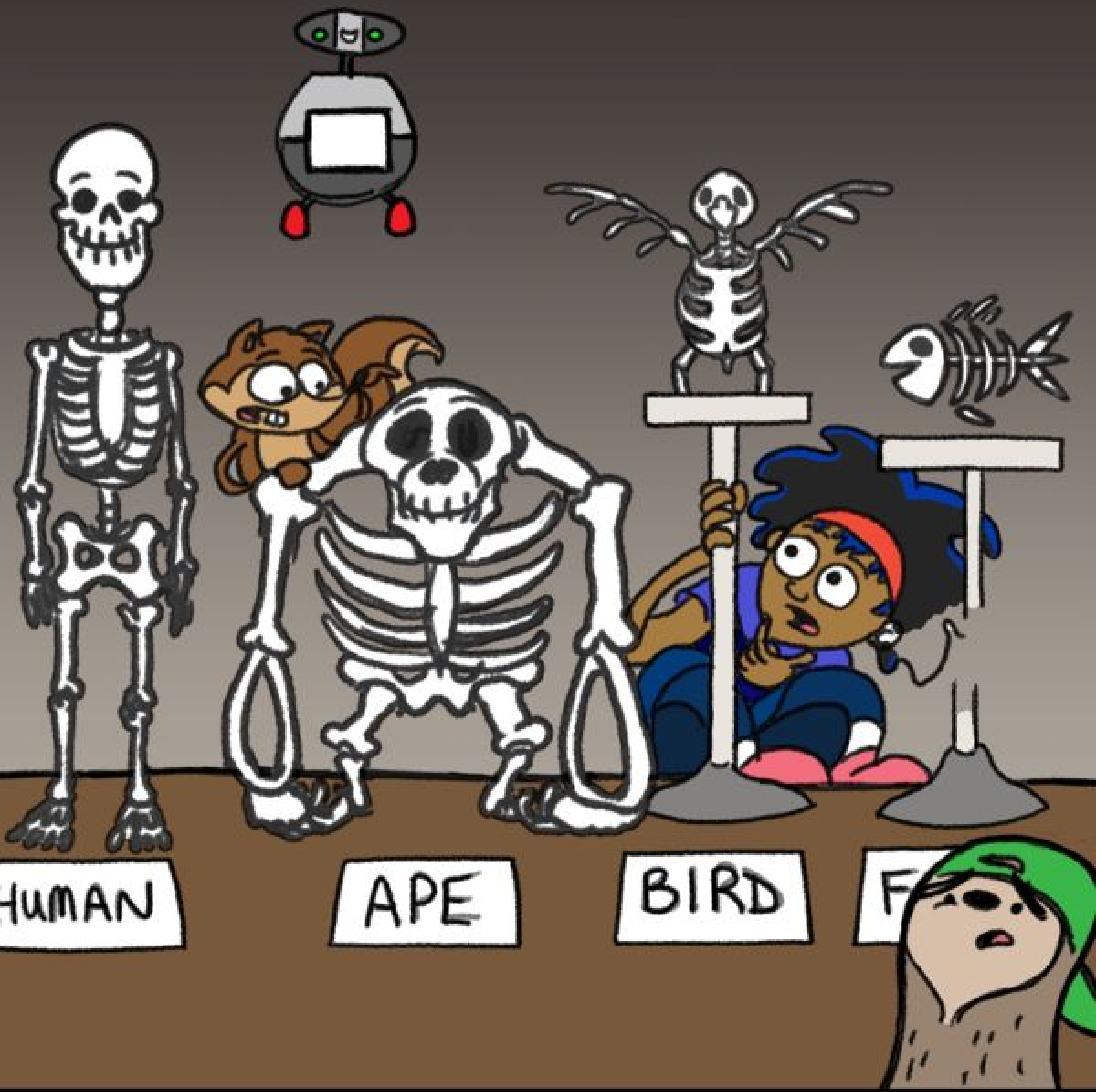


MOSA MACK

AND THE CASE OF THE WORLD'S MOST SHOCKING FAMILY



NEWS HEADLINE

FORMER "QUEEN OF POP" DEAD AT 70

I BEING OF SOUND MIND AND BODY, GIVE MY WHOLE FORTUNE TO YOU.

P-JON, PONGO AND LI'L SWIMMY: THE ONLY FAMILY I EVER KNEW!

NO WAY!!

PONGO

LI'L SWIMMY

P-JON

I'M HER ONLY FAMILY - ME, PONGO! AND I'M NOT SHARING ANYTHING WITH THOSE PETS!

LOOK. ALL I REALLY WANT IS EVIE'S RUBY TIARA FROM THE COMEBACK TOUR.

STAND UP FOR YOUR FAIR SHARE, FISH! WE'RE HER FAMILY JUST AS MUCH AS THIS OVERGROWN CHIMP!

WHO ARE YOU CALLING CHIMP, YOU SKY-RAT?!

ENOUGH!!!

I PREDICTED YOU GUYS WOULD FIGHT.
NOW LISTEN UP: ALL CREATURES -
YOU, ME, EVERY SPECIES - ARE FAMILY.

... BECAUSE WE ALL COME FROM
THE SAME ANCESTOR, NO MATTER
HOW MUCH WE HAVE CHANGED
OVER TIME!

WOW. POOR EVIE
REALLY LOST IT
AT THE END.

IN MY LEGAL OPINION,
NONE OF YOU ANIMALS ARE RELATED
TO EVIE OR TO EACH OTHER.
WHICH MEANS THE WHOLE WILL
IS INVALID.

SAY
WHAAAT?

THEN
WHO GETS
MY FORTUNE?!

OUR FORTUNE,
CHIMP!

WHY... ME, OF COURSE -
HER TRUSTED LAWYER.
AT LEAST I'M HUMAN!

AHEM!

I KNEW YOU'D PULL THAT TRICK, TED.
WHICH IS WHY, BEFORE MY DEATH.

I INVITED MOSA MACK SCIENCE DETECTIVE, TO PROVE MY CASE.

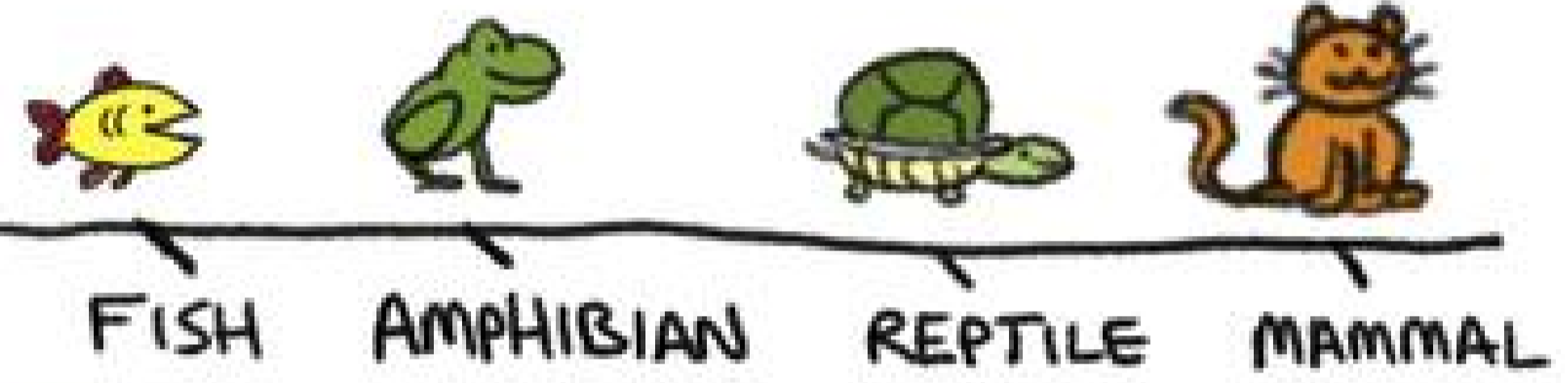
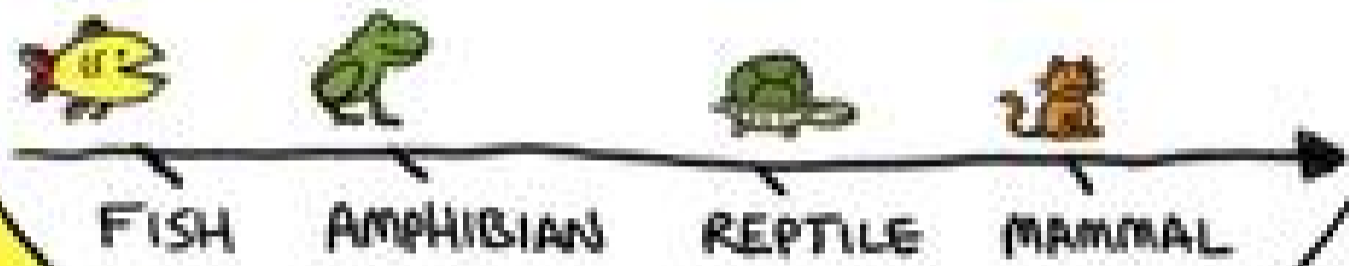
EVIE-LOO! THINK SHE'LL GIVE ME AN AUTOGRAPH?

DOUBTFUL.

"DON'T LET TED FOOL YOU, MOSA. ALL LIFE FORMS EVOLVED FROM A COMMON ANCESTOR. AND OVER TIME, NEW MUTATIONS CAUSED NEW TRAITS. THESE TRAITS WERE BENEFICIAL IN SOME ENVIRONMENTS AND HARMFUL IN OTHERS!"



"SO FROM THIS COMMON ANCESTOR, NEW SPECIES CAME ABOUT. IT'S CALLED EVOLUTION"



"IF YOU LOOK CLOSELY, YOU'LL FIND SIMILARITIES BETWEEN DIFFERENT SPECIES, AND THAT EVIDENCE SUGGESTS THAT WE'RE ALL RELATED. CHECK OUT THESE THREE THINGS:"

EMBRYOS, FOSSILS, AND ANATOMY...

Dear Mosa,

"... ALL OF WHICH YOU'LL FIND IN MY NATURAL HISTORY WING."

EW, I NEVER GO IN THAT WING - WAY TOO CREEPY.

BIG WORD OVERLOAD! CAN WE TAKE THOSE ONE AT A TIME?

YOU LIVE IN A BOWL. YOU GO WHERE PEOPLE TAKE YOU.



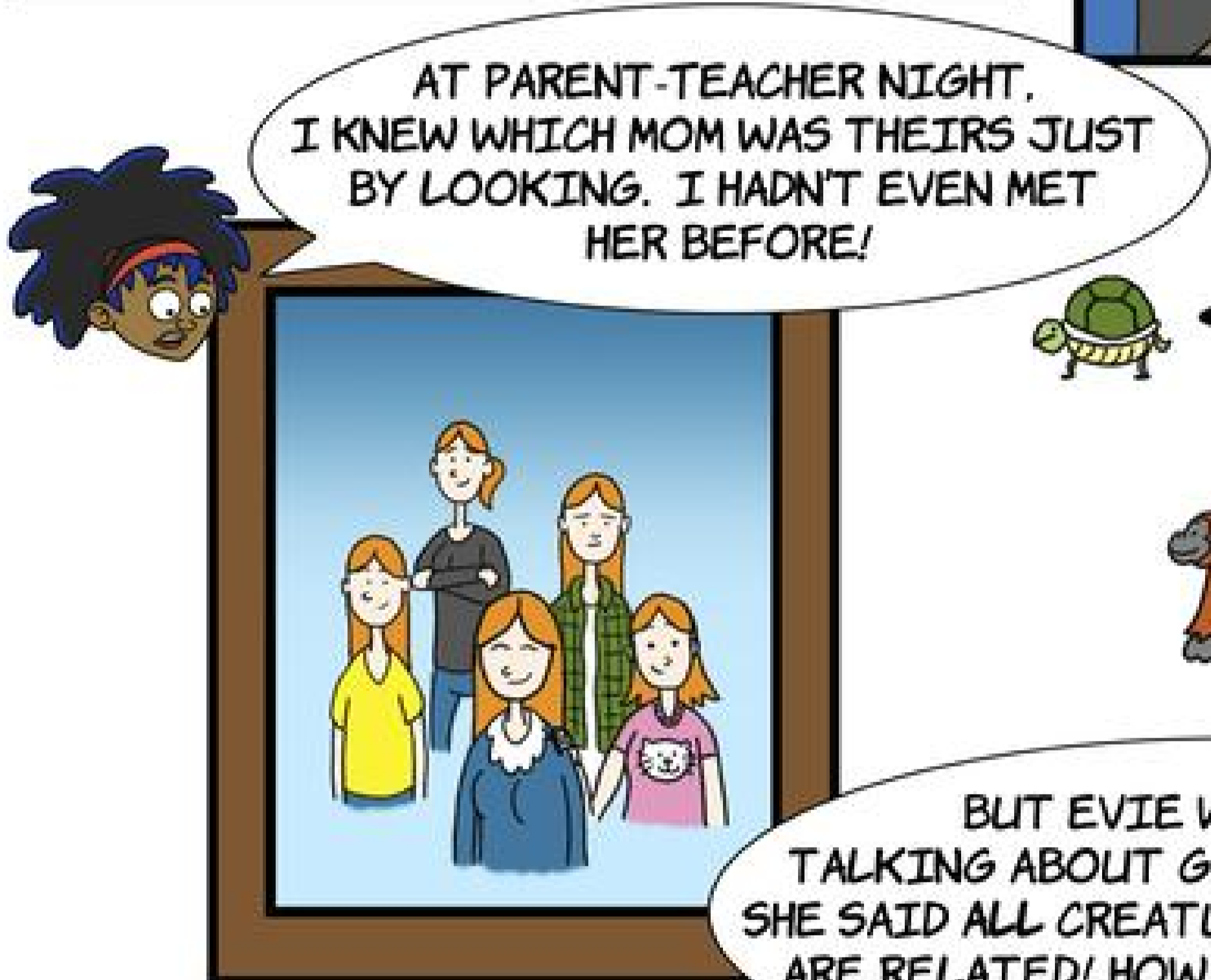


NOTHING TO SEE OVER THERE - ALL JUST DUSTY OLD CHARTS AND BONES.

