

3rd period

114790

Extraordinary formatting – really a pleasure to see even just as a work of graphic design. The classic typewriter font, choice of colors, 40's era design – all add up to a stunning presentation. The content is fresh, reveals mastery of the topic, and weaves the entire work into a coherent whole. Looking forward to sharing this with my colleagues.

114944

Very nice model of San Francisco with a series of transparent slides that allow the observer to replicate different (historical) nuclear weapon detonations and observe the effects on our city. Thoughtful and competent essay portion.

115091

Well-researched and thoughtful calculation of the total number of people who would be killed in a massive nuclear exchange. Relies on estimates of population density and makes separate calculations for the number killed in the fireball and the number killed by radioactive fallout. Really an impressive piece of work.

115092

I am confused by the text on the neutron bomb – these are often known as enhanced radiation weapons but several times in the text you refer to their lower radiation intensity. A discussion of large-scale 'terraforming' experiments is incomplete without reference to the controversial proposals of (father of the hydrogen bomb) Edward Teller. The final reflection is a statement of personal belief but needs to be supported & enhanced by original research. So I think there is room for growth in the research parts of this paper. The content portion as assigned is good, but the higher grade will involve renewed effort (see me for help with this).

114864

Nice, creative formatting. Good work weaving in the guiding questions throughout.

Some might take issue with the first line regarding the original goal of creating nuclear devices – the physicists who worked on the Manhattan Project (in my limited readings) reported a desire to race *Hitler* to these bombs, for use in the European theatre of World War II. A second question: was there a threat to humanity from nuclear weapons before the terrorist threat? Consider Einstein's work on these political issues.

Higher grade will involve original research leading to a new idea. Let's discuss.

114981

Fun analogies for basic ideas. Ends prematurely – proofreading issue? Good job hitting the 10 parts on the website – the next step is to weave these into something compelling and new.

115099

The final portion of the essay does weave together the whole, but I think needs some more work to make it into an *original* contribution to the study of nuclear war. For this, I advise working in some new research – has anybody in history proposed the work & organizations you are proposing? I can point you to some good resources.

114813

Guiding questions woven in at the start and at the end of the work. I'd like to push you to do some original research – see me for suggestions.

115116

Particularly well written. Guiding questions woven in very well. Theme of 'MAD: Why it's good to be scared' including original research (Nash Equilibrium, etc.). A defense of a large nuclear arsenal is hard to pull off – yours was consistent though. For instance, a proponent of MAD is often led (as in your discussion of Iran's situation) to a conclusion that *all* states should be in possession of nuclear weapons.

This is a well-argued thesis and paper. I'm only holding off on the highest grade because I'd like to encourage you to come back to the possibility of *accidental* nuclear war and how this is made more severe by large MAD-oriented arsenals – consider, for instance, the case of Stanislav Petrov.

115104

Guiding questions appended at the start of the work. I'd like to push you to do some original research and some recrafting of the project as assigned – see me for suggestions. Meets requirements of assignment.

114900

Love 'fusion as modern alchemy' theme. Well done, and a great tool for organizing the whole thing. I'm confused by capturing the energy of the underwater explosion – is there some reason to believe this might be more effective in producing recoverable power than a typical fission reactor? Would push you to do some research into this question.

114793

Great original research on 'how to survive an atomic bomb'. The next step would be to turn this visually into something that would actually be read by those folks who would need it. In other words – should an attack occur, I'm not going to run and look up my former student's essay, but instead grab a _____ (pamphlet? handbook? ...)

114962

None submitted.

114966

Pending resubmission – technical issue.

114938

The essay includes all the basic parts required by the assignment. There is also an overarching theme of a reflective questioning of the ethics/morality of nuclear war. However, this theme is often in contradiction – moving from one opinion to a radically different one. Initially, the concern I had was: if everybody gets to decide for themselves whether detonating a nuclear device will 'save lives' then where are we? I'm sure both sides in a conflict believe they are acting for the right reasons (saving lives) by attacking the other. But then near the end this philosophy had been totally inverted. So I think this needs something more than a reflective component to hold it together.

114876

Attacks the basic parts of the assignment (as required). One comment – it was not a hydrogen bomb dropped on Hiroshima!

