Sample Student B

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Exploratory Nature

For as long as mankind has kept a history of its records, one can see humans have always yearned to explore. Whether it was the Nordic Vikings setting off to explore the seas, Christopher Columbus sailing for new lands, or Lewis and Clark blazing trails to the west, mankind has continually tried to push its boundaries and expand its frontiers. It would seem the call of adventure and discovery is something ingrained in human nature itself. Yet, as of late, this nature of exploration has been suppressed. Ever since the final frontiers of our earthly exploration were reached, and our maps of the "unknown" were finally filled in, man’s pushing of boundaries has seemed to become stagnant. In this day and age, the new frontier for exploration lies in the next level of the unknown: space. Today's "Christopher Columbus" is Yuri Gagarin, the modern "Lewis and Clark" is Aldrin and Armstrong. Yet, instead of encouraging this new field of discovery as was always done in the past, today we find funding for space programs reduced and in some cases completely discontinued. Is this the way man’s exploration and innovation should be treated? Certainly not. Therefore, despite the protests of the opposition, funding for space programs must not be cut, as this would hinder mankind's advancement, survival, and exploratory nature.

Now many pundits may claim that funding ventures into space is futile, or even counterproductive. Critics of such exploits often ask why nations pour billions of dollars into space programs that have a seemingly null effect on the majority of the population, all the while while millions of people on this earth still struggle for basic needs like food and shelter. Other issues as well, such as war, crime, and poor education, all seem like problems that could be alleviated with economic funding. Some may ask: Why spend money on astronauts and satellites when we could be fixing our problems down here on Earth? It often seems that the benefits of funding ventures here at home will be of more importance and have a larger impact on people than those that occur millions of miles away, and are only heard of in research papers. If such costly exploits have so little helpful results, and unfunded exploits exist that would provide immediate helpful outcomes, why do governments continue to support such unprofitable organizations? Should we not invest in these endeavors first before looking at outward exploration? It is often for reasons like these that funding from such programs is removed in the first place; in 2013, NASA's Planetary Science division is planned to have their budget cut by 20 percent (FoxNews.com). Perhaps making cuts like this is for the better of society, allowing more money to be spent on these other crucial matters.

However, the truth of the matter is that the practical benefits of space travel far outweigh the costs. For example, many medicines and drugs have been created and tested in the zero-gravity of space. One such test done aboard the International Space Station was conducted to try a new form of cancer treatment delivery, an experiment that provided, "better drug delivery and new medical treatments for solid tumors and resistant infections" ("Cancer Treatment Delivery"). Developments such as this can provide direct help for doctors on Earth. NASA’s space program provides new possibilities for experimentation. Another benefit from space travel lies in the excess of natural resources to be found in space. The cosmos are abundant in natural resources; each planet boasts its own multitude of minerals and chemicals just like the earth. Gold, iron, diamond, all such materials can be found throughout the universe on anything from distant planets, to drifting asteroids. Not only can minerals rare on earth be found plentiful on other planets, but some even contain minerals completely unknown to us, with their own properties and potential uses yet to be discovered. Many nations and companies are realizing the potential for this en-devour as well, with companies like *Planetary Resources* jumping on the gold-rush early. *Planetary Resources*, a newly founded asteroid mining company, states in their mission plan that, "Asteroids are filled with precious resources, everything from water to platinum. Harnessing valuable minerals from a practically infinite source will provide stability on Earth, increase humanity's prosperity, and help establish and maintain human presence in space." With major businesses and corporations looking into extra-planetary resources, perhaps the practicality of space mining isn't quite so far-fetched.

Another advantage of space exploration, one that is often overlooked, is the further survival of mankind. Here on earth, despite the illusion of comfort and safety that surrounds everyday life, man's survival is still not assured. In fact, as of now, our species is still in a state of severe vulnerability. Everything from viruses, to nuclear bombs, to super-volcanoes pose a threat to man’s survival, and as we continue to expand, populate, and advance our technology, the potential for our own destruction becomes more apparent than ever. Recently, scientists discovered exactly how common life-threatening asteroids are in space. According to recent observations from NASA's Wide-field Infrared Survey Explorer (WISE), there are likely 4,700 potentially hazardous asteroids (PHA's), that are larger than 330 feet (100 meters) wide and in orbits that could bring them close enough to Earth to pose a concern ("Potentially Dangerous Asteroids"). Even the principal investigator of WISE's asteroid-hunting mission, Amy Mainzereven, stated "Our team was surprised to find the overabundance of low-inclination PHAs.” One can not only see just how little we know about the potential dangers our species faces, especially those from beyond our world, but we must now realize how vulnerable our species is on this rock, hurtling through the cosmos. Therefore, if we are to assure our continued survival in this increasingly dangerous universe, it is necessary that we adapt and expand our existence. Not only could space exploration and development aid us in studying, and possibly preventing PHA impacts, but the possible colonization of other planets could save us from other dangers like over population and resource limitation as well. These and many other dangers to human survival might all be solved through man's extraterrestrial ventures.

Finally, if there is one reason we can be sure of as to why man should continue discovering the cosmos, one reason to not become content with stagnation, it is so that man’s natural inclination for exploration not be hindered. In 1979, author James A. Michener commented on NASA's abandonment of the Moon flights that, "We risk great peril if we kill off this spirit of adventure…and one of the most effective ways to retain that thrust is to keep exploring possibilities. The sense of exploration is intimately bound up with human resolve, and for a nation to believe that it is still committed to a forward motion is to ensure its continuance" (qtd. in Sisk). Michener's insight from three decades ago still rings true today; exploration is a natural part of mankind's resolve. If mankind wants to maintain that resolve for “forward motion,” he should support it and ensure that resolve stays strong. If we take his advice thirty years ago toward the “nation” and apply it now to mankind in general, one can see the importance of supporting this initiative even more. Michael Collins, one of the three men on the Apollo 11 mission, observed that, “It's human nature to stretch, to go, to see, to understand. Exploration is not a choice, really; it's an imperative” (qtd. in "New Mexico Museum of Space History"). As one of the "Christopher Columbus" of our times, perhaps his opinion should be respected more than any. Man will always strive to explore and discover that which is unknown, an inclination both beneficial to, and definitive of mankind. Therefore humanity should never hold itself back from that which makes it human, and should always strive to support itself.

Space exploration will always be one of man’s greatest ventures. Throughout all of

human history, never has man taken on a more vast, dangerous, and unknown task as leaving the world behind, and seeing firsthand what's out there in the universe. Our species depends on this new adventure, in a variety of ways. Yet in the end, all that matters is that we never give up on this venture; we must not fall away from such goals for petty reasons. If we, as a whole people, are to maintain the "forward motion" that has maintained us throughout our history, we should fund and support such expeditions. If we are ever to set off into this new world, be it for resources, protection, or mere curiosity, we must have the full support of everyone back on earth. Man will never be able to reach such goals if they are looked down upon and considered less important. Unless one wishes to see man fall away from what the future could be, and possibly destroy mankind's chances of long term survival, this, of all ventures, should be supported at all costs. If Christopher Columbus or Lewis and Clark could see the world now, they would be amazed at how far we've come. Yet even so, one can rest assured that they would urge us to do everything in our power to keep that dream of adventure and discovery alive.

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