

Dark Energy Research Paper

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

What is dark energy?

Gravity can only pull — as far as we know, there is no such thing as repulsive gravity. As such, one might expect that on a long enough timeline all the galaxies in the Universe will get closer and closer to each other until they collapse together. However, the opposite appears to be true — the galaxies are all getting further away from each other and doing so at an ever-increasing rate! the energy responsible for this expansion has been dubbed *dark energy* (not to be confused with dark matter). It's called “dark” because so little is currently understood about it, yet much progress has been made over the past decades in the pursuit of understanding. Your task to research what we've learned so far and where we're still left in the dark.

In exploring this question, investigate the following:

What are the qualities/properties of dark energy?

What are some theories for what dark energy actually is? Where are these theories strong and where are they weak?

What else would we still need to find out in order to understand the nature of dark energy? What are the next steps in researching its properties?

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