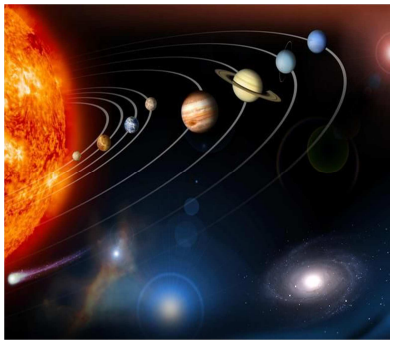
izzy levy, giulia veneziano, audrey reeb

Prologue

In another universe there were celestial beings that were researching science. They came upon a way to create a whole mini universe by having an empty capsule and then using their powers they would create something and expand it very quickly.



They made many minverses. The celestial beings made sure to supervise the growth of most miniverses, but ours was a bit neglected so that it took a while for life to actually form. It spins because the small particles that make up everything is spinning, it also has to do with the law of inertia and gravity. The celestial beings didn't really see that coming though. When it did there were all sorts of creatures, but one of the least advanced creatures were humans.

The celestial beings moved humans to a solar system that had formed around a medium sized star. The star had formed from a nebula that had collapsed into itself due to gravity. It started out as a disc who's outskirts later turned into the planets in that solar system; the parts that didn't form planets just formed asteroid belts. That star is not the first to

be in that area of space and you can tell because there are heavier elements present in it that can only be formed from an exploding star.

The solar system had 12 planets and was near an asteroid belt and so there was a good amount of resources. There was mars that could support life so they moved humans there so that they wouldn't disrupt other life.

Intro

4.5 billion years ago we lived on Mars, but we had used up almost all of our planet's resources. We realized too late that the planet was in danger. There were harmful toxins in the air that had been created during our stage of chemical warfare, water was polluted and animals were dying, there was no more food, all vegetation had died, and we started running out of oxygen. Mars could not sustain us for much longer so we had to find a new home... My name is Smeagol and this is the story of Earth.

Chapter 1

¨So what's for breakfast?¨ I asked even though I knew that the citizens of Mars had been eating nothing but ration packets for the past 6 months.

¨Don´t play dumb" said my Mother, ¨You know exactly what is it.¨

¨But I hate those stupid packets! They´re all the same! and they taste like mud¨ said my little sister as she walked in from the adjacent room. Motezuse wasn´t even 7 years old yet but had already adopted my hatred of ration packets.

¨Ok enough bickering, just eat or you'll be late for school.¨ My mother scolded.

School on Mars wasn't like what you have on Earth, all of our work was focussed on finding a solution for our planet's demise. School was hours of looking over charts and sending bots to try and find goldilocks planets in far off galaxies. It was tedious work, but it had to be done. So I hopped onto the hover train and stared out the window, watching the desert landscape fly by as the train wended its way to my school.

¨Hey¨ said Trapezius as soon as I stepped off the train. He was my best friend and had been since we were born.

¨I Noticed you weren't at the lecture yesterday.¨

¨Yah, I didn't feel good so I went home early.¨ It was a lie of course, I had ditched class right before the lecture.

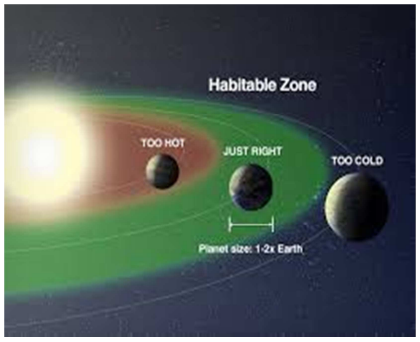
Every single one was the same, Glemtlude always told the same story, ¨Our planet is dying, let's do something about it yada yada yada...¨ Nothing new. Glemtlude was our current leader, and a total idiot. He only got the job because his dad (great gatsby the 5th) was the last leader and had stated that his son should take his place when he died. Luckily he had no actual power, the board of underlings handled everything for him. So he was basically just a figurehead now.

¨lets go to class¨ I said as I took trapezius´ hand ¨don't want to be late again" so we turned and went to class.

