THEM STRONGER THAN THE SINGLE CELLS, SO THEY MULTIPLIED.
DIFFERENT THINGS WORKED FOR DIFFERENT KINDS OF LIFE.

SOME TEAMS OF CELLS FORMED PLANTS THAT EAT SUNLIGHT

OTHERS FORMED ANIMALS, THAT EAT PLANTS.
ANIMALS AND PLANTS KEPT ON CHANGING, TRYING OUT DIFFERENT THINGS.

SOME ANIMALS, LIKE CRABS, WORE THEIR SKELETONS ON THE OUTSIDE.

OTHER ANIMALS, LIKE FISH, WORE THEIR SKELETONS ON THE INSIDE.

DIFFERENT THINGS WORKED FOR DIFFERENT KINDS OF LIFE.
ALL OF THIS WAS HAPPENING IN THE EARTH’S OCEANS, WHICH WERE GETTING PRETTY CROWDED...

SO SOME PLANTS AND ANIMALS GREW TO LIVE ON THE LAND.
CRABS AND OTHER ANIMALS WITH OUTSIDE SKELETONS BECAME BUGS AND INSECTS.

FISH AND OTHER ANIMALS WITH INSIDE SKELETONS BECAME AMPHIBIANS AND REPTILES
SOME LIZARDS BECAME DINOSAURS AND BIRDS AND TINY MAMMALS.

SOME TINY MAMMALS BECAME ELEPHANTS, DOGS, CATS, WHALES, AND MONKEYS.

SOME MONKEYS EVENTUALLY BECAME HOMO SAPIENS!
THIS WAS YOU YOUR NUMBER OF BIRTHDAYS AGO (PLUS NINE MONTHS INSIDE YOUR MOMMY.)

A FEW HOURS LATER YOU GREW UP TO BE THIS

YOU HAD GILLS LIKE A FISH ONCE TOO!

AND EYES ON THE SIDE OF YOUR HEAD LIKE A MOUSE!

YOU GREW

AND GREW

AND GREW

AND GREW

AND GREW

AND GREW
YOU ARE HOMO SAPIENS!

LOTS OF TEAMS OF CELLS!

BIG BRAIN!

OPPOSABLE THUMBS!

WARM BLOODED!

SKELETON ON THE INSIDE!

WALKS ON TWO FEET!
THERE ARE OVER 7,000,000,000 HOMO SAPIENS ON PLANET EARTH

(PLUS A FEW OUT IN SPACE)

AND ANOTHER FOUR ARE BORN EVERY SECOND!
EVERY HOMO SAPIENS IS UNIQUE.
BUT WE ARE ALL PART OF A TEAM CALLED

CIVILIZATION

NEW YORK

DUBAI

RIO DE JANERO

HONG KONG
OUR CIVILIZATION ISN’T PERFECT
BUT WE ARE ALWAYS WORKING TO MAKE IT BETTER
AS YOUR GUARDIAN
MY PURPOSE IS TO HELP YOU GROW UP
TO BE AS GOOD AS ME AT LIFE AND CONTRIBUTING TO CIVILIZATION.

YOUR PURPOSE IS TO GROW UP TO BE
EVEN BETTER THAN ME!
HOPEFULLY THIS BOOK HAS FILLED YOU WITH QUESTIONS.
HERE’S SOME OF MY FAVORITE QUESTIONS:

• WHERE DID THE DINOSAURS GO? (HINT: LOOK UP IN THE SKY AND TREES)
• WHY DOESN’T THE MOON ALWAYS LOOK ROUND?
• CAN YOU FIND YOUR HOUSE ON GOOGLE EARTH?
• IS THERE LIFE ON OTHER PLANETS? (HINT: SETI, EXOPLANETS)
• DOES THE EARTH HAVE A BIRTHDAY? (HINT: EQUINOXES, SOLSTICES)
• WHAT DOES IT MEAN THAT FOUR HOMO SAPIENS ARE BORN EVERY SECOND? (TRY COUNTING IN MULTIPLES OF FOUR)
• CAN YOU FIND THE PLANETS ON GOOGLE SKY?
• CAN YOU FIND AND NAME THE ANIMALS AND PLANTS IN THIS BOOK?
• EVERYTHING ON EARTH IS POWERED BY THE SUN, EVEN YOU. CAN YOU FIGURE OUT HOW YOU ARE POWERED BY THE SUN? CAN YOU FIGURE OUT HOW A CAR, LIGHT BULB, OR RIVER RUNS ON THE SUN?
• WHAT MAKES IT COLD IN THE WINTER AND WARM IN THE SUMMER?
• ANIMALS AND PLANTS CHANGING OVER BILLIONS OF YEARS IS CALLED "EVOLUTION," IS LIFE STILL EVOLVING TODAY? ARE PEOPLE EVOLVING STILL?
• WHERE DID THE FIRST CELL COME FROM?
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