114967

Additional work looks at the effects of testing underground, above ground, and in the water. The effects of testing should include *political effects* – these are the most debated these days (I would argue that the world has likely achieved consensus on above-ground and in-water testing.) I want to push you to do some more research on this issue, so for instance the idea of testing w/o "testing" – check out http://en.wikipedia.org/wiki/Stockpile_stewardship ... I also think work of this kind should include discussion of the proposed Comprehensive Test Ban treaty, to make it more topical.

114964

Formatting & appearance isn't up to standard of junior English. Needs to be proofread (numerous typos). I like & appreciate the choice of research into one of our famous test site craters. I'm not sure there is much new there one couldn't get from http://en.wikipedia.org/wiki/Sedan_%28nuclear_test%29

114952

Basic requirements of project completed. One thought regarding part 10: who decides upon 'eligibility'? That is, if another country decides the US is not eligible to have nuclear weapons, are they within their rights to drop a 'lil one' on our facilities (for instance, the nuclear testing facilities at Lawrence Lab in Livermore?) Argument as presented doesn't take into account the complexity of the political situation, and so can't further the discussion.

115122

Love that you took the initiative to go and find the 'scar mark' or carter from the Tsar Bomba. Great, creative idea. Am looking forward to future images and perhaps some more research leading to confirmation that what you have in the image is (or isn't) from the explosion. For that reason I'll hold off on the highest grade to see if we can get some finality to this.

114868

Prepared as PowerPoint document. Weaves the different tasks into a coherent presentation. Presentation is text-heavy (might be more appropriate in a Word document – that is, is the use of PowerPoint justified by the difference in features PP provides compared to Word?)

114997

Complete report. Rather than woven throughout, guiding questions are included separately at end. New idea is not sufficiently researched to qualify as an addition to our body of understanding of nuclear war.

114796

None submitted.

114955

Fantastic project – well written, great presentation, fantastic new idea with regards to the use of toroidal magnetic fields to contain fusion (so-called Tokamaks) ... Love the theme of a letter written from the 23rd century after nuclear weapons have been abolished. Great job, obviously a thoughtful and well-researched mindset.

6th period

115009

Very nicely formatted & put together. Good original research on the effects on humans of radioactive fallout.

114908

Nicely organized tables. Good new idea but needs to be explored with original research: yes, in a thermonuclear bomb hydrogen is fused into helium – that's the main reason they explode! But I think your question might be: are any other elements fused? Can we see them in the spectra of the explosion? This is a good idea but just needs to be substantially fleshed out. I can help.

114953

Parts I – X submitted per instructions on website. Higher grades can come from original research / reformatting.

114806

Well-written and organized project. Original idea consists of short science fiction story regarding South Africa and the bomb. This is a very delicate subject given the history of the region and peoples, and at times the story fails to exhibit proper nuance (for instance, the use of the word 'the' in the first sentence throws an entire category of people into a single political party –somewhat dehumanizing and historically unlikely given that this is supposed to be an *African* news report). Some of the writing needs to be tightened up ("there is no fact on what effect" ...) Reads like a first draft. Is the material on South Africa's nuclear history sourced/referenced – it is something I *am* curious about.

114101

Good work on parts I – X. Additional work on the use of nuclear power in submarines and perhaps other vehicles (cars). This work doesn't represent a particularly substantial body of new work: I'm not sure I have learned anything new about the possibility of including nuclear reactors in cars. A higher grade is possible with a deeper discussion of this issue.

114996

Seems like there's some nice original illustrations in here. New theoretical discussion of the creation of artificial stars – especially compelling for the idea (a new one to me!) of finding dim stars with planets and 'buffing' the star so that the planets can become habitable. Nice work. Higher grade possible by fleshing out the most fruitful of these ideas (perhaps the Dyson sphere and the manufacture of improved habitability through creation of artificial stars).

115101

Compelling new ideas about using magnetic fields to control fusion, but would like to see these fleshed out originally. (That is, what can you say about these that I can't get from a simple search on Wikipedia.) This research can be creative – maybe a new reason to do this, but something beyond an internet search

114774

Very nice guiding theme on history and ethics of nuclear war. New idea of requiring those charged with the delivery and politics of nuclear weapons to take ethics/morality classes that look at these issues directly. The next step is to consider and deal with arguments in *opposition* to such a class. That is, to build in to your argument consideration of opposing views.