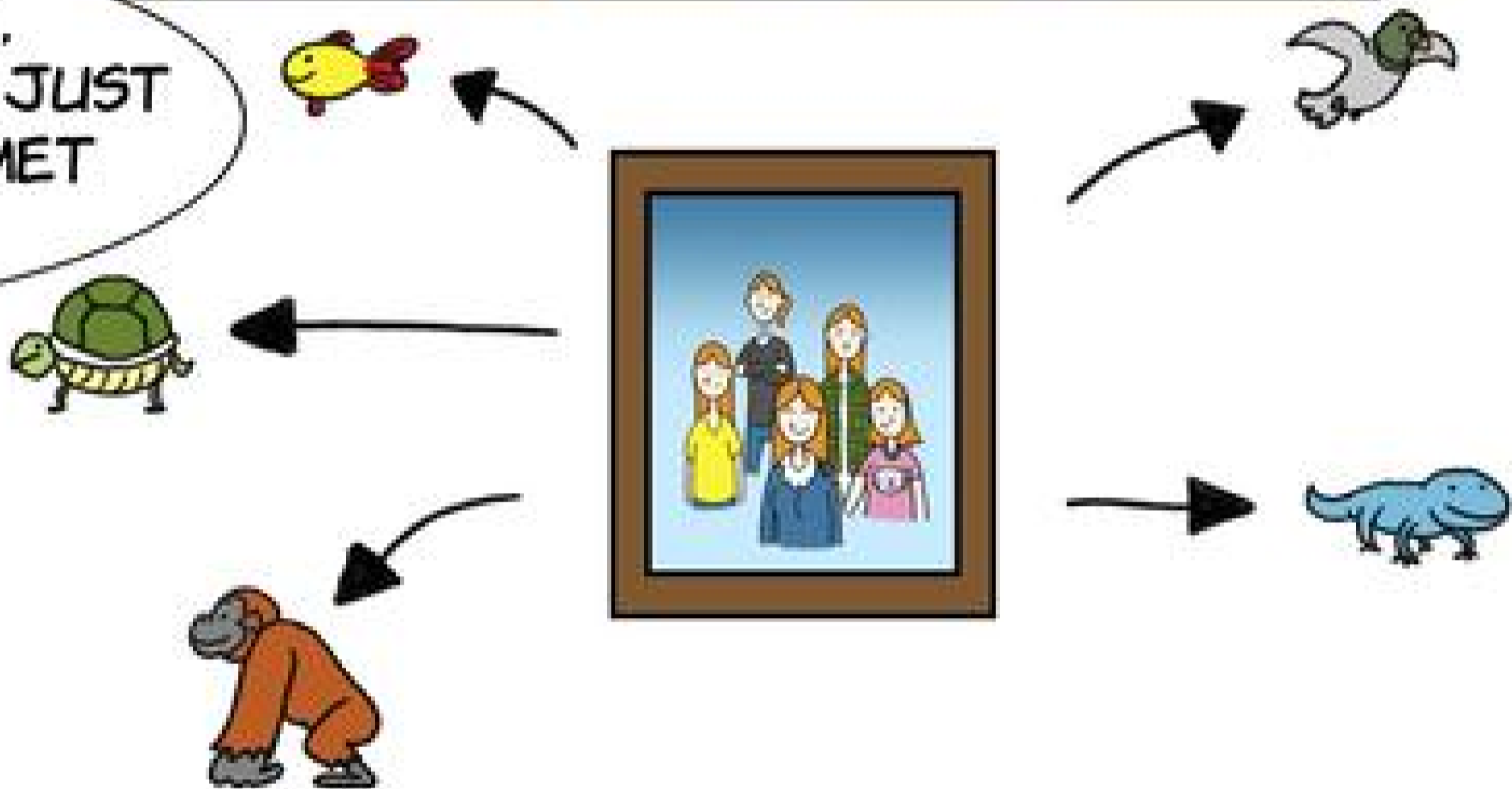
IT SOUNDS LIKE YOU'RE TRYING TO STOP US.



IF SIMILARITIES SUGGEST YOU'RE RELATED, MY FRIEND GINA IS THE PERFECT EXAMPLE. HER SISTERS ARE YOUNGER, BUT THEIR FEATURES ARE SO MUCH ALIKE, YOU CAN TELL THEY'RE RELATED. SAME GREEN EYES AND RED HAIR.



AT PARENT-TEACHER NIGHT, I KNEW WHICH MOM WAS THEIRS JUST BY LOOKING. I HADN'T EVEN MET HER BEFORE!



BUT EVIE WASN'T JUST TALKING ABOUT GINA AND HER FAMILY. SHE SAID ALL CREATURES AND ALL SPECIES ARE RELATED! HOW IS THAT POSSIBLE?



HOW CAN HUMANS BE RELATED TO FISH?

HOW CAN APES BE RELATED TO BIRDS?! THEY DON'T LOOK ANYTHING ALIKE!

GASP! ARE YOU SAYING... THE QUEEN OF POP IS WRONG?!

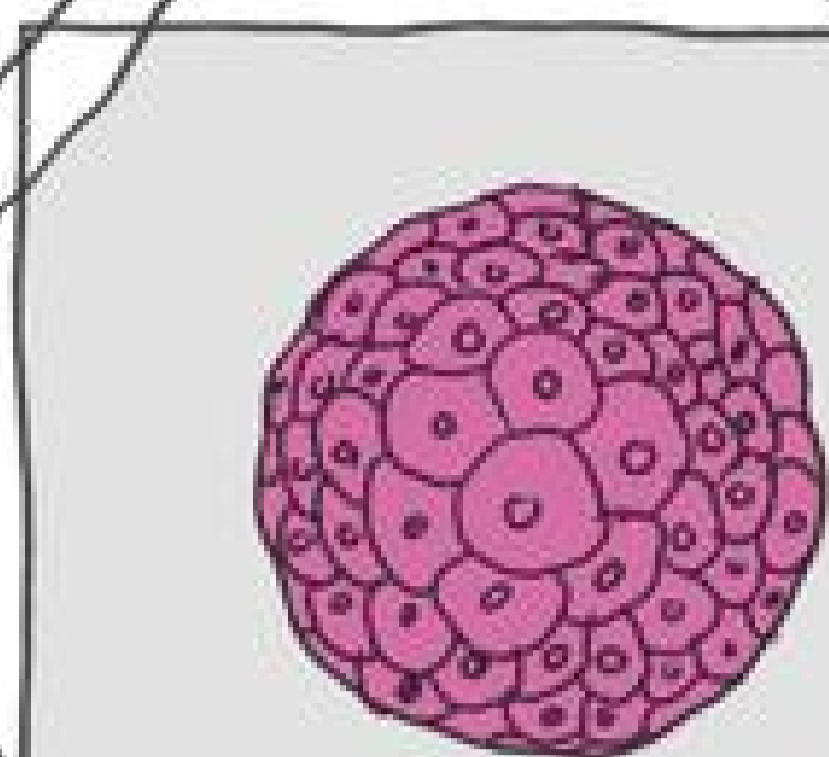
GUYS, EVIE SAID THERE WAS EVIDENCE... SO MAYBE WE SHOULD INVESTIGATE.



CHECK IT OUT: BABY PICTURES OF THE APE, THE FISH, THE BIRD AND EVIE!

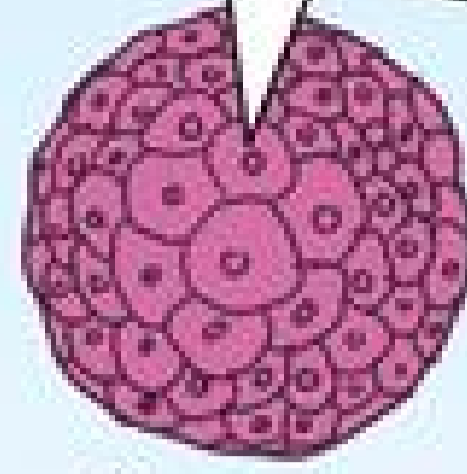
BABY PICTURES I UNDERSTAND... BUT --

THOSE DON'T LOOK LIKE BABIES TO ME!

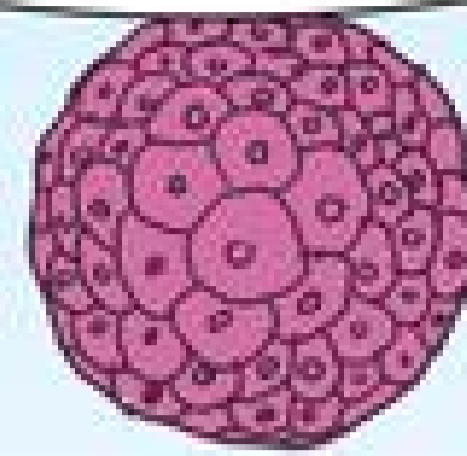


Gorilla Embryo

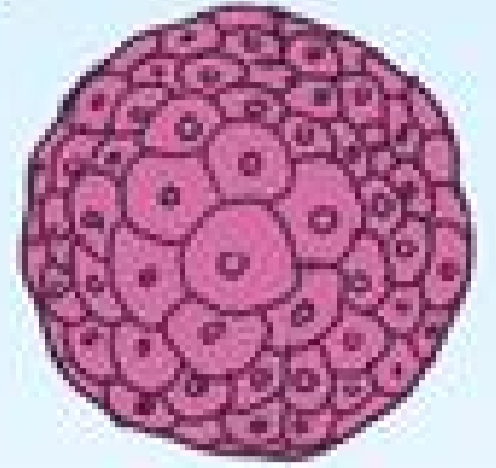
AT FIRST, THEY ALL LOOK LIKE ROUNDISH BLOBS NO MATTER THE SPECIES.



Gorilla



Fish



Bird

BEFORE A BABY IS BORN, I THINK IT STARTS OUT AS AN EMBRYO.

SO THESE ARE... EMBRYO PICTURES?

LOTS OF THINGS ARE ROUNDISH BLOBS -- THAT DOESN'T MEAN THEY'RE RELATED.

AS ALL OF THE EMBRYOS GROW, THEIR BODIES ARE FORMING INTO SECTIONS.

Fish Bird Gorilla



AND THEY'RE ALL GROWING -- LIMBS?



Fish



Bird

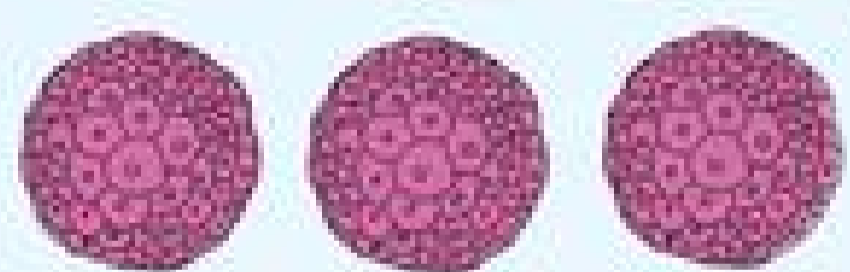


Gorilla

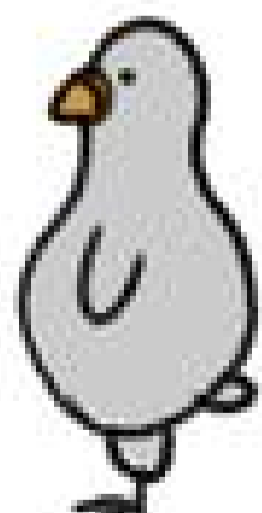
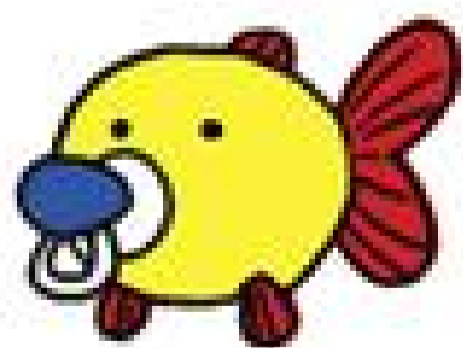
ON THE FISH, LIMBS TURN INTO FINS. AND ON THE BIRD, THEY TURN INTO WINGS!

BIRDS DON'T HAVE LIMBS! NEITHER DO FISH!

Fish Bird Gorilla



AWWWW.



BY THE TIME THEY'RE BORN, YOU CAN TELL THEY'RE DIFFERENT SPECIES, BUT...

WHEN YOU LOOK AT THE DIFFERENT SPECIES WHEN THEY ARE EMBRYOS, YOU CAN SEE TRAITS THAT LOOK KIND OF SIMILAR. LIKE THOSE LIMBS.

AND EVIE SAID: WHEN YOU HAVE SIMILAR TRAITS, THAT'S A CLUE THAT YOU'RE RELATED!

MAYBE A CLUE, BUT NOT PROOF TED. HERE, I'VE BEEN WATCHING ON THE SECURITY CAM.

HE'S RIGHT, MOSA. MY GREAT-GRANDPARENTS AREN'T HUMANS, THEY'RE SLOTHS, JUST LIKE ME. SO IS EVERYBODY IN MY FAMILY, GOING BACK AS FAR AS WE CAN REMEMBER.

AND AS FAR AS I'M CONCERNED: ALL SPECIES ARE NOT RELATED AND EVIE'S FORTUNE STILL BELONGS TO ME!

WHHHHAAAAAAA?!!!

FOSSIL HALL

MAYBE WE NEED TO GO BACK... EVEN FURTHER EVIE SAID WE'D FIND MORE EVIDENCE..

BY LOOKING AT FOSSILS.

LOOKS LIKE A BIG HEAP OF ROCKS. WHAT CAN WE LEARN FROM THAT?

IF YOU LOOK INSIDE THE ROCKS, YOU CAN LEARN A LOT.

I'M EVIE-LOO'S ROBOTIC FOSSIL EXPERT SHE PROGRAMMED ME TO SORT HER COLLECTION, BUT SHE DIED BEFORE SHE MADE MY ARMS.

WHICH EXPLAINS THE MESS.

SO A FOSSIL IS AN OLD ANIMAL?

ACTUALLY, NO. FOSSILS ARE THE REMAINS OR TRACES OF ANCIENT LIFE FORMS.

AFTER A CREATURE DIES, SOMETIMES ITS BODY IS COVERED UP AND PRESERVED BY LAYERS OF ROCK AND EARTH. EVIE DUG THESE FOSSILS UP ALL OVER THE WORLD.

