### I. Introduction

- A. Look up
- B. Universe, Mystery
- C. Year reading
- D. Inspiration, Beauty
- E. Discuss: Theories

#### II. Body

- A. General Relativity
  - 1. Light Speed
  - 2. Black Holes (Dunbar B from Nasa in May 2015 "Light cannot Escape")
    - a. No Escape (Vitz Ed in libretext from October 15th 2019 "Radius")
    - b. Earth 2 cm Diameter
    - c. Bends inward

# **Transition:**

- B. Cosmic Scale
  - 1. 180,000 miles per sec
    - a. Around Earth: To Sun: To other Star
    - b. Galaxy Size: (Maggie Masetti Nasa July 22, 2015 "about 100-400 billion stars")
    - c. Galaxies in Universe (Brooke, L from Physics news in Jan 2017 "2 Trillion")

### **Transition:**

- C. Dimensions
  - 1. 11 Dimensions
    - a. String Theory (Myers, J. D. 2017, March 8 "No elementary particles)
    - b. Vibrating Strings
    - c. 6D effect on Strings
  - 2. Simulation?
    - a. Solved Equation
    - b. James Gates: Equations: Graphed binary

#### **Transition:**

- D. Multiverse
  - 1. Ball pit
  - 2. Infinite Universes

## **Transition:**

- III. Conclusion
  - A. Look up: Inspirational
  - B. Abstract Beauty
  - C. Spiritual?: Relaxing
  - D. Sparked Curiosity: Lying down