

Name: Pierce Jackson

Topic: Space Exploration is Important

General Purpose: To persuade

Specific Purpose: To convince the audience that space exploration is important.

Thesis: Space exploration is an important endeavor that humans need to take part in.

Claim of: Fact

Objective: Passive Agreement

Introduction

- I. “Earth is the cradle of humanity, but one cannot live in a cradle forever.” –Konstantin Tsiolkovsky
 - A. Humans are an entire species living on one tiny spec in a vast, ever-expanding ocean of discovery, with space exploration being our medium of uncovering the mysteries of that vast ocean.
- II. I am credible to speak because I have done thorough research on this topic.
- III. Today I’m going to persuade you that space exploration is an important endeavor that humans need to take part in.
 - A. First, I will discuss the benefits of it.
 - B. Second, I will provide the counterarguments that it is too expensive and that humans need to deal with issues on Earth first, the refute them.

Transition: To begin, I will discuss the ways that space exploration is beneficial.

Body

- I. The first reason space exploration is important is that it is beneficial.
 - A. *(According to NASA’s chief scientist Waleed Abdalati in the CNN Lightyears blog post: “Exploring Space: Why’s it so Important?”) He claims that NASA has been beneficial to humans and will continue to set breakthroughs in technology (Adamu, 2012).*

1. For example, the pursuit of space exploration has led to the creation of several technologies that are commonly used today.
 2. Some examples being: MRIs, CT scans, info storage technology that is used in cell phones and hospitals, communications like GPS, advanced water filtration systems... the list goes on (*Adamu, 2012*).
- B. Another benefit, (*According to NASA's article: Why We Explore*) is that "Human space exploration helps to address fundamental questions about our place in the Universe and the history of our solar system" (*Wiles, 2013*)
1. This is the core reason that humans explore.
 1. I believe it is safe to say that all of us in this room believe education and learning is important, or else we wouldn't be attending college.
 2. Space exploration itself is education. Through exploration, we discover the truths and unveil the mysteries of the universe. We, as humans, become more educated beings and from there can become more advanced and ultimately lead better lives.
 2. (*According to that same article*), "Through addressing the challenges related to human space exploration we expand technology, create new industries, and help foster a peaceful connection with other nations" (*Wiles, 2013*).
- C. The third benefit is that space exploration will preserve the human race.
1. (*As quoted in the National Geographic interview with the astronaut, Buzz Aldrin*), "We are stagnating on Earth. We are reverting to the past. We are not pioneering. We are not looking forward. And if we do not explore, we will expire" (*Aldrin, 2016*)
 2. It may not seem like a major risk, but the Earth is constantly under threat of being hit by large space objects.
 1. Take the Chelyabinsk Event in 2013. A meteor caused by a near-Earth asteroid that entered Earth's atmosphere over Russia.

- a. About 1,500 people sought medical attention because of this event and most the meteor didn't even hit the ground. It disintegrated in the atmosphere.
2. I'm sure many of you have heard the quote by Larry Niven, "The dinosaurs became extinct because they didn't have a space program.
3. Exploring space will allow for human's self-preservation by allowing us to understand our surrounding environment and the possible threats to Earth, and even expand human presence to other planets... Say Mars for example (wink, wink, nudge, nudge).

Transition: Now that I have covered the benefits of space exploration, I will provide a counterargument and then refute it.

II. Many people believe that a space program in general is not necessary and is too expensive.

A. *(As stated in the Opposing Viewpoints article: Space Exploration)*, "The main arguments against [space] programs [are] that they do not offer any benefits to average citizens, and that the money would be better spent on Earth-based efforts to improve the nation" (*Opposing Viewpoints, 2015*).

1. Since I just described the benefits of space exploration, I will focus on the 2 other arguments mentioned. First that money used for space programs can be better spent.
2. Basically, people think that space is too expensive and their tax money shouldn't go towards funding a space program.

1. *(As reported by Forbes)*, however, NASA's budget has been about $\frac{1}{2}$ a percent of the total federal budget in recent years (*Stratfor, 2015*).

- a. And only 20% of that is allocated to space exploration.

2. Comparing these numbers, the Department of Defense receives about 36 times the funding of NASA (*Adamu, 2012*).

- B. The other argument mentioned is that other issues on Earth should be dealt with first, before space exploration.
1. The logical answer to this argument is that there have always been and always will be other issues to deal with first.
 1. There will never be a time where every other issue on Earth has been dealt with. As confirmed by history, for example, there will almost always be war and controversy somewhere in the world.
 - a. There will never be a “perfect moment” to explore space, so under this argument, one can conclude that space exploration should never be attempted.
 2. A prime example for countering this argument is the Apollo program:
 - a. *(Mentioned in “The Importance of Space Exploration” by NASA’s Chief Historian, Steven J. Dick), “Great things were achieved in the past in the name of competition – the Apollo Program would never have happened without Cold War competition. It now remains to be seen whether great things may be done in the name of international cooperation, even in the midst of great unrest in the world” (Dick 2, 2007).*

Transition: Since I have now provided you with counterarguments and refuted them, I will review what I have shared with you.

Conclusion

- I. Today, I have persuaded you that space exploration is important.
 - A. I first described the benefits of space exploration.
 - B. I provided counterarguments to space exploration and refuted them.
- II. I hope that now you all see why space exploration is not a waste, but is in fact a very important human endeavor.

References

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