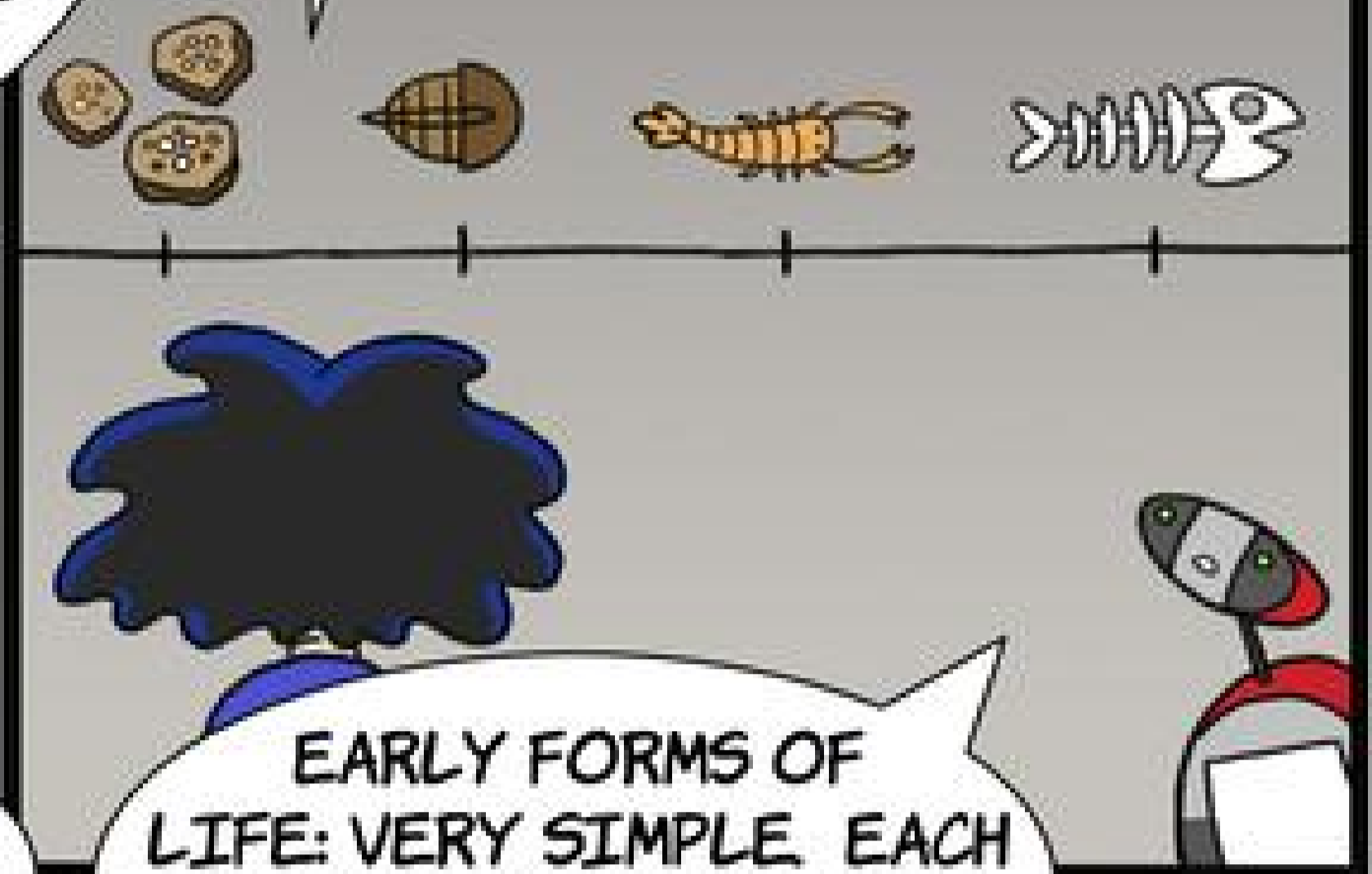
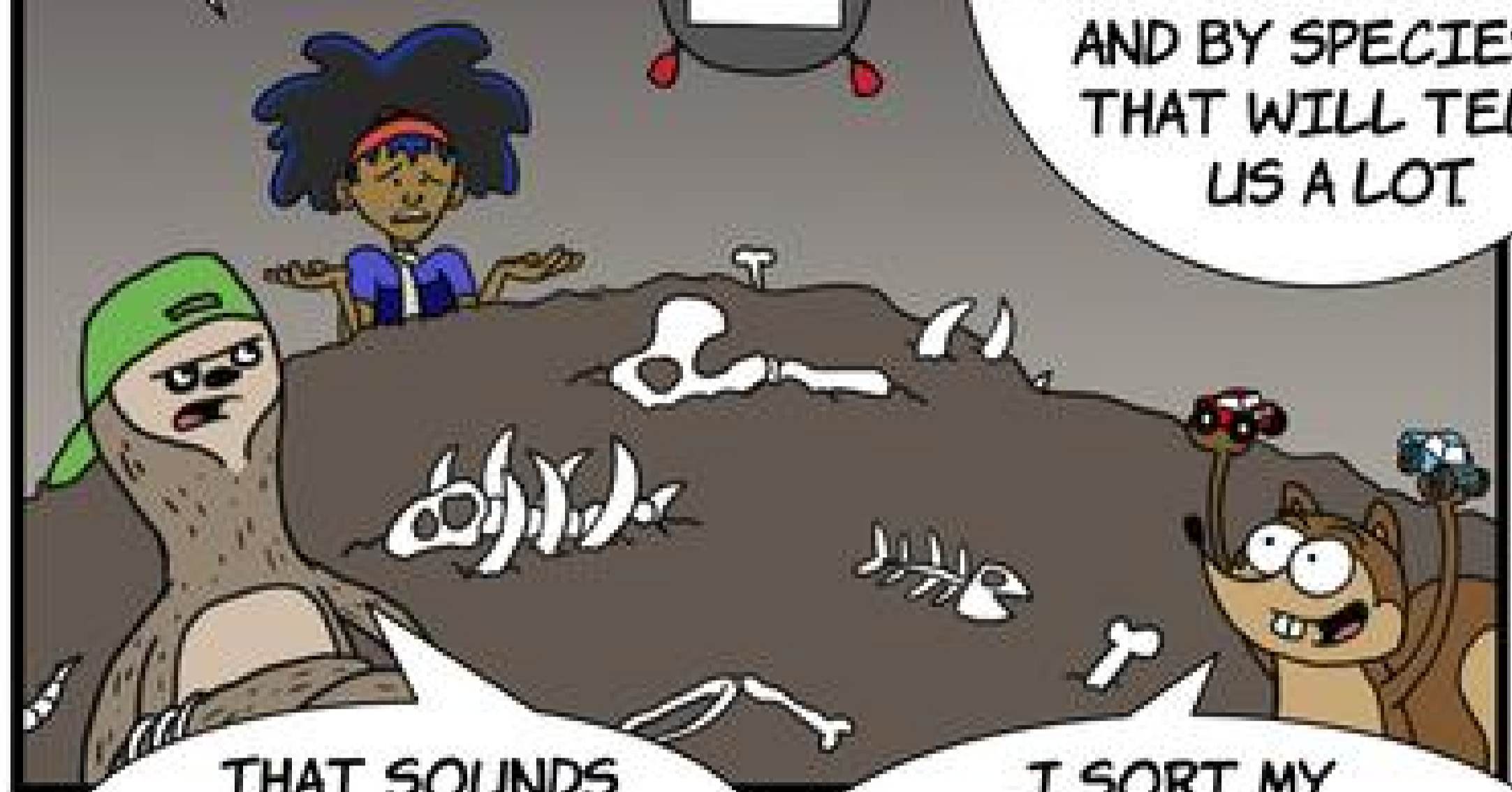
SO FOSSILS CAN HELP US SEE WHAT LIFE FORMS LOOKED LIKE IN THE PAST

AND IF WE LOOK AT FOSSILS OVER TIME, WE CAN SEE HOW LIFE FORMS CHANGED OVER TIME.

HOW DO WE LOOK AT FOSSILS OVER TIME?

THAT'S WHERE I NEED YOUR HELP. IF YOU COULD SORT THE FOSSILS FOR ME - OLDEST TO YOUNGEST AND BY SPECIES - THAT WILL TELL US A LOT

THESE ARE THE OLDEST FOSSILS, AND THEY'RE REALLY TINY! WHAT ARE THEY?



THAT SOUNDS SUSPICIOUSLY LIKE A CHORE.

I SORT MY MINI-MONSTER-TRUCKS THAT WAY EVERY NIGHT!

EARLY FORMS OF LIFE: VERY SIMPLE. EACH ONE HAS ONLY ONE CELL AND NO NUCLEUS.

NEXT COME MOSS AND ALGAE.

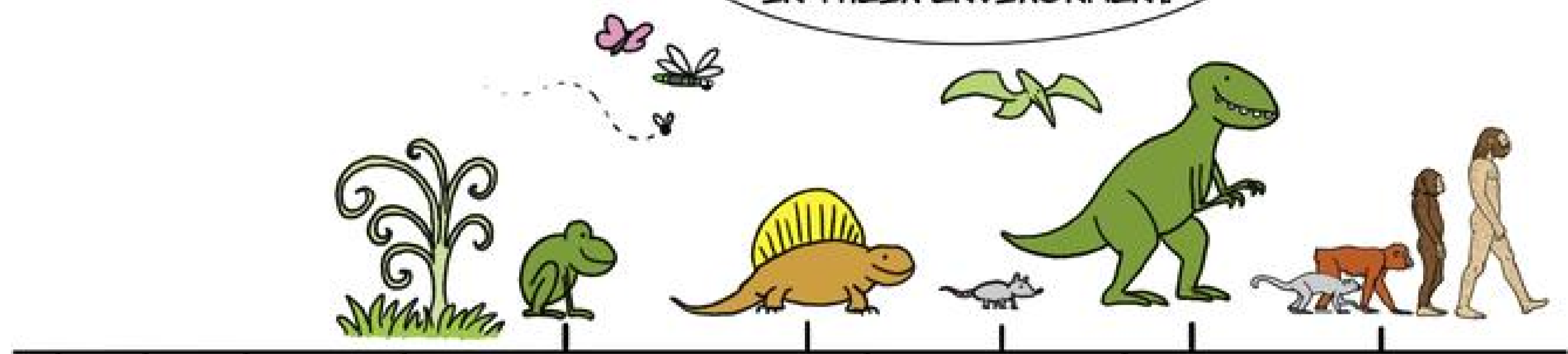
THE LATER FOSSILS ARE BIGGER AND MORE COMPLEX THAN THE ONES BEFORE.

SO LIFE FORMS EVOLVED... FROM SIMPLE TO MORE COMPLEX.

AND AFTER THAT, PLANTS WITH LEAVES AND FLOWERS!

OVER TIME, MUTATIONS CREATED MORE AND MORE NEW TRAITS THAT WERE HELPFUL IN THEIR ENVIRONMENT

EVOLVED. AS IN... EVOLUTION.



TONS OF MUTATIONS! LIFE FORMS GOT MORE COMPLEX AND MORE DIFFERENT. THEY DEVELOPED INTO WHOLE NEW SPECIES.

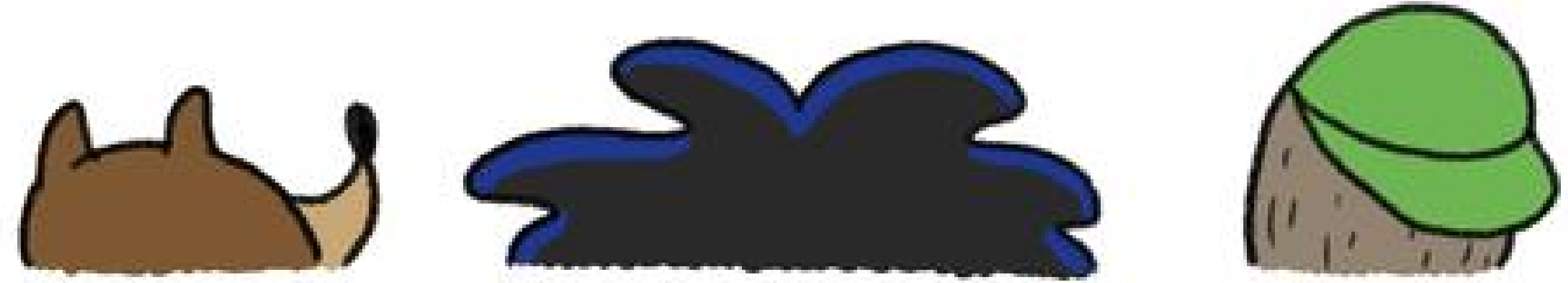
PLANTS MADE A LOT OF OXYGEN SO NEW LIFE FORMS THAT USE OXYGEN WERE ABLE TO DEVELOP.

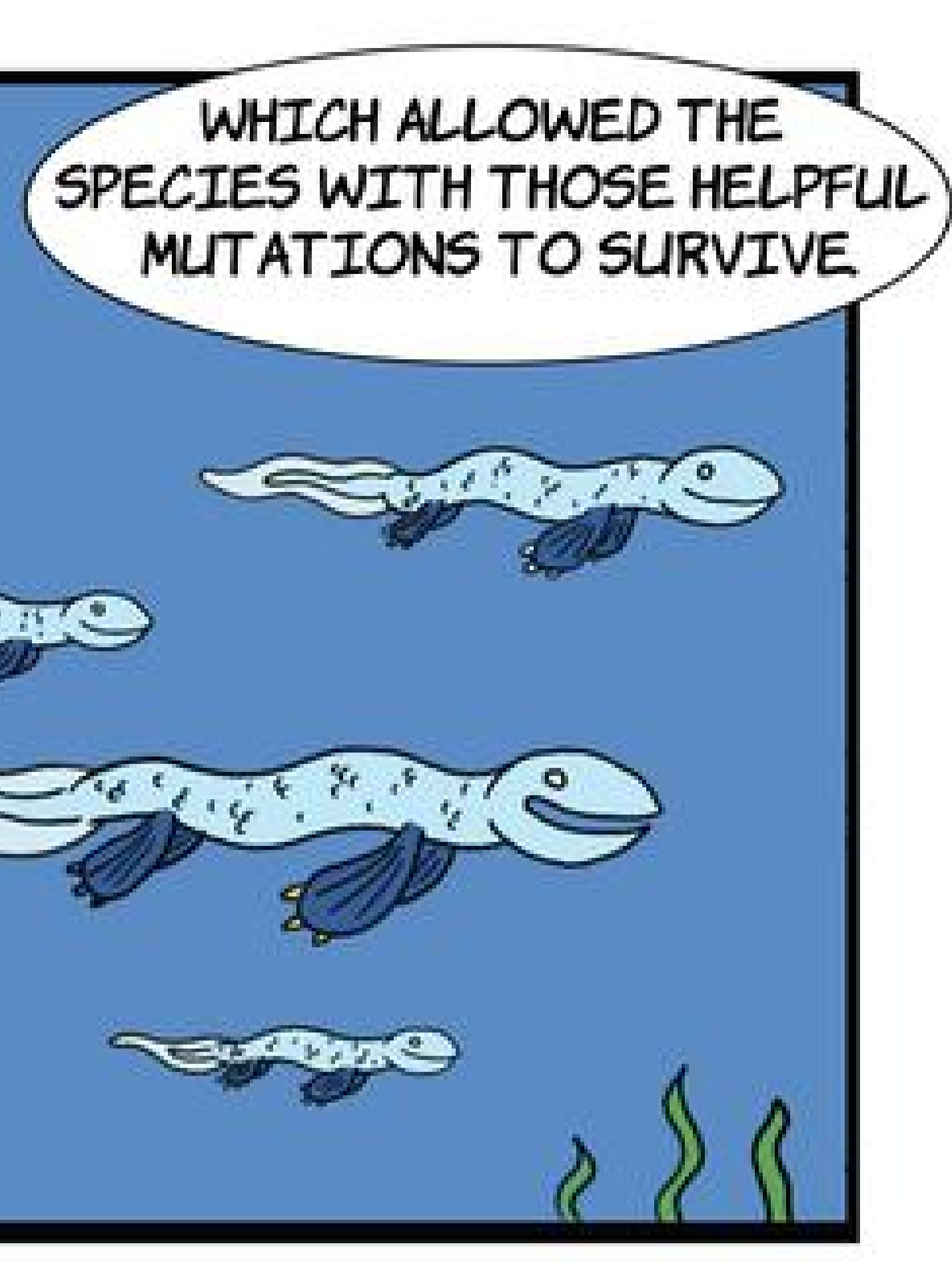
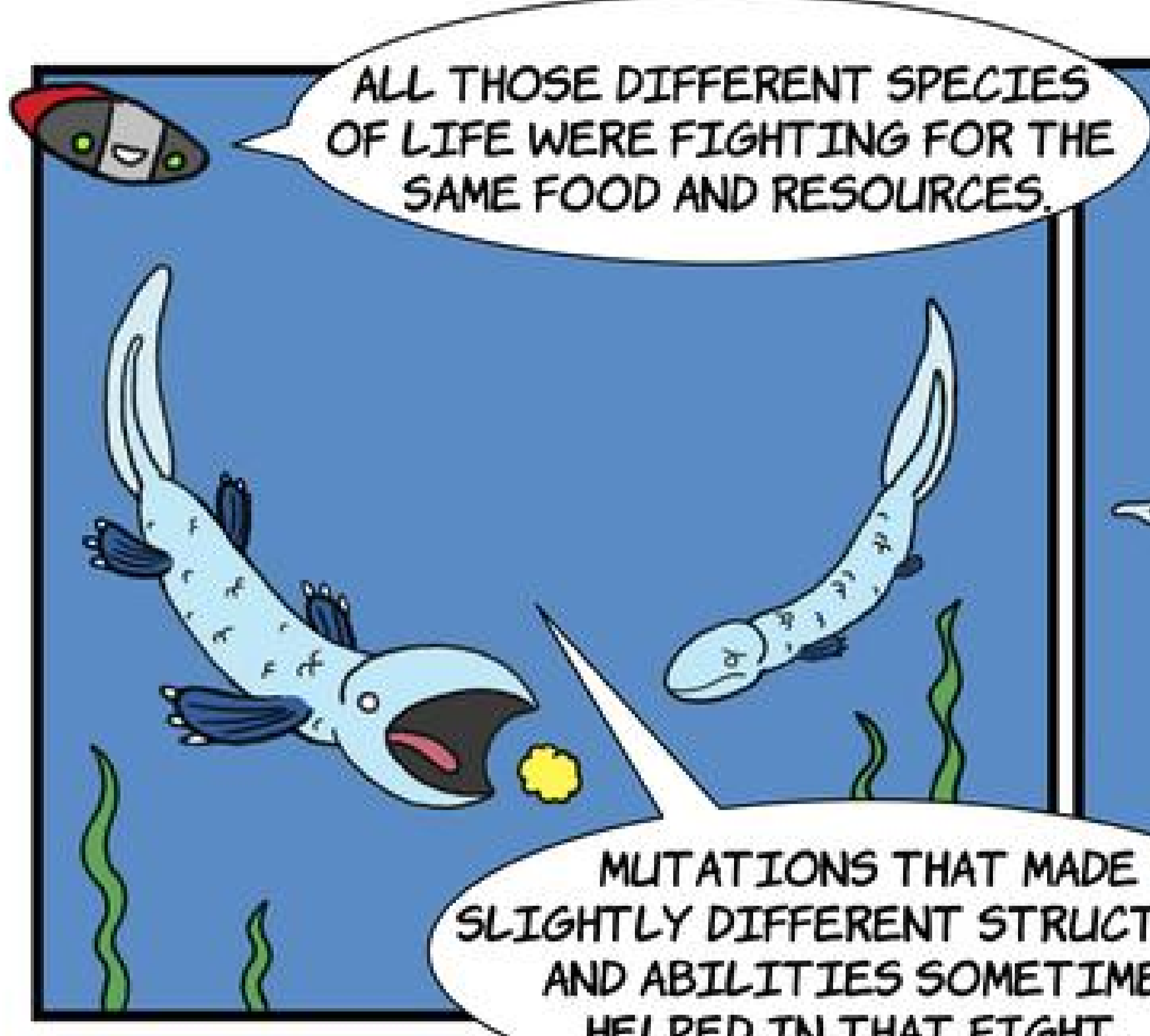
WHOAHHH! SUDDENLY, TONS OF NEW FOSSILS APPEARED! WHAT HAPPENED?!

