

How It Ends.

"Whichever one you want, Tessa. Fire, or ice."

Tessa gazed down on the barren rock that would soon be Earth. It was desolate, small, devoid of all life. This was the decision—the responsibility, her father Varin had given her. He had created this solar system just for her, to watch over, to care for. Now he was asking her to end it.

She looked up at him, hoping that she was mistaken, but her fathers eye told otherwise.

"Don't be sad Tessa," he assured her. "This is just a part of the process. All things come to an end." He looked over at the Earth. "All you have to do is decide how."

"How will I know which one to choose?" Tessa asked, not quite accepting that these were her only options.

Varin placed a comforting hand on her shoulder, "You'll know... you always do."

Tessa scanned across the solar system, clouds of dust formed into rocks, careening around the newly born sun, crashing into each other. A chaotic yet graceful dance. How could she destroy something so beautiful?

"Don't worry," said Varin. "I know this choice isn't easy, take all the time you need."

Tessa turned to him. "You mean it?"

Varin smiled. "I mean it."

Then Varin was gone, and Tessa was left alone with her solar system. She had a strange feeling inside of her, of dread, fear, hope, worry. She was scared of what would happen if she made the wrong choice. Fire? Or ice?

Many millions of years passed, and the thought still lingered in Tessa's mind. If she were to choose fire, the solar system would most likely go out in a tremendous and fiery blaze. Tessa found it a fitting end, for something as perfect as this solar system. It would be reduced to ash, gone in a blaze of passion and instantaneity, the same way in which it was born. Although, nothing would remain.

Ice on the other hand, could preserve, it would mean she could hold on to the system she loved so dearly, even just for a few billion years. But it wouldn't be her solar system that remained, just a ghost. A dead star, frozen planets; devoid of all that made it beautiful in the first place. Life.

She looked at her system again, by now there were 8 stable planets that had formed, and on the third she could see life. Tessa looked closer at the earth, underneath the sediment below the ocean she could see the cyanobacteria. They excited Tessa, as these single celled life forms would create the oxygen atmosphere around the planet that would support plants and animals billions of years from now. It was the first step in the journey of life for this planet.

It was odd, knowing the entire history and future of this solar system, she worried for the impending ice ages, asteroids, and climate changes, but the future assured her, life would persevere.

And the humans. Oh the humans. She didn't know where to start. She was incredibly excited to meet them, they were amazing in the ways they communicated, invented and discovered. However it pained her to know they would be around to see the end of the solar system, because she knew they would never reach beyond that.

Even with their rockets and space stations, even after colonising the other planets, the moons. It wouldn't be enough. Their horizon would be forever bound to these 8 planets and 268 moons.

Tessa wished she could help them. To extend a hand, to bring them beyond their own star. But that was beyond her own powers. The only thing she could do, the only thing she *would* do, is end it all.

By now it had been 3 billion years since Varin had left Tessa with that question. One she was yet to decide. Fire? Or ice? She pushed the question to the back of her mind. She still had time. Time to think, time to watch.

Tessa glanced down, the earth had just begun developing eukaryotes, cells with nuclei. Life was beginning to become more complex, and it thrilled her. But she was also terrified, the more life developed, the closer it came to its eventual extinction, brought about by her hands.

It was an event she was powerless to stop, there was no question of whether or not she will end all life in the solar system, it was merely a question of how. She didn't want to do this. She loved life, all kinds of it.

The thought of ending it all made her sick. but it had to be done.

Tessa wallowed in pity for another billion years. In that time, life had developed on a few moons around what would soon be called Saturn and Jupiter, but they didn't interest her. Those organisms would never be discovered, they would die off hundreds of millions of years before humans came looking, with no trace of them ever being there in the first place.

She wondered, if they were never to be found, what was the point? Did their existence have any impact on the solar system whatsoever? It reminded her of a question one human would come up with: "If a tree falls in a forest, and no one is around to hear it, does it make a sound?"

She thought for a moment, if she is to end the solar system in 9 billion years, would *anything* matter? Even humanity—by far the grandest species of this solar system—will never reach another star. No matter how hard they will try. Every vessel that might make it will be systematically reduced to dust, meaning the end of the solar system would equate to the end of the entire human race.

Tessa looked around the solar system, everything that has and will ever exist in this place will amount to nothing. Pointless. She looked over at Jupiter's moon, at the organisms that lived under the ice. What was the point of them? What would they achieve?

She pulled her focus back to the moon's surface, the icy terrain scarred with red streaks of salt. Upon gazing at the intricacies of the ice she noticed a section of a ridge break off, the piece of ice tumbling down the side, crashing into the surface and splitting into several shards.

This further deepened her sorrow. These beautiful facets of life would never be seen, even this simple occurrence would have once made her smile, but no one saw this, it would go unappreciated, the solar system would end without anyone knowing what just happened here.

For a thousand years Tessa stared at the ice that lay at the bottom of the ridge. The ice melted and absorbed itself back into the surface. And Tessa realised that it was gone, that cascade was over. Nothing remained of it except...

Except her memory of it.

Tessa only now comprehended that she had or will have witnessed every event of this solar system's history.

Everything significant and insignificant, every life, every death, every action, every reaction, all of this, she will have observed. Not a single thing in this solar system will truly amount to nothing, because of everything that would be destroyed at the end of the solar system, Tessa will remain.

If a tree did fall in a forest, *she* would hear it. Those organisms that grew on those moons, they meant something to *her*. Everything that happened in this solar system, she experienced.

It would not be pointless, because she was there to see it.

Tessa smiled. she understood now.

"So what'll it be Tessa?" Varin asked, "Fire? Or ice?"