

## **Informative Speech Planning Activity**

General Purpose: To Inform

Specific Purpose: Inform audience about the strangest anomalies and cosmic scale of the universe. As well as some of the most fascinating theories

Central Idea: The universe is one of the most underappreciated things in society. Seeing past our daily lives to the true cosmic scale is humbling

Pattern of Organization: Topical Pattern organized by concepts and fascinating information regarded those concepts

### **I. Introduction**

*Each element should be written in full sentences.*

- A. Attention Getter- When's the last time you have looked up at the sky on a clear night?
- B. Relevance- The universe is the greatest mystery we have ever been met with
- C. Credibility- I've spent a couple years reading here and there paired with occasional conversations to attempt to comprehend the scale of the universe
- D. Thesis- Our universe is one of the most humbling inspiring yet one of the most underappreciated beauties in reality
- E. Preview- Today I am going to discuss some of the most fascinating discoveries in the last century that bring us closer to uncovering our beginning

### **II. Body**

- A. General Relativity -

- a. Predicted the existence of black holes, which according to a essay written by Dunbar B from nasa in 2015(I) "A black hole is a place in space where gravity pulls so much that even light can not get out"
- b. According to in a article by Vitz Ed in libretext from October 15th 2019 "The Schwarzschild radius is the "point of no return" - once you get closer to the black hole than that, you can never escape"
- c. If earth became a black hole it would be 2cm across

*(Transition To appreciate the true beauty of our universe we need to comprehend the of it scale)*

#### B. Cosmic Scale -

- a. The speed of light is 180,00 miles per second, fast enough to travel around the entire globe 6 times in less than a second
  - i. From this it takes 8 minutes to travel towards our sun around 96 million miles away.
  - ii. For light to reach the nearest star to us it would take 4 years going 180,000 miles per second.
- b. Our galaxy is around 50,000 light years across According to an article from nasa by Maggie Masetti on July 22, 2015 "our galaxy contains about 100-400 billion stars"
  - i. It would take you 20,000 thousand years counting 4 numbers a second to reach 200 billion
- c. According to an essay by Brooke, L from Physics news in 2017 (IV) "Our universe contains about 2 trillion galaxies".

- d. This is trillion a galaxies not a billion with each containing around 200 billion stars

*(Transition Next I will discuss how our perception of the world is far too limiting)*

#### C. Dimensions-

- a. String theory estimates our universe contains 11 dimensions.
  - i. If you want a really difficult mind puzzle try imagining more spacial dimensions that exist.
  - ii. It's partly where our own senses break down and limit us
- b. String theory is a concept that associates the primitive building block of everything to be small strings vibrating.
  - i. These vibrating strings and control the type of particle depending on their vibration.
  - ii. Myers, J. D. (2017, March 8) “In string theory, there are no elementary particles (like electrons or quarks), but pieces of vibrating strings”
- c. Some believe that different vibrating strings come from the strings entering 6 dimensional pockets that never expanded in the big bang due to lacking energy.

#### D. Multiverse-

- a. Our universe is one of many floating around in a ball pit
- b. Each universe may be infinite demonstrating a infinite line of possible versions of our own reality

### III. Conclusion

- A. Restatement of Thesis: Our universe is one of the most underappreciated sources for inspiration
- B. Summary of Main Points: Outer space contains some of the most mind boggling and abstract features that control what we perceive. From the size of galaxies to the mystery of time to the reason for our own beginning.
- C. Tied to Intro: Just barely scratching the surface of what outer space contains has brought an entirely different perspective to some of the daily turmoils of life.
- D. Concluding Statement/Call to Action: I hope I have sparked some curiosity in you about our own existence. Maybe one day when you lying in bed after a long day you will toy with the endless creativity life has gifted us

## References:

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