THE ENVIRONMENT CHANGED.

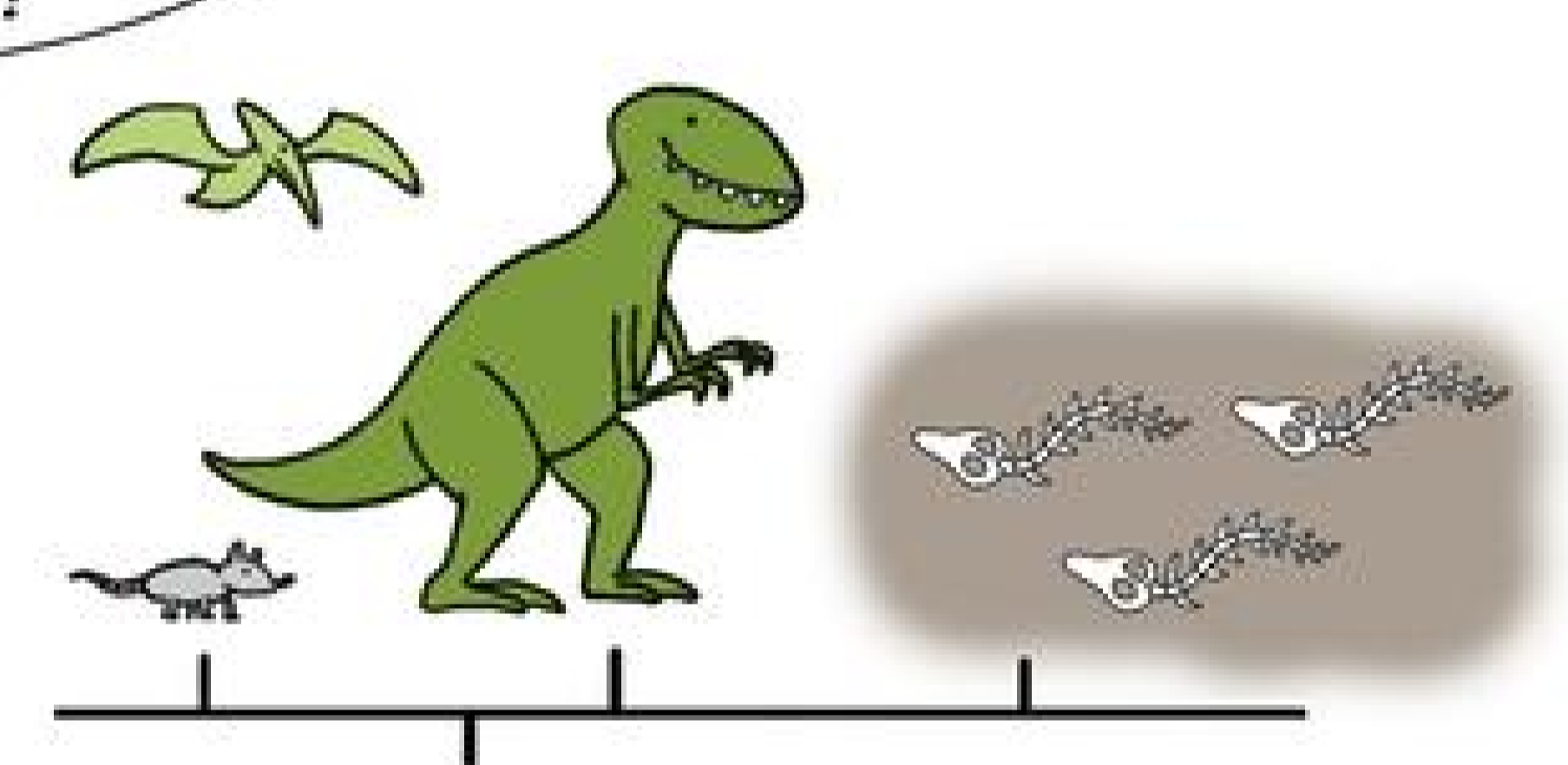
BUT WHY?

ANIMALS!!





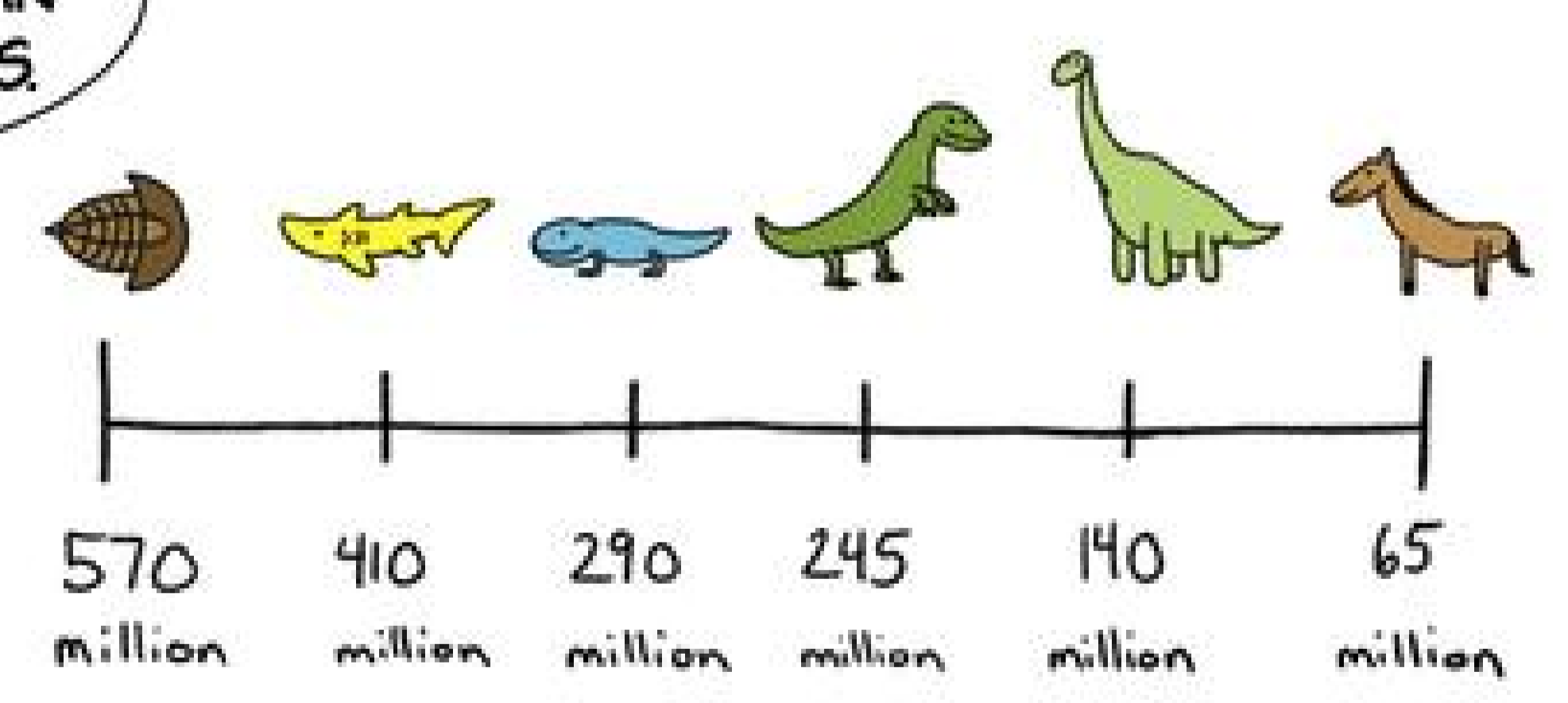
MUTATIONS THAT MADE SLIGHTLY DIFFERENT STRUCTURES AND ABILITIES SOMETIMES HELPED IN THAT FIGHT...



LOTS AND LOTS OF LIFE FORMS WENT EXTINCT CHANGES IN THE CLIMATE AND ENVIRONMENT MEANT THAT LOTS OF SPECIES COULD NOT SURVIVE.

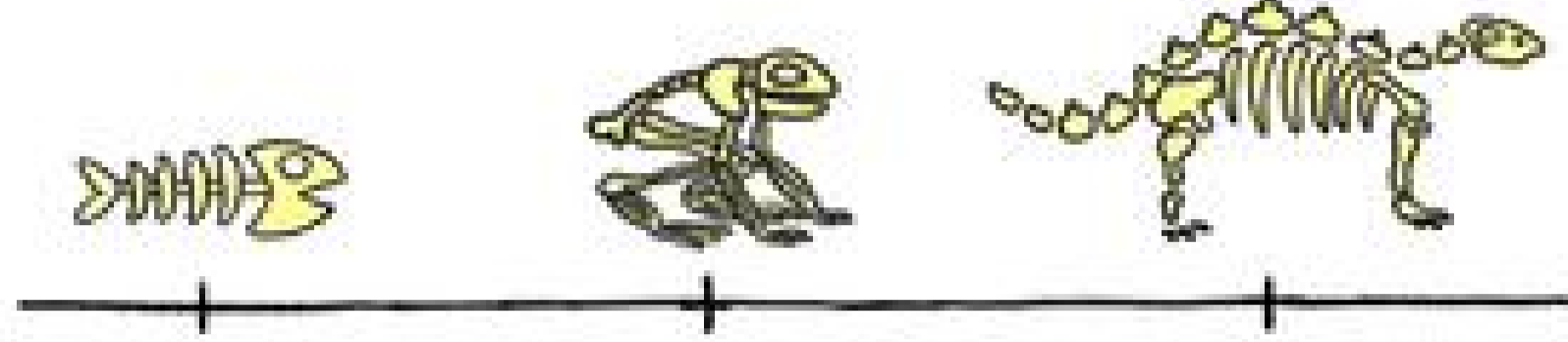
ONE MINUTE: LIFE, EVERYWHERE! THE NEXT MINUTE: ALL GONE.

EVOLUTION HAS MORE UPS AND DOWNS THAN THE HUNGER GAMES.

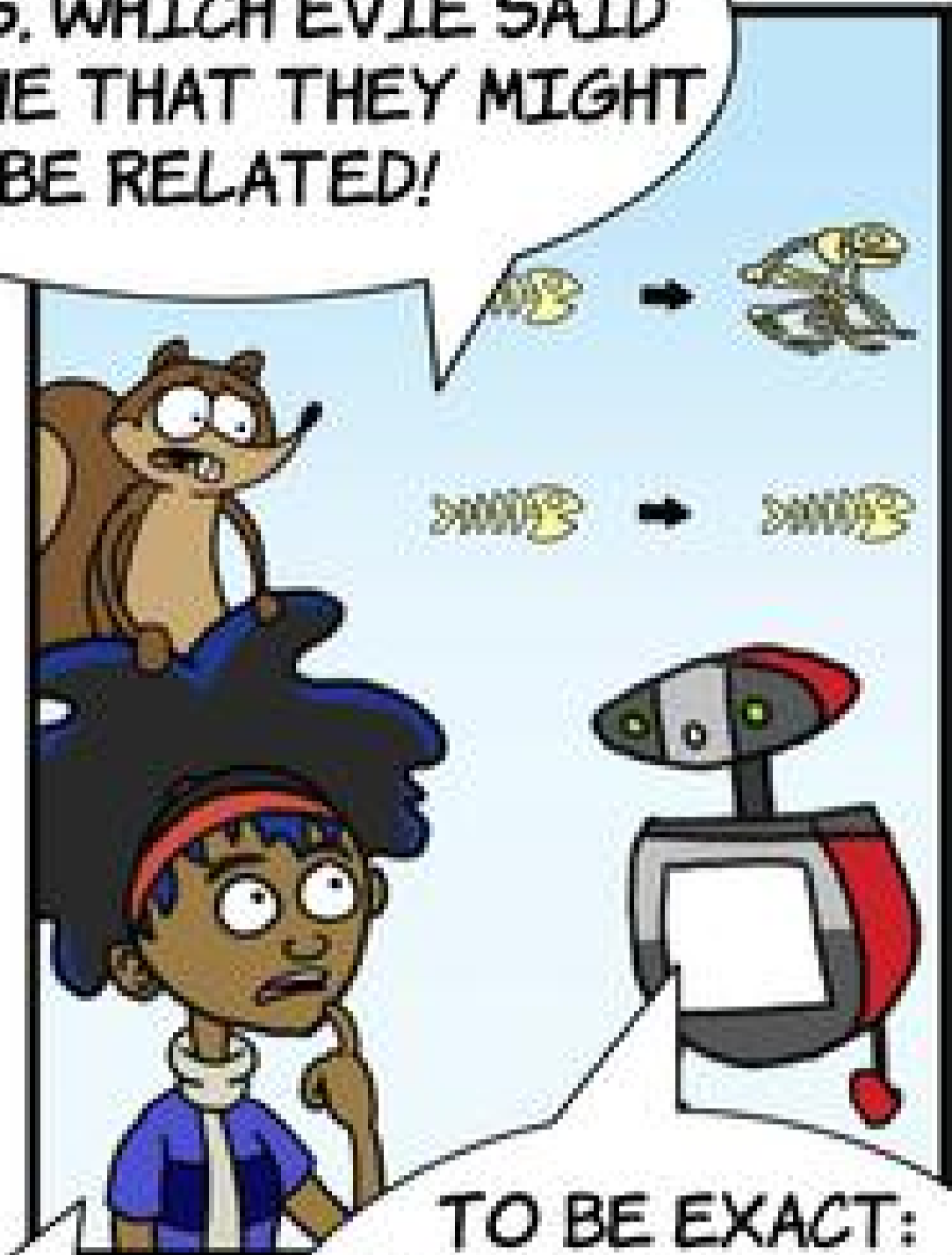


AND THE CHANGES DIDN'T HAPPEN SUDDENLY. THEY HAPPENED GRADUALLY... OVER MILLIONS AND MILLIONS OF YEARS.

SO... FOSSILS OF FISH WITH FINS COME BEFORE THE FOSSILS OF ANIMALS WITH LEGS.



FINS, LEGS AND ARMS ARE SIMILAR TRAITS, WHICH EVIE SAID IS A CLUE THAT THEY MIGHT BE RELATED!