As I walked through the classroom door I handed in my latest research paper along with everyone else and took my seat at the back of the class.

The lesson was the same as ever, all class we just sat quietly with our tablets and sent out new drones to scope out the nearby galaxies in search of a Goldilocks Planet. I knew we would never find one, we have been looking for the past 8 years and haven't found anything close to

what we need. So I decided to do something a little crazy. In my last research report I posed the idea of creating a new planet instead of looking for an old one. I wasn't sure if my professor would be angry or overjoyed.



After 3 hours of searching other galaxies it was finally time for lunch, so I picked up my backpack and walked to the door.

¨Smeagol, can i speak to you for a second?¨ my heart sank, whenever my professor asked to talk to me it was normally because I did something wrong.

¨I really loved your research paper¨ I let out a breath I hadn't known I was holding.

¨It was very insightful¨

¨Really?¨

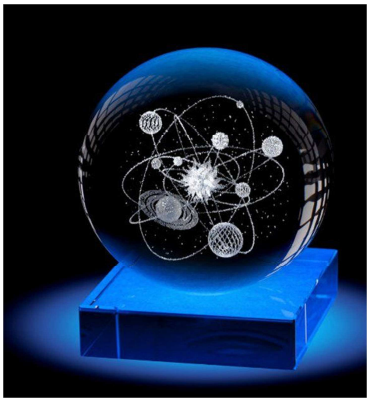
¨Yes, in fact I think it might actually work. I am putting you in charge of creating a new planet, I fit works that will be our new home¨

¨thank you so much¨

But as I left I began to realize that this was going to be ridiculously hard and I'd better get started right away. So the next morning I got up early and went straight to the lab.

Chapter 2

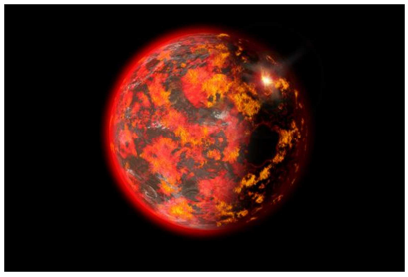
The entire building was dark when I got there, but that wasn't surprising; after all it was 5:30 am. I walked into an empty office and began to make a list of all the necessary components: Early Earth's atmosphere had to consist of water vapor, Carbon dioxide, Carbon monoxide, Hydrogen, Nitrogen, Ammonia, Methane.

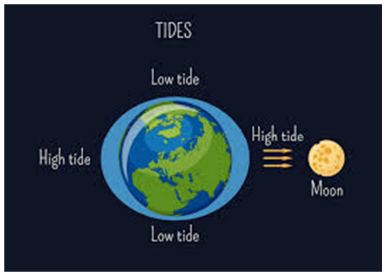


But as I ran the simulator I realized that I couldn't just layer everything on top of eachother and hope it would work out, I had to form a dust cloud and let everything form naturally so that it would match the process of other planets. So I gathered up materials from an old star explosion and started over. The model that I was planning to create was about the size of a basketball; I did this for 2 reasons, so that I could work on it more efficiently, and so that all the processes that had to happen could be accelerated, because the

smaller something is, the faster it progresses through the stages of formation.

So I added all the necessary elements and a gravity center for all the elements to gravitate towards. No oxygen would be present in early Earth's atmosphere, but I added a little to speed up the creation of the atmosphere. I needed a way to control tides, so I added a moon and it didn't hurt that it would also make the scenery better. The moon is orbiting the earth because of gravity, but the gravitational pull of both aren't the strongest so the moon is always drifting farther away. Some of the effects of the moon are that it helped slow down the rotation of earth and created movement in the ocean in the form of tides. The moon's rotation also changed so that the same side is always facing the earth.





After having the base down I started designing the outer atmosphere, it would need; I would have to add carbon dioxide, with little

or no oxygen. There were smaller proportions of water vapour, ammonia and methane. So that as the Earth cooled down, most of the water vapour would condense and form oceans. Once that was done I would have to decide what I wanted the face of the planet to look like. I envisioned a large open expanse of trees, hills, and oceans.

