

The Great Debate - Pros and Cons of Nuclear power

SOL PS.5 abc, 7ab

Objective: The students will research nuclear power, form an opinion, and participate in a class discussion. Each student will say at least one fact they learned or theory they came across during their research, with at least 95% of students participating in the class discussion.

Day One (approximately 3-4 days prior to class discussion)- Notes 3b- Fission and Nuclear Power will be completed in class as lecture¹ and part of their available notes during research time.

Day Two (1 day prior to class discussion)- Students will be given 30 minutes² to do their own research on nuclear power. They will be allowed to use the internet as well as a set of books about nuclear power borrowed from the library.³

Day Three (Class discussion Day!)- First, daily warm-up Journal question (5 minutes)

Students will be given basic discussion guidelines- speak clearly, with conviction but not emotion. No name-calling or insults will be tolerated. You can say “I disagree” but you cannot say “You’re wrong.”⁴ Everyone is expected to say at least one thing about what they found, and if it comes down to “they said what I was going to say” then that is okay, you can say it again. (5 minutes)

Students will then split into two groups - “for” and “against,” and then, depending on class/group size, students will split into smaller groups of 3-4. They will share their findings with each other and begin forming ideas of what they will share with the opposing point of view to get their point across. They will work together to create one concept/story/fact for each person to share from their combined research that supports their view during class discussion. They will be given 10-15 minutes to talk in small groups and work out what each is going to share during class discussion, practice, and ask me for pronunciation as well as any clarifying questions. (15-20 minutes for explanation and small group discussion.)⁵

¹ Some students wanted to begin the discussion RIGHT THEN during the lecture. Hated to make them wait-- but the excitement and engagement was great to see.

² Students were given an entire period rather than only 30 minutes. Examples of student submissions of their research are in the submitted artifacts. Unfortunately I was out sick on research day and was only able to guide them from a distance; however, it seemed to go very well, considering.

³ A few teachers that covered informed me that the books were not often touched, and that is apparent from their submitted research documents. I think that would have changed had I been there to encourage it more. I think it is a great indicator of the digital, googling age we are entering. This has its pros and cons. Next debate topic...?

⁴ With how difficult it felt like it was to get them to actually discuss throughout the day, it seemed like maybe I should have told them they could say this stuff!!

⁵ UGH. While I definitely want to do something like this in the future, I am not so sure about having them prepare in this way. They prepared more like a speech/presentation than for a debate/discussion. When you view the first few moments of the video I selected, you will hear the surprise in a student’s voice when he figures out that we are supposed to actually-really-truly have a DISCUSSION. Like, back and forth TALKING and LISTENING. Again, a few students’ notes for this are included in the artifacts.

The Great Debate- Students will take turns on each side of the debate (pro or con), sharing the one fact/story that they agreed to share during the small group discussion.⁶ After everyone has shared their one fact/story, the floor is open to people sharing their opinions from each side, with a 2 minute limit (timer kept by teacher) for opinion sharing per person, again passing it back and forth between the two sides. Students are also encouraged to share what things came to their mind new and fresh that they hadn't considered before due to the discussion.⁷ If there is time, students will be allowed to switch sides if they had a change of heart to see where the class opinions lie now.⁸ (30 minutes)

Day Four (Evaluation) - Students will answer survey questions in a google form about yesterday's debate. How do they feel it went? Pros and cons of doing it that way? Did anything that other students said change your opinion or perspective? How do you feel about using this as a way to learn in general? ⁹(5-10 minutes)

⁶ In most classes, I had multiple groups on one side and only one group on the other; what's odd is that it switched up (in some classes they were mostly pro and only a few con, other classes had mostly con and only one pro; and in one class, it was all pro and we actually had to get a group to be willing to argue the cons to have someone to debate with. That group ended up changing their actual opinion due to their research for the con side. Having to do this research and prepare to speak had a definite impact on their learning, and they took it very seriously.

⁷ I was amazed at one group in particular, the one I chose to share the video with you from their class-- at the end of the discussion, which *hopefully* is included in the provided video clip, near the end- the one student, who happens to be a special education student, gave the best, most dynamic and thoughtful comment of the day, and it was his words and not read from a script and it was a great, insightful comment. The whole class applauded him. It was a wonderful showcase of a child's intelligence for a kid who spends most of his time in class in lala land and has to be reminded to get back to whatever we are doing.

⁸ This definitely happened. Multiple cons became pros, and a few pros became cons after the discussion. It was so interesting to see how what their peers had found out affected their thought processes.

⁹ I ended up