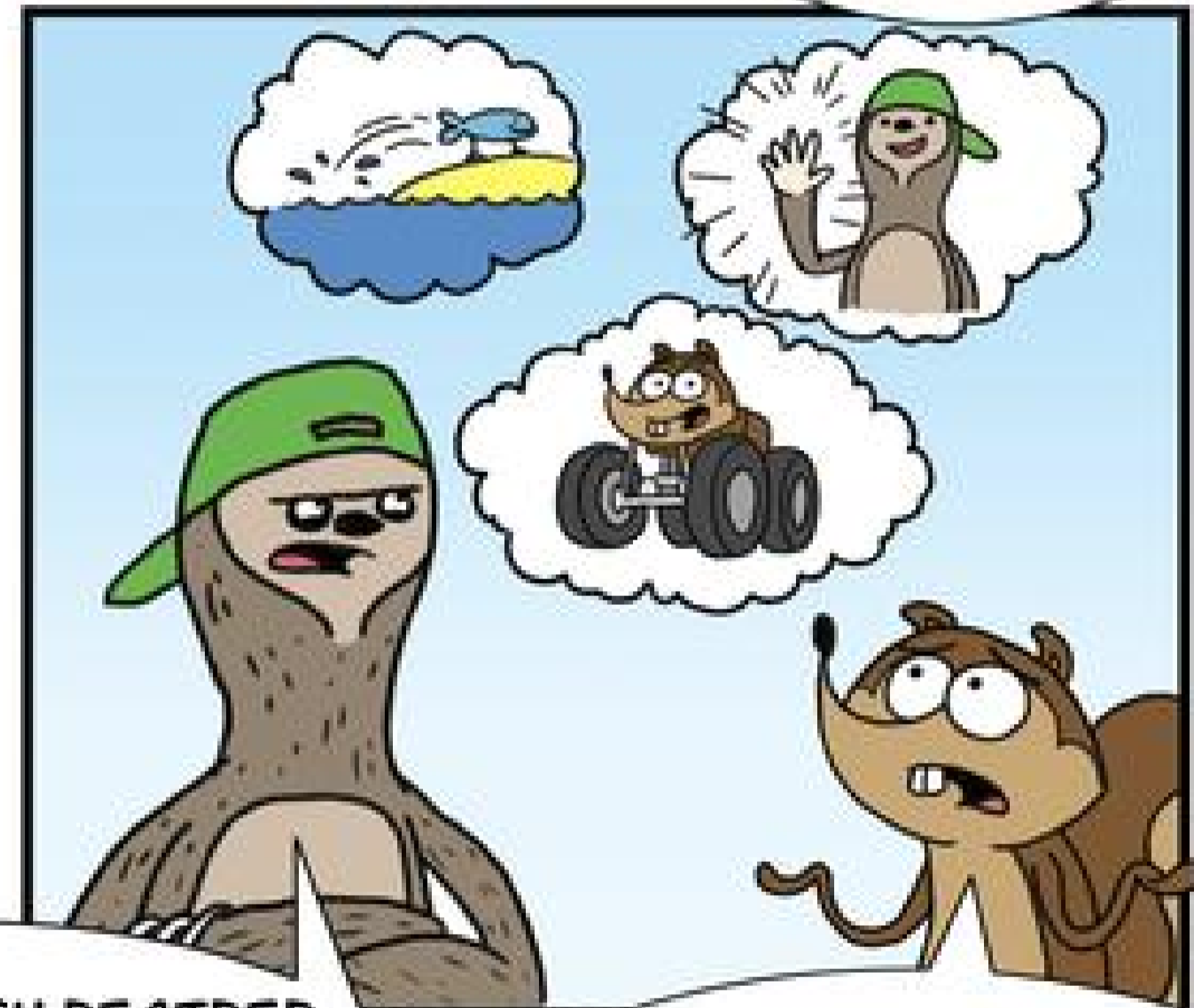
WHICH MEANS WHAT?

SO... FISH ARE THE ANCESTORS OF LAND ANIMALS?

TO BE EXACT: SOME SPECIES OF FISH EVOLVED INTO LAND ANIMALS. AND, OF COURSE, SOME SPECIES OF FISH -- WELL, JUST STAYED FISH.

AGAIN, A CHANGE IN ENVIRONMENT SEA LEVELS LOWERED, SO THERE WAS MORE OPEN SPACE ON LAND... AND LESS COMPETITION THERE FOR FOOD.

SO IT WAS AN ADVANTAGE TO SURVIVAL TO HAVE LEGS!



SO IF FISH DECIDED TO JUST SPROUT LEGS AND TURN INTO LAND ANIMALS... WHY CAN'T I JUST SPROUT TWO EXTRA TOES AND BECOME A HUMAN?!

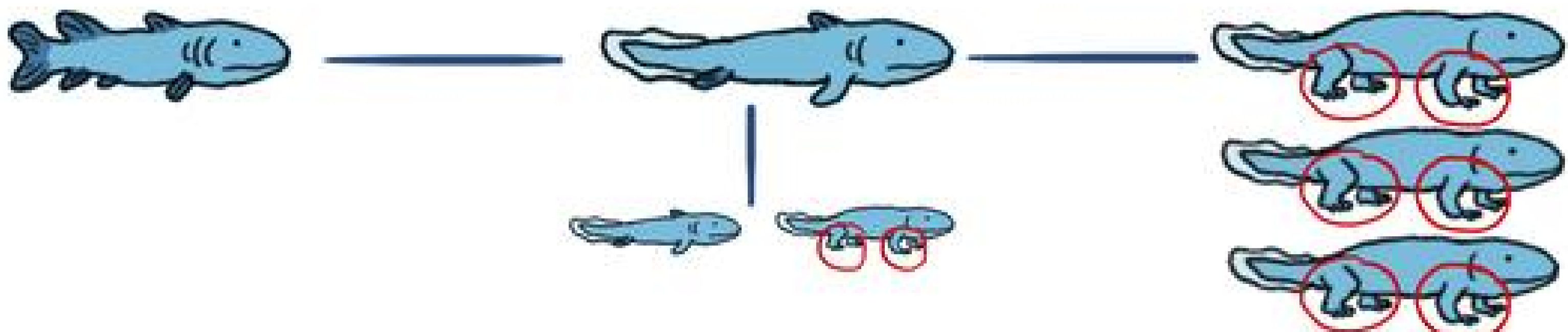
AND WHY CAN'T I SPROUT FOUR WHEELS AND BECOME A MINI-MONSTER TRUCK?!

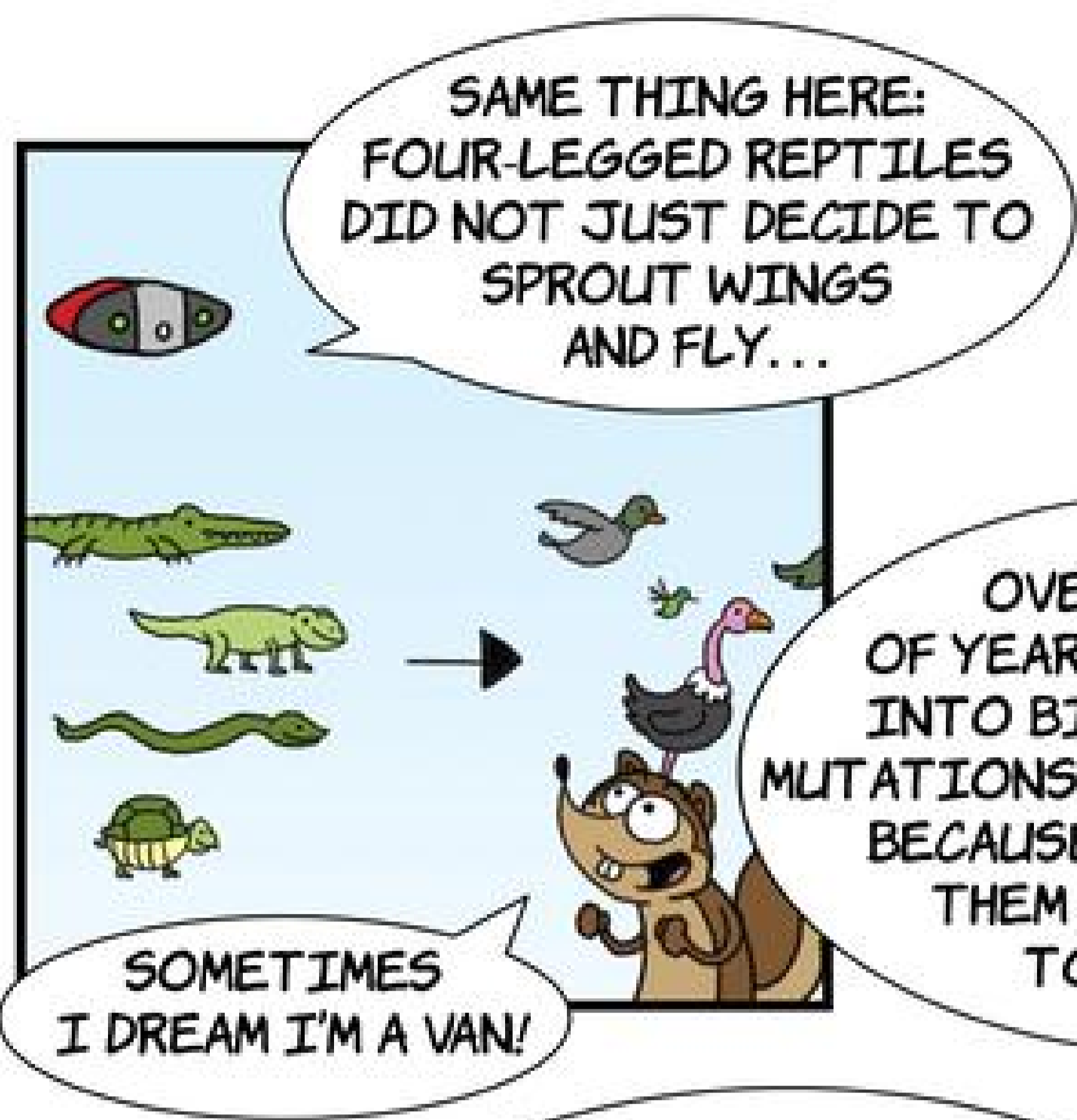


INDIVIDUALS CAN'T DECIDE TO JUST CHANGE THEIR TRAITS. IN FACT, THEY DON'T CHANGE THEIR TRAITS.

THEY HAVE OFFSPRING THAT MIGHT HAVE SLIGHTLY DIFFERENT TRAITS. THESE ARE CALLED MUTATIONS. AND IF A NEW TRAIT HELPS IT SURVIVE AND REPRODUCE, A CREATURE WILL BE MORE FIT FOR THE ENVIRONMENT AND MAY PASS IT ON TO ITS OFFSPRING. (ITS KIDS)

AND OVER MILLIONS AND MILLIONS OF YEARS, THE NEW TRAITS CAN WIND UP BEING SO DIFFERENT THAT IT BECOMES A WHOLE NEW SPECIES





SAME THING HERE: FOUR-LEGGED REPTILES DID NOT JUST DECIDE TO SPROUT WINGS AND FLY...

SOMETIMES I DREAM I'M A VAN!

OVER MILLIONS OF YEARS, THEY EVOLVED INTO BIRDS BECAUSE OF MUTATIONS AND ENVIRONMENT? BECAUSE... WINGS GAVE THEM AN ADVANTAGE TO SURVIVE?



LEGS, ARMS AND WINGS: MORE SIMILAR TRAITS!

OKAY, SURE. FLYING LOOKS LIKE FUN BUT HOW IS IT AN ADVANTAGE?



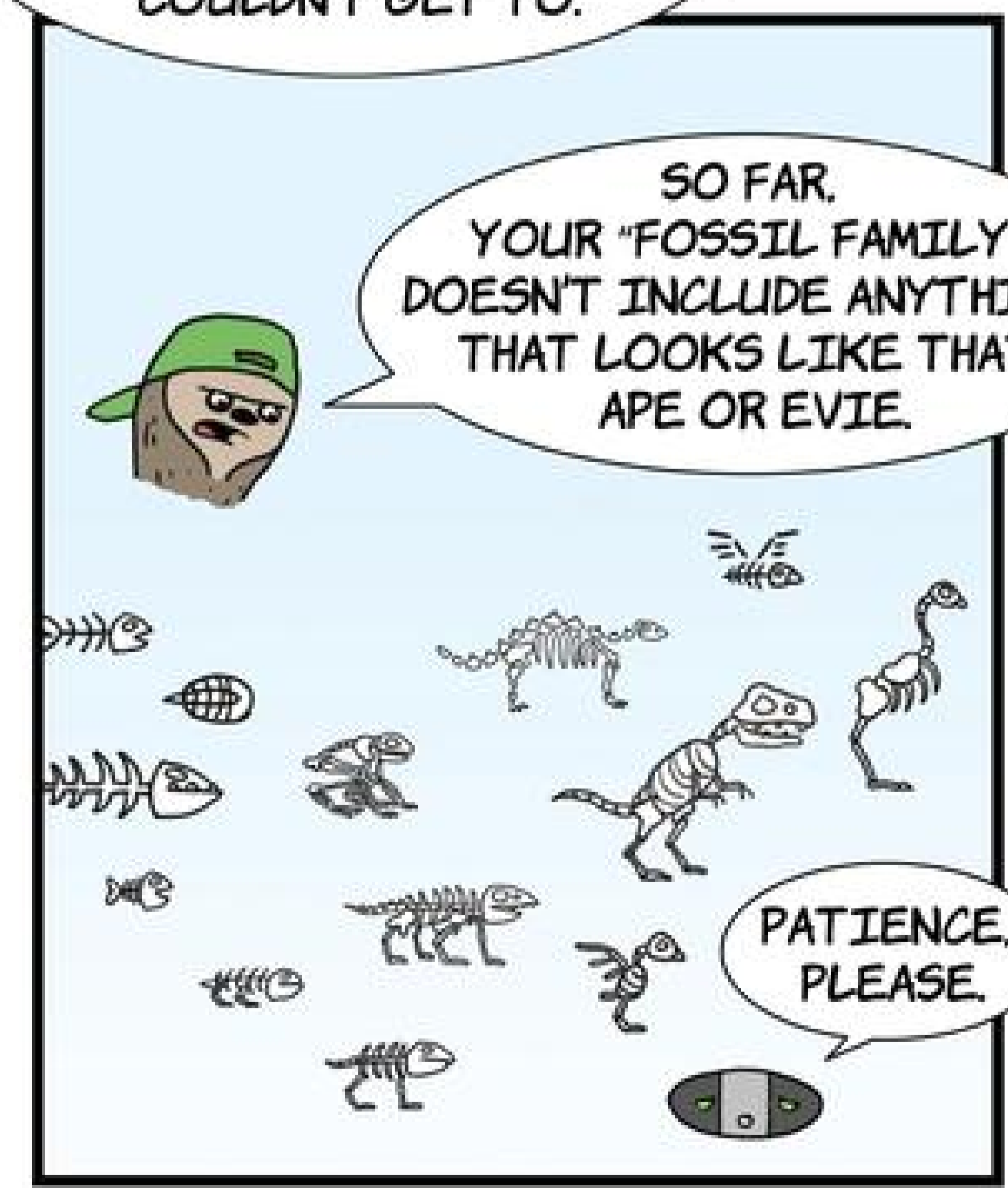
LOOKS LIKE THERE WERE A LOT OF OTHER LAND CREATURES AT THE SAME TIME. WHICH MEANT: MORE COMPETITION FOR FOOD.

HAVING WINGS HELPED THEM REACH PLACES WITH FOOD THAT OTHER CREATURES COULDN'T GET TO.