114912

Good combination of the different parts into three main units. Great new idea of figuring out how the explosive power of the Minutemen arsenal could be used to power San Francisco, including a spreadsheet calculation. Would like to see you explain the calculations in more detail (for instance, the conversions between kilotons and KW or KW-hours. Walk the reader through this calculation and you've got something very good.

114909

Parts I – X submitted per instructions on website. Higher grades can come from original research / recasting the material in a new way.

114449

Case study on North Korea, with a history of developments in the country's nuclear ambitions. I want to push you to contribute an original take on this issue – what suggestions do you have to resolve the political situation, what has worked & what has not (and why), etc.?

115020

Nice color scheme. Additional work on subject of how to dismantle a nuclear bomb. Good metaphors (baseball references) when explaining the concept of neutron capture. The idea of neutralizing launched warheads needs work though: warheads are complex enough beasts that if we just hit them with a missile and blew them up directly, they wouldn't detonate as nuclear weapons. So if can get close enough (for instance, with a surface-to-air missile) to do what you're saying, it would probably pay off just to explode the thing. Perhaps you could take this another direction: how do we dismantle nuclear weapons we have already *agreed* to dismantle (through nuclear treaties) but are still sitting in our arsenal?

115022

Parts I – X submitted per instructions on website. Nicely organized and well-written. Higher grades can come from original research.

114117

Philosophical treatise on the morality/deontology of nuclear deterrence. Very well-researched and referenced. Love the focus on 'hostage holding.' Very well done.

114877

Parts I – X submitted per instructions on website. Higher grades can come from original research / recasting the material in a new way.

114874

Funny jokes/comics throughout – nice touch. You were a bit high up in your Google Earth view to see the test range and the craters directly – you should descend just to see! Fantastic sample calculation done at the end – like a physicist does! And your video was well-made (would change 'destroyed' to 'destroyed' is all). Obviously a lot of original research, insight, and creativity went into this project.

114896

Would like to push you to do some research on your new idea – the idea of a set of nuclear bombs shared only by a group of nations (including but not always the United Nations organization) is definitely out there and worthy of further investigation. One place to start might be Jonathan Schell's "The Gift of Time." There are political obstacles & opportunities that should be addressed in a more thoroughly researched discussion of the issue.

114767

Parts I – X submitted per instructions on website. Higher grades can come from original research / recasting the material in a new way.

114914

Would like to push you to do some research on your new idea – have such proposals been offered by others? What have been the consequences? What conflicting interests are at play?

115053

Simple but nice original diagrams. Parts I – X submitted per instructions on website. Higher grades can come from original research / recasting the material in a new way.

115008

Some original research/calculations related to the Tsar Bomb. Where else can you take this? I want to push you for the next draft to run with it a little farther.

115121

Parts I – X submitted per instructions on website. Higher grades can come from original research / recasting the material in a new way.

115068

Essay on the morality & ethics of nuclear war. Well-written. Would like to push you to consider some of the practical considerations that can help lead us out of (or further into) the situation at hand. Perhaps do some research into politicians/scientists/etc. who are working on these very issues. What do they think?

114802

That's interesting about the Big Dipper! =) Never noticed that. Really fun project involving Google suggestions – great idea and a pleasure to read through. Very well researched & referenced work. "Why does Radio Shack ask for your phone number when you buy batteries?" – Cosmo Kramer

114941

Needs proofreading. Doesn't come across as significant effort or original research. Higher grades can come from original research / recasting the material in a new way.

115031

Nicely put together and written. Persuasive argument at end could be made current (and justified) by some original research into what is being done along these lines *today*.

114833

The original part consists of the beginning (or sketch) of a short story that describes the aftermath of a bomb detonation in San Francisco. I think this is a great idea and could just use some time & effort to turn it into something masterful.

115744

Good job relating this issue to current affairs! The next step is to make this section more concrete. Look into Barack Obama's speech in Prague on April 5 regarding this issue (many attribute his prize in large part to this speech). Read some articles on this and include these in your final draft.