

Interstellar Travel Research Paper

In a 2 - 3 page essay answer the following question:

How viable is interstellar travel? What legitimate options do we have for traveling to other solar systems, and how do they work?

Interstellar travel is cornerstone of much science fiction film and literature. The thought of traveling out beyond the reaches of our solar and into the great Unknown beyond has captivated the imagination since we first learned that the Universe extended far beyond what our naked eyes could see. The future of humanity is in the stars. If we wanted it badly enough, interstellar travel could be achievable within our lifetime. So what would it take to build a starship?

Pick two of the following options for interstellar travel to research. Investigate how they work and what advancements still need to be made to achieve them, and evaluate the pros and cons of the options you pick. Also, how do they or do they not deal with the issues of distance, travel time, and weight that all rockets need to address?

1. Rocket fuel (this is, honestly, a non-starter, but it may be interesting to explore what ridiculous lengths you'd have to go to to make it work. Researching the debilitating shortcomings of rocket fuel may help you understand the nature of the problem of interstellar travel)
2. Fusion (option includes building a fusion reactor or just exploding nukes out the back of spaceship)
3. Antimatter Drive (utilizing matter-antimatter annihilation)
4. Light Sail (an enormous sail riding the beam of a gigantic space laser)
5. Blackhole Drive (a device run on a Schwarzschild Kugelblitz)

Layout:

Your research paper should be written in three sections. These can be organized explicitly, with sub-headings, or organized more implicitly. The sections are:

I. What I Know, Assume, or Imagine

II. The Search

III. What I Discovered

What I Know, Assume, or Imagine:

Before conducting any formal research, write a section in which you explain to the reader what you think you know, what you assume or what you imagine about the topic. What do you think the answer to the research question is and why?

The Search:

Test your knowledge, assumptions or conjectures by researching your paper topic thoroughly. Conduct first-hand activities like writing letters, making telephone calls, initiating face to face interviews, and going on field trips. Also, consult useful secondhand sources such as books, magazines, newspapers, films, tapes, electronic sources, and so on. Be sure to record all the information you gather. You might want to do some of the following: arrange an interview with an expert such as a university professor or JPL employee, as well as check out a book on the subject, read several pertinent articles, or see a film. Write your search up in a narrative form, relating the steps of the discovery process. Do not feel obligated to tell

everything, but highlight the happenings and facts you uncovered that were crucial to your hunt and contributed to your understanding of information using documentation when appropriate.

What I Discovered:

After concluding your search, compare what you thought you knew, assumed, or imagined with what you actually discovered; assess your overall learning experience; and offer some personal commentary about the value of your discoveries and/or draw some conclusions. The results may surprise you.

Documentation:

Your paper must include a bibliography with at least three separate sources. No points will be awarded to essays without a bibliography. MLA format.

Format:

2 - 3 pages + bibliography, 12 pt font, Times New Roman, double-spaced, 1" margins