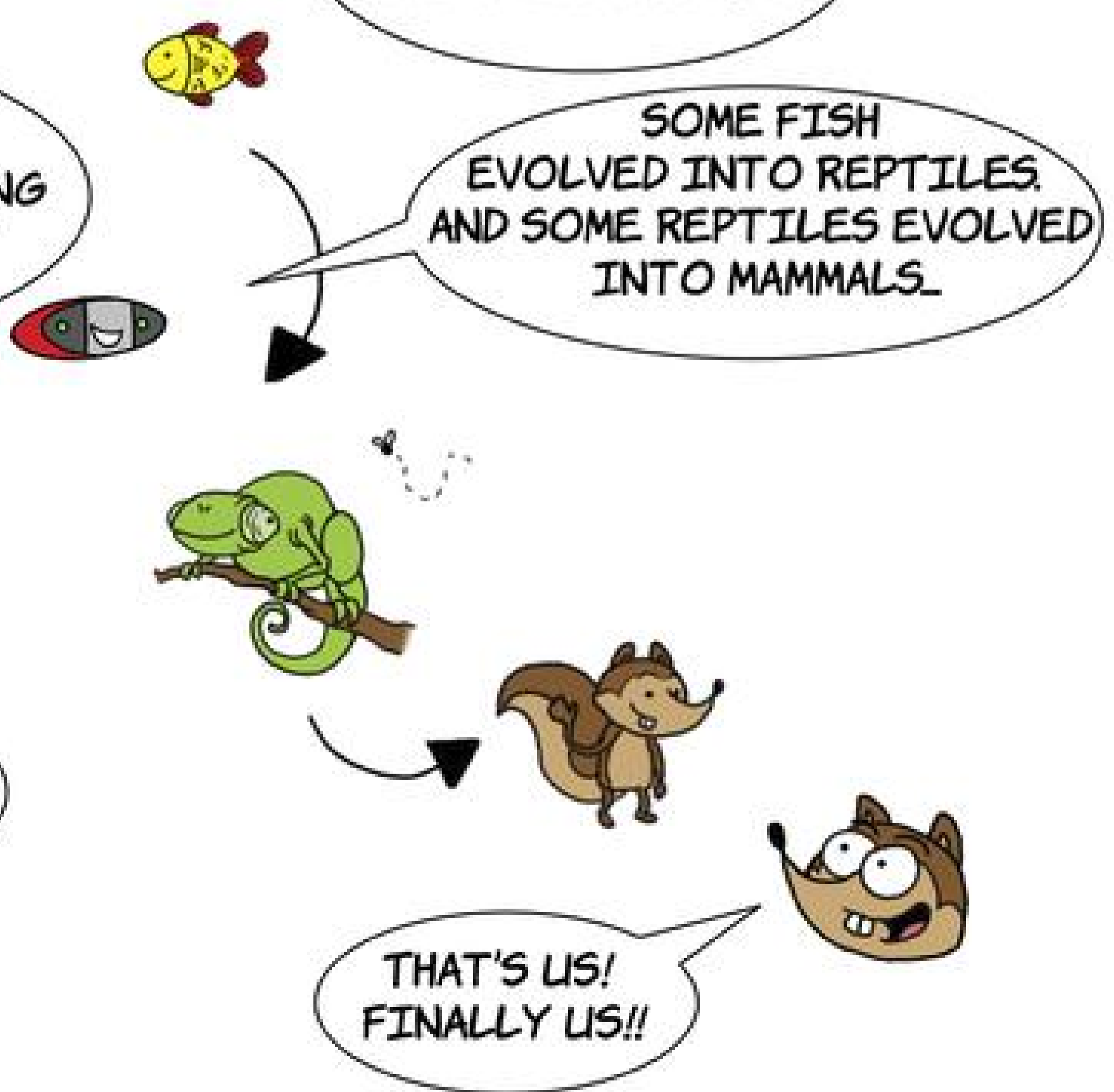
AND THE LAND CREATURES WERE GETTING BIGGER - LIKE THESE DINOSAURS HERE. WHICH MADE IT EASIER FOR THEM TO EAT THE SMALLER CREATURES.

SO WINGS HELPED CREATURES... ESCAPE AND SURVIVE?



SO FAR, YOUR "FOSSIL FAMILY" DOESN'T INCLUDE ANYTHING THAT LOOKS LIKE THAT APE OR EVIE.

PATIENCE, PLEASE.

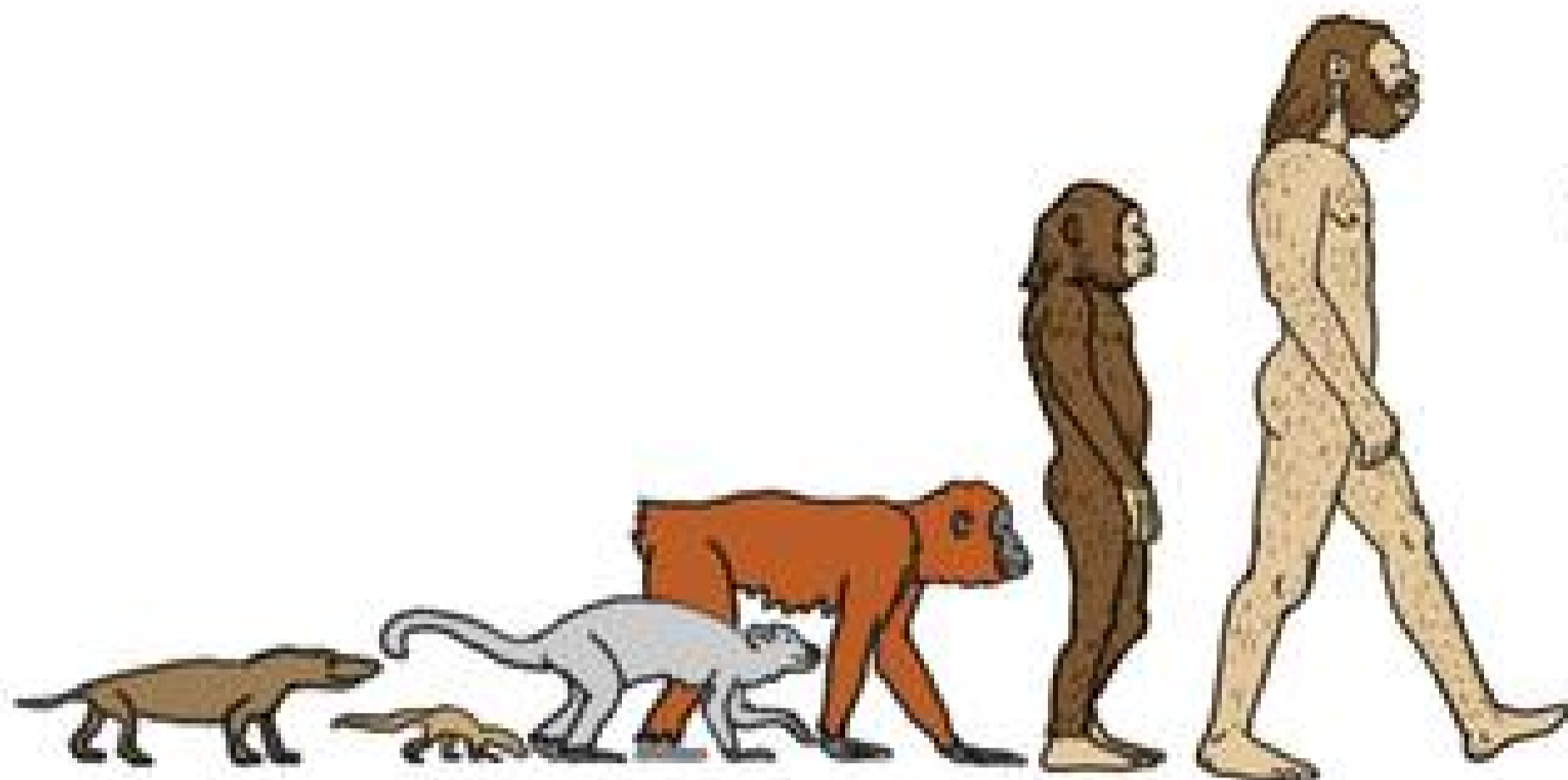


SOME FISH EVOLVED INTO REPTILES, AND SOME REPTILES EVOLVED INTO MAMMALS.

THAT'S US! FINALLY US!!

AND LOOK HOW MAMMALS EVOLVE... FROM SIMPLE TO COMPLEX...

AND HERE: ONE PARTICULAR MAMMAL - THE APE - EVOLVES INTO...



A HUMAN!!

SO BY COMPARING THE TRAITS OF FOSSILS IN ORDER...

HOLD ON! JUST BECAUSE MAMMAL FOSSILS COME AFTER REPTILE FOSSILS, HOW DOES THAT PROVE MAMMALS CAME FROM REPTILES?!

IT LOOKS LIKE... SOME FISH EVOLVED INTO AMPHIBIANS, AND SOME AMPHIBIANS EVOLVED INTO REPTILES, AND SOME REPTILES EVOLVED INTO BIRDS AND MAMMALS.

FROM FINS, TO LEGS OR ARMS, TO WINGS! ANOTHER CLUE WE CAME FROM THE SAME ANCESTOR... AND WE'RE ALL RELATED!

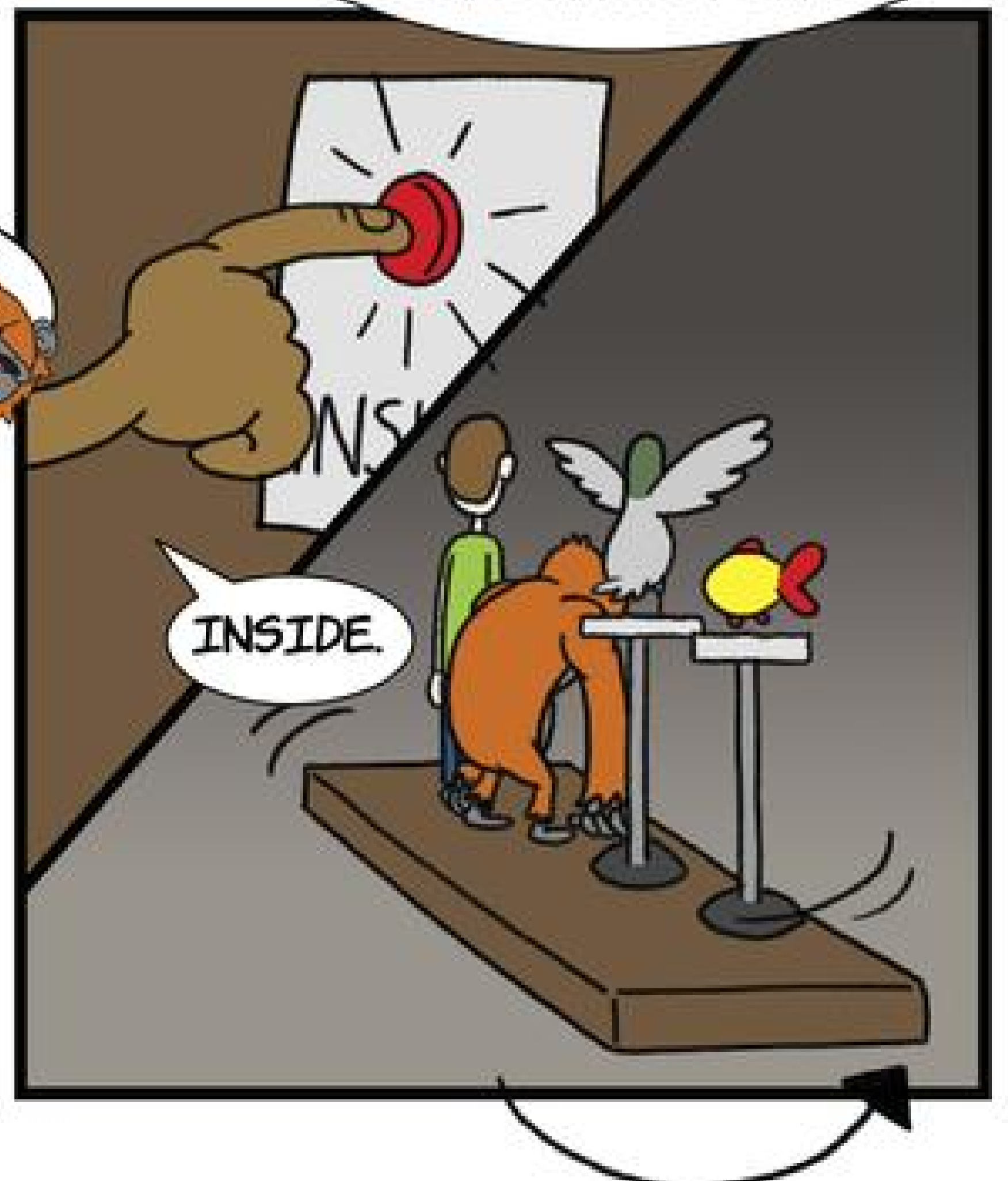
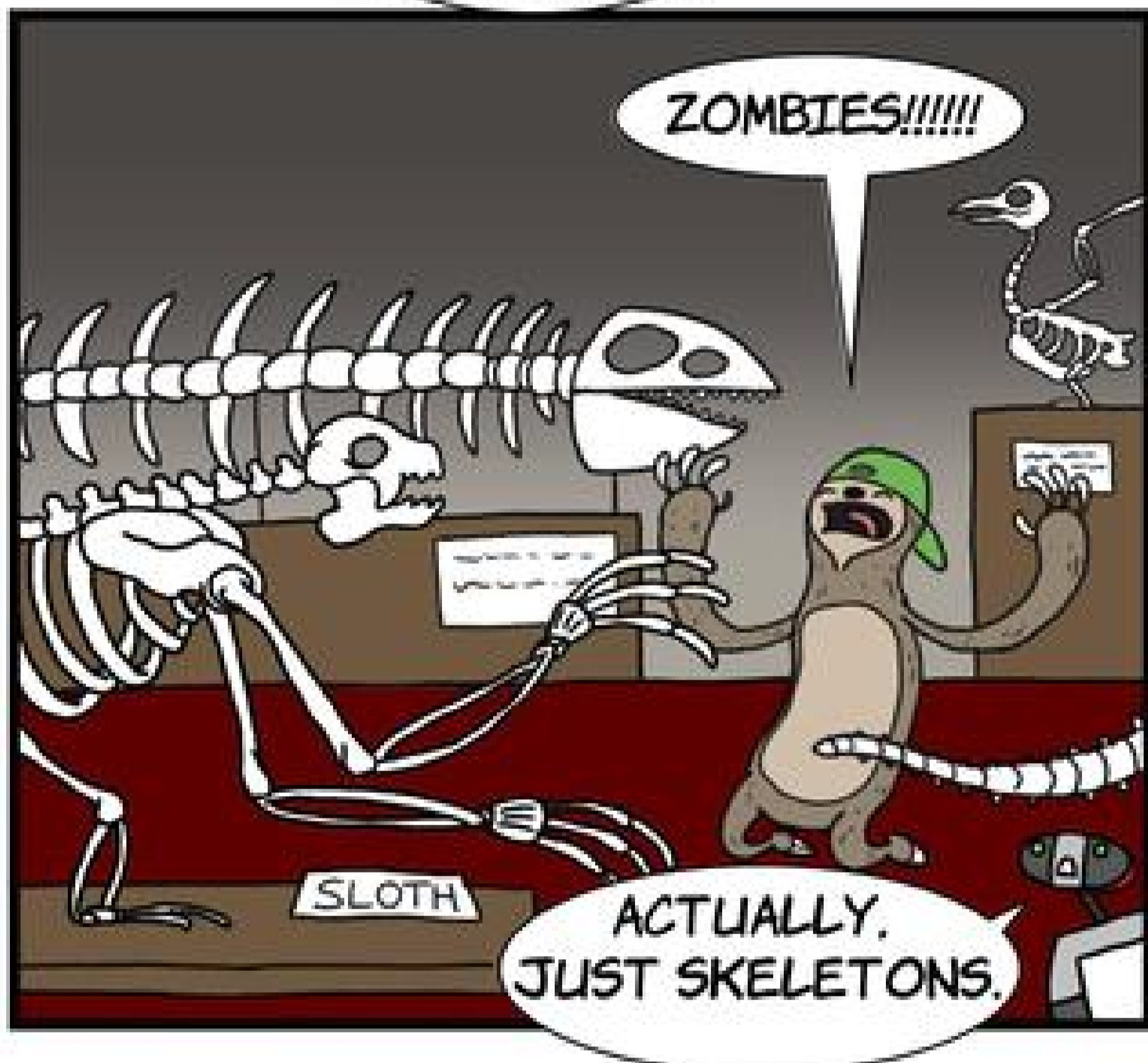
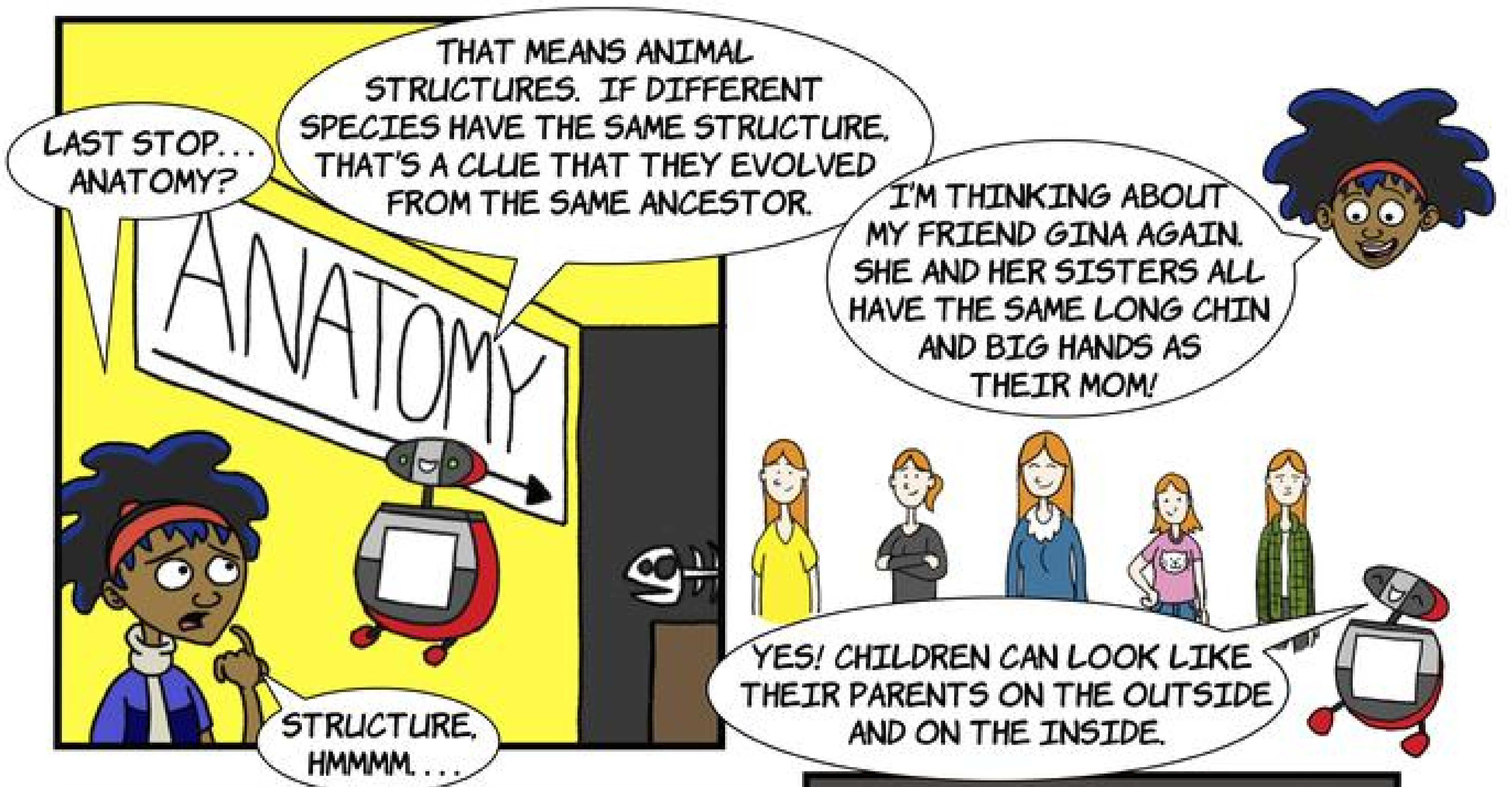
HOW DOES IT PROVE THAT THEY'RE RELATED?!

I COULDN'T HAVE SAID IT BETTER, SLOTH. NOW IF YOU'LL EXCUSE ME, I'M GOING DOWN TO THE COURTHOUSE TO HAVE EVIE'S WILL THROWN OUT

YOU'RE NOT GOING ANYWHERE, TED.

NOT UNTIL MOSA LOOKS EVERYWHERE EVIE TOLD HER TO!

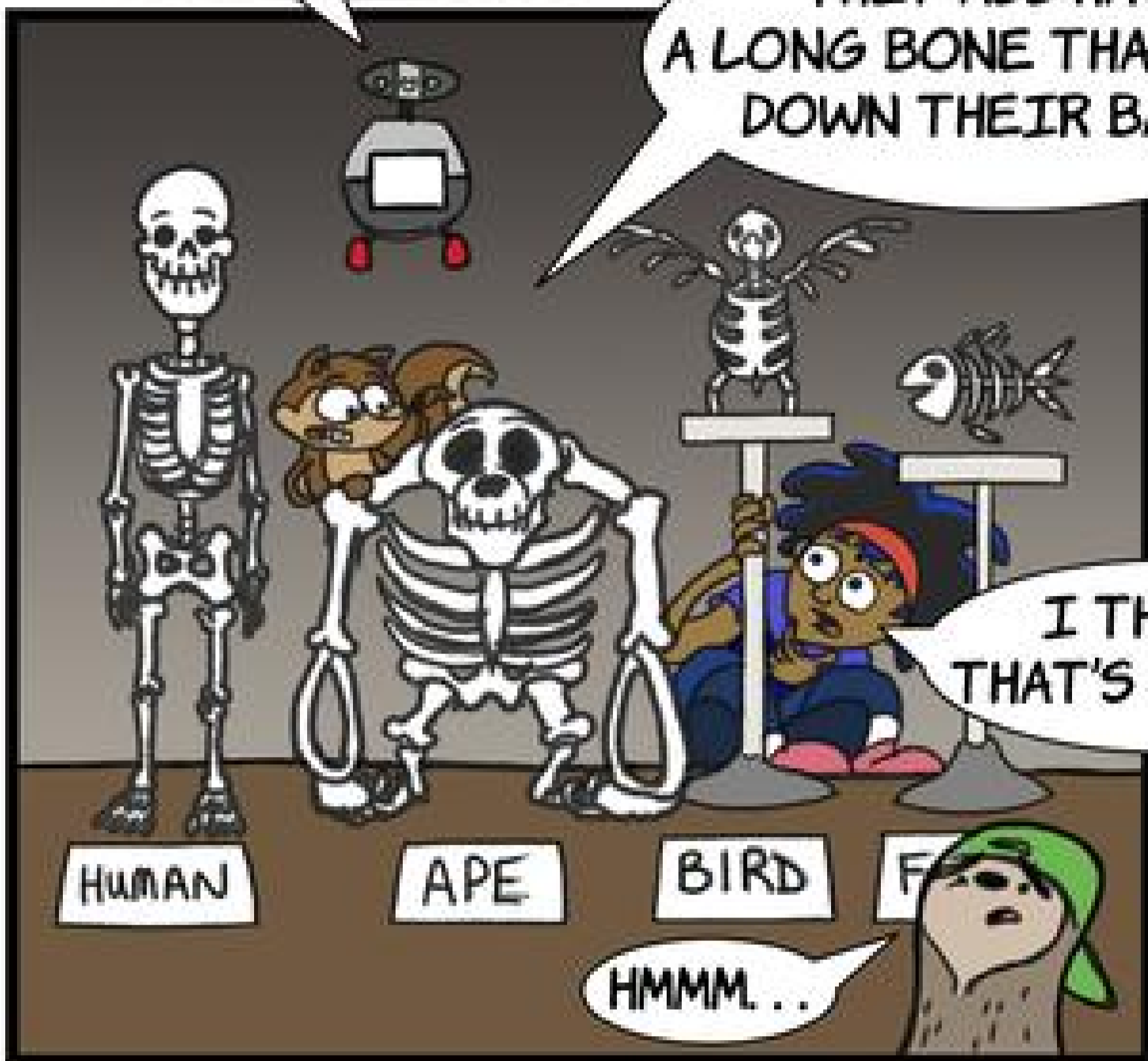
MEANWHILE, IN THE LIBRARY



THAT'S MORE LIKE IT. NOW WHAT DO YOU SEE?

THEY ALL HAVE A LONG BONE THAT GOES DOWN THEIR BACKS!

AND THE FIN-BONES STICK OUT FROM THE FISH'S BODY... JUST LIKE THE WING-BONES ON THE BIRD AND THE ARM- AND LEG-BONES ON THE APE AND HUMAN!

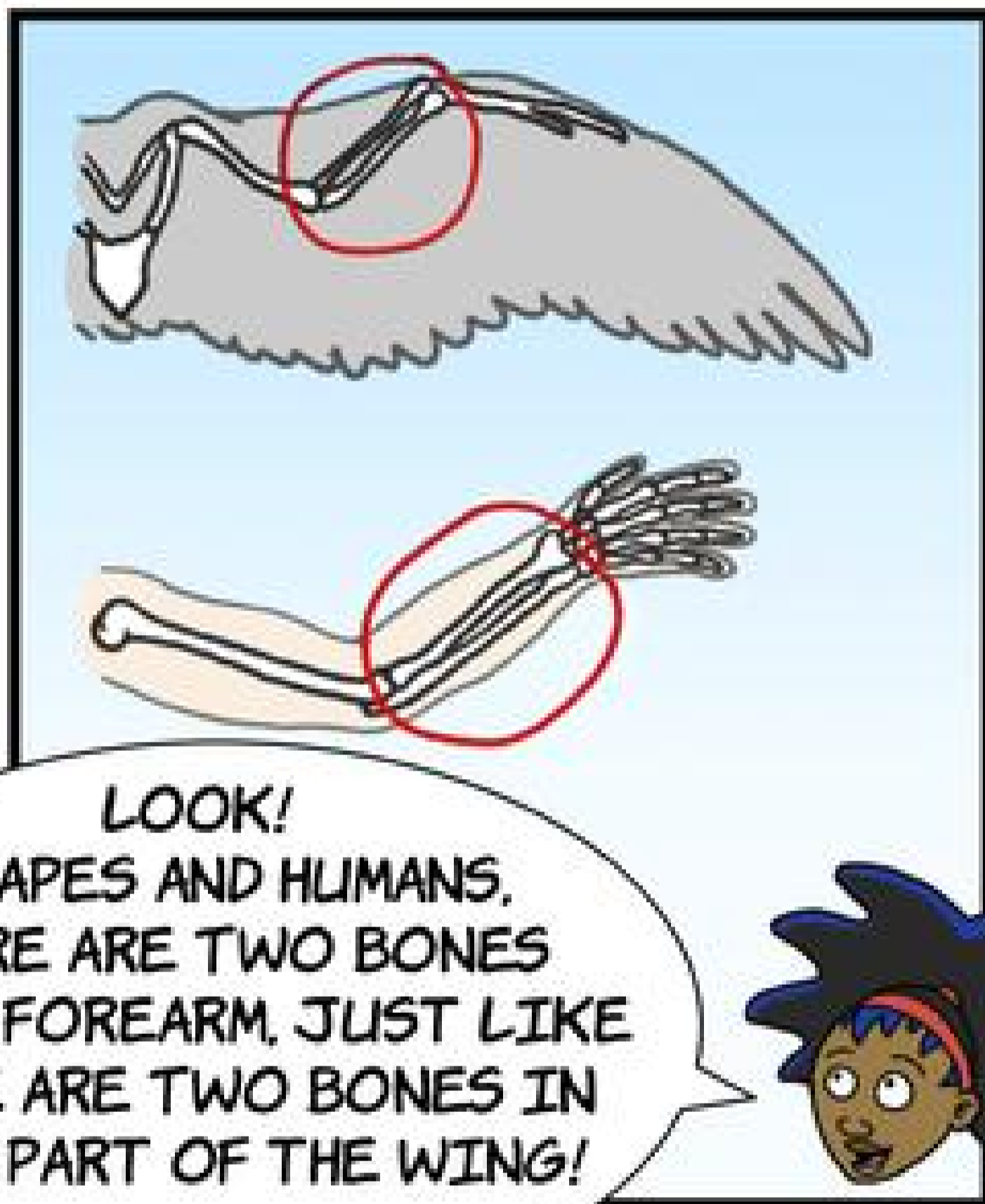


I THINK THAT'S A SPINE

HMMM...