In order to create water and life, what I had to do was wait and let the gravity I created attract some manufactured meteors near Earth so they would crash down on Earth's surface. The meteors contained tiny crystals inside of them that contained water. As more and more meteors crashed down on Earth, they released the water contained inside of them. That created the oceans on Earth, which is one of the main building blocks of life. After giving the planet all of the essentials to life, it will just have to wait for the plants and wildlife to form. Obviously that would take too long, we needed to move planets soon. So the solution was to use our advanced technology to speed up time outside of our planet. By the next day wildlife would be roaming on Earth.

Chapter 3

The next day I arrived at the lab and the animals and plants had fully evolved on earth! The progression of life happened quicker than I thought it would, usually life takes about 800 million years, for earth it only took 600 million, but because the simulator was sped up it only took 12 hours. I created a side view camera from the surface of the planet to see what was there. It was a beautiful oasis of trees and flowers, oceans and lakes, and animals. There was one mass of land that was rather large. The way this large piece of land broke up was because of the tectonic plates under the earth surface. They moved around creating mountains and broke up the land.

Chapter 4

Now that the earth was flourishing with wildlife, water, and plants, there was only one thing left to do. We had to kill off the dinosaurs that roamed the Earth. The reason why we needed to get rid of them was because they were far too dangerous. We could not be walking the Earth alongside dinosaurs. It would just be too dangerous. Luckily there was already a huge meteor heading towards earth. After the meteor hit earth all dinosaurs were diminished.

Epilogue

It's been a few weeks now. We used a time machine to speed up the process of earth recovering from the meteorite. We used a growth device to let the earth become the size of any other planet, this way it would be possible to live on it in the future. There is abundant wildlife and plants are thriving. The moon is slowly drifting away from Earth because the gravitational pull isn't strong enough. The moon will move around 1.5 inches per year. So, both earth and the moon are doing great. Now all we must do is move to earth. In the future, we plan to continue living on earth but we will take care of it and make sure the same thing that happened to Mars does not

happen to Earth. In the meantime, we will try to restore mars to create another planet that living organisms can live on again. We will leave the Sun and Solar System untouched...

The End

Things We Used to Right the Story

BRAINSTORM

Details to include: red is stuff that we have already answered

- What was the genesis of the clouds of gas and dust?
- What events triggered collapse?
- How much of the system actually became our solar system?
- What is happening with the rest of it?
- What evidence is there that our star (the sun) is not the first star to exist in this region of space?
- Why do things rotate the way they do?
- How has the surface of the Earth changed in time?

Comment [1]: the clouds and dust were left over from the explosion of the star from the Big Bang.

Comment [2]: gravity

Comment [3]: After the Big Bang the dust, and rocks caused by the explosion were floating around. Some of the debris formed our planets 12 planets (Mercury, Venus, Earth, Mars, Ceres, Jupiter, Saturn, Uranus, Neptune, and Pluto) and their moons. These planets and moons make up our solar system. (and the sun)

Comment [4]: the rest of the debris is still floating in our universe. the debris can also create meteors.

Comment [5]: the sun has heavy elements that only form from exploding stars so it couldn't have formed them by itself

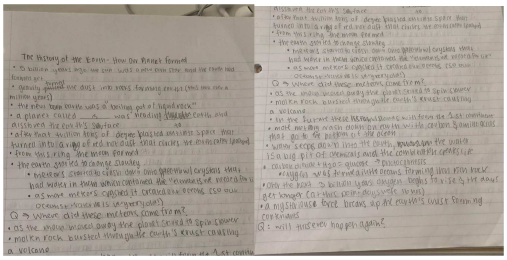
Comment [6]: Regardless of whether it spins clockwise or counterclockwise, everything in the universe moves and spins: From small asteroids to entire galaxies. Gravity, momentum, inertia ensure that bodies big and small act upon each other, causing everything to move and spin.

Comment [7]: also because atoms have spinning electrons

Comment [8]: The scientist Wegener suggested that "the rotation of the Earth caused the continents to shift towards and apart from each other." The continents lay on top of huge slabs of rock called tectonic plates that are always moving and interacting in a process called plate tectonics.