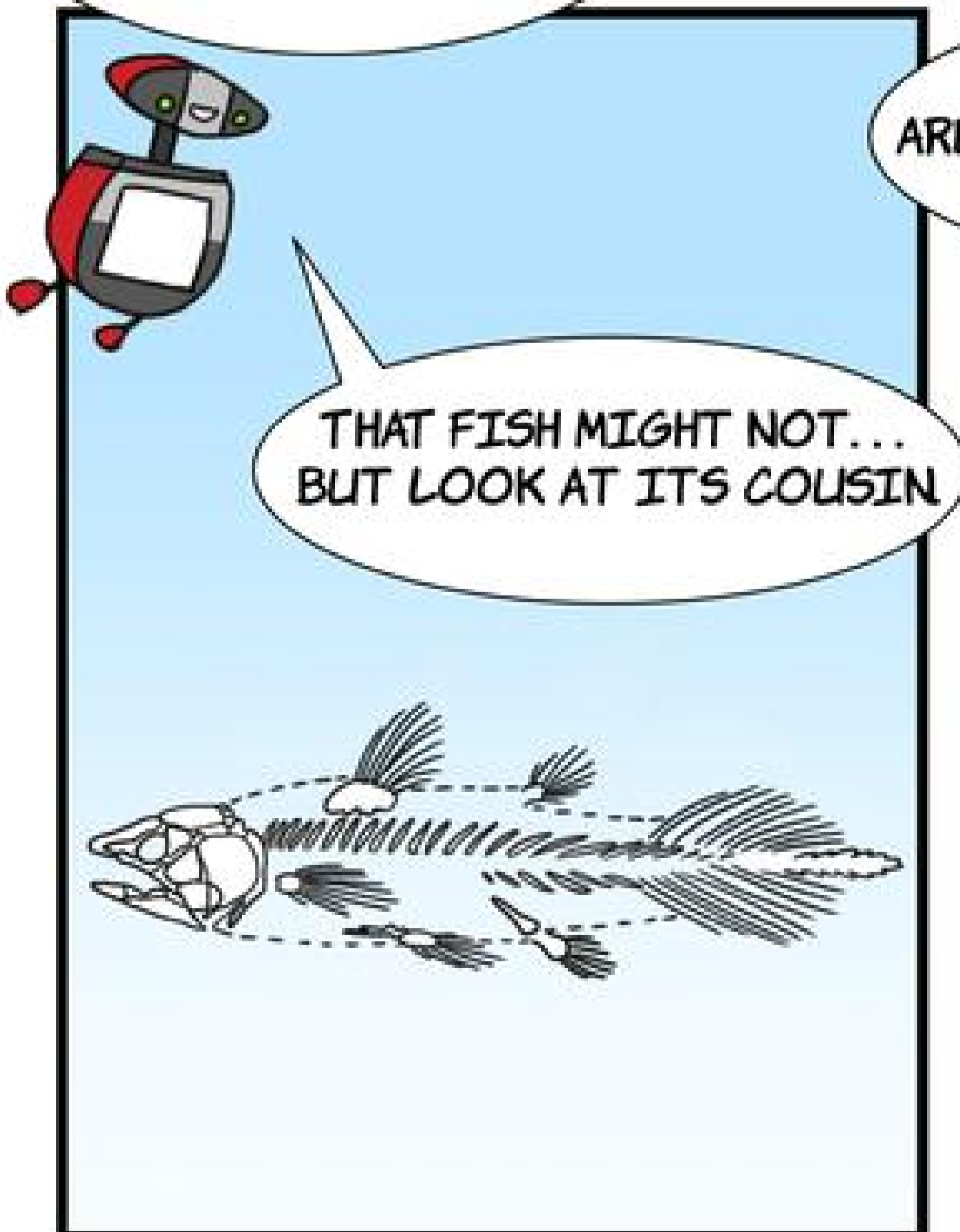
AND LOOK EVEN CLOSER



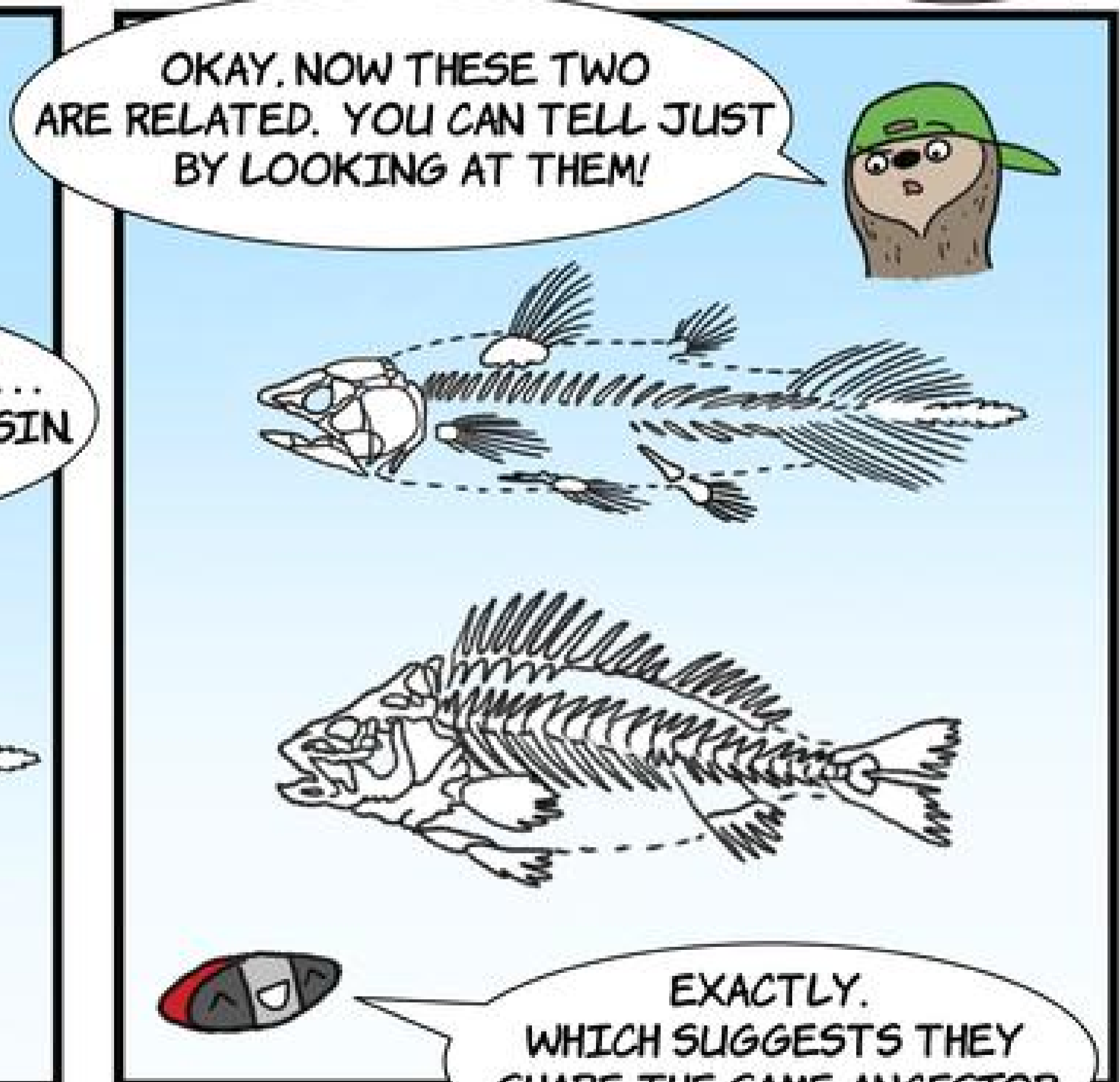
LOOK! IN APES AND HUMANS, THERE ARE TWO BONES IN THE FOREARM, JUST LIKE THERE ARE TWO BONES IN THIS PART OF THE WING!



BUT! THE FISH HERE DOESN'T HAVE THAT AT ALL.

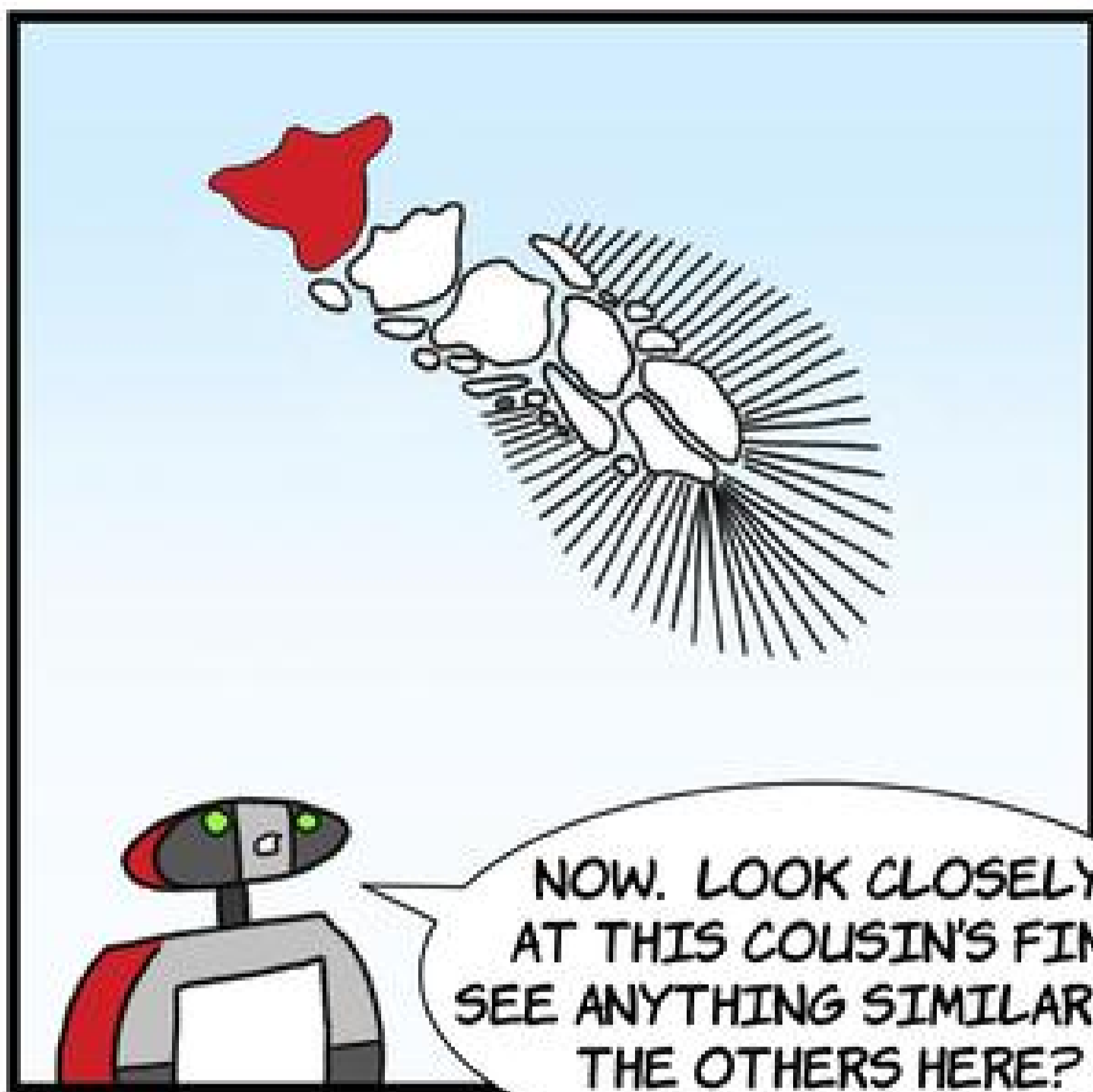


THAT FISH MIGHT NOT... BUT LOOK AT ITS COUSIN



OKAY, NOW THESE TWO ARE RELATED. YOU CAN TELL JUST BY LOOKING AT THEM!

EXACTLY. WHICH SUGGESTS THEY SHARE THE SAME ANCESTOR.

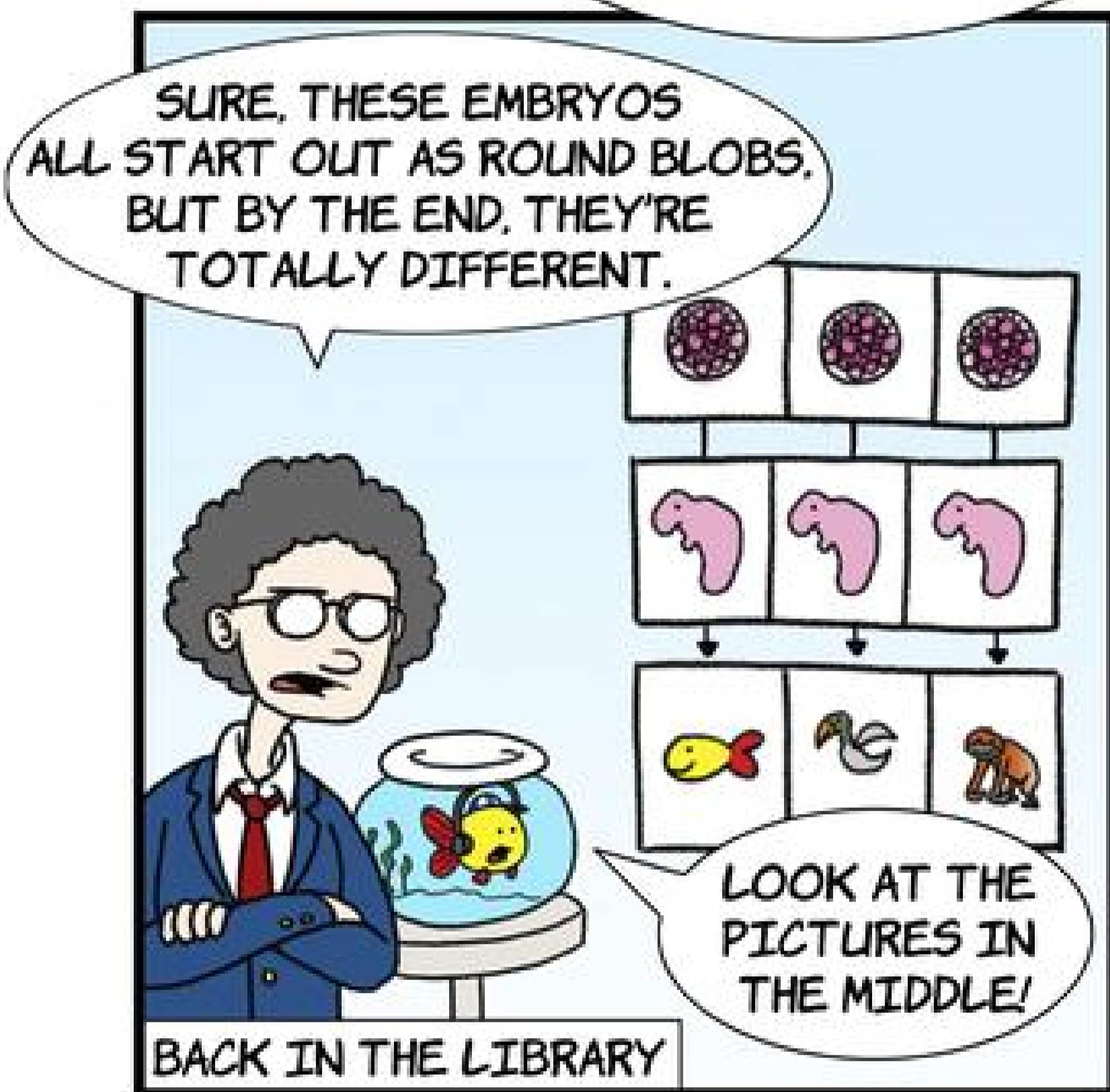


NOW. LOOK CLOSELY AT THIS COUSIN'S FIN SEE ANYTHING SIMILAR TO THE OTHERS HERE?



I DO! I TOTALLY DO!!

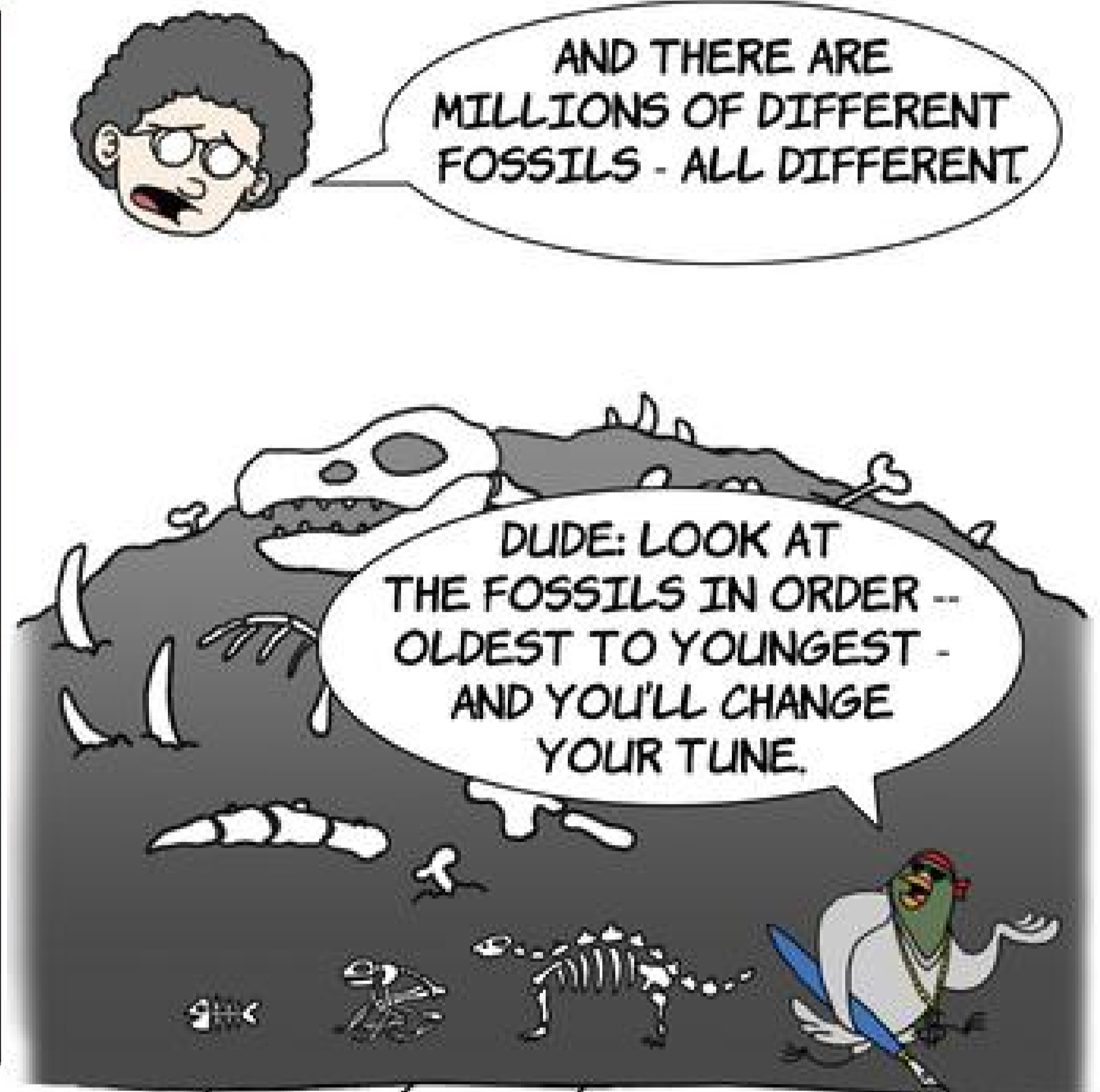
OKAY. OKAY: SHOW ME!!



SURE. THESE EMBRYOS ALL START OUT AS ROUND BLOBS. BUT BY THE END, THEY'RE TOTALLY DIFFERENT.

LOOK AT THE PICTURES IN THE MIDDLE!

BACK IN THE LIBRARY



AND THERE ARE MILLIONS OF DIFFERENT FOSSILS - ALL DIFFERENT.

DUDE: LOOK AT THE FOSSILS IN ORDER -- OLDEST TO YOUNGEST - AND YOU'LL CHANGE YOUR TUNE.



AND NOTHING IN THESE BONES LOOKS THE SAME, EITHER!

LOOK CLOSER, TED.



EMBRYOS, FOSSILS AND ANATOMY!



WHAT DID MOSA FIGURE OUT?