- How has the moon's orbit and rotation changed in time?
- What events cause meteors and comets to fall to Earth?
- What role did comets and meteors play in the past?
- What can we learn from comets and meteorites?
- What is the future of Earth, the moon, the Sun and the solar system as a whole?

Research



Story Outline

1. Prologue
    a. In another universe there were celestial beings that were researching science, and came upon a way to create a whole mini universe by having a capsule of empty nothingness and then using their powers they would create something and expand it very quickly. They made many minverses. The celestial beings made sure to supervise the growth of most miniverses, but ours was a bit neglected so that it took a while for life to actually form. When it did there were all sorts of creatures, but one of the least advanced creatures were humans. The celestial beings moved humans to a solar system that had formed around a medium sized star. The solar system had 12 planets and was near an asteroid belt so there was a good amount of resources. There was mars that could support life so they moved humans there so that they wouldn't disrupt other life.
2. Backstory
    a. 4.5 billion years ago we lived on mars, but we had used up almost all of our planet's resources. We realized too late that the planet was in danger. There were harmful toxins in the air that had been created during our stage of chemical warfare, water was polluted and animals were dying. There was no more food, all vegetation had died, we started running out of oxygen. This planet could not sustain us for much longer so we had to find a new home... my name is smeagol and this is the story of our new home.
3. Introduce characters on mars
    a. ¨So what's for breakfast?¨ I asked as I sat down to eat. but i already knew what it would be. The citizens of mars had been eating nothing but ration packets for the past 6 months.
    ¨Don´t play dumb" said my mother, ¨you know exactly what is it.¨
    ¨But i hate those stupid packets! They´re all the same! and they taste like mud¨ said my little sister as she walked in from the adjacent room, Motezuse wasn´t even 7 years old yet but had already adopted my hatred of packet food.
    ¨ok enough bickering, just eat or you´ll be late for school
    School for us wasn't like what you have now, all of our work was focussed on finding a solution for our planet's demise. It was hours of looking over charts and sending bots to try and find goldilocks planets in far off galaxies. It was tedious work, but it had to be done. So I hopped onto the hover train and stared out the window, watching the desert landscape fly by as the train wended its way to my school.
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    ¨noticed you weren't at the lecture yesterday.
    ¨ya I didn't feel good so i went home early.¨ It was a lie of course, I had ditched class right before the lecture.
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    As I walked through the classroom door I handed in my latest research paper along with everyone else and took my seat at the back of the class.
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    ¨It was very insightful¨
    ¨really?
    ¨yes, in fact i think it might actually work. I am putting you in charge of creating a new planet, i fit works that will be our new home¨
    ¨thank you so much¨
    But as I left I began to realize that this was going to be ridiculously hard and I'd better get started right away. So the next morning I got up early and went straight to the lab.
4. The process of creating earth (at least 1-2 pages on that making sure to include key details)

Comment [9]: Over time the Moon became tidally locked to the Earth. The gravity on earth has tidal effects on the moon that cause the moon's rotation period to slow down.

Comment [10]: When meteors are near Earth they are sometimes attracted to it and become a part of earth's gravity causing them to fall on earth.

Comment [11]: 3.9 billion years ago meteors attacked the earth. these meteors had crystals inside of them that contained water. This would be the first time earth had exposure to water. over millions of years these meteors attacked earth creating lots of water.

Comment [12]: we can learn that they are the reason that water exists on earth today. without them we would not be alive.

Comment [13]: We will continue living on earth but we will take care of it and make sure the same thing that happened to mars does not happen to earth. in the mean time we will try to restore mars to create another planet that living organisms can live on again. We will leave the Sun and Solar System untouched.

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So I added all the necessary elements and a gravity center for all the elements to gravitate towards. No oxygen would be present in early Earth's atmosphere, but I added some a little sooner to speed it up.
I needed a way to control tides, so I added a moon and it would also make the scenery better.

5. The outro - including pod, dinosaurs, and new life
    a. We were saved! The mission was a success and now we could live in prosperity for another million years. We would have to start over to rebuild everything we had lost, but at least we were safe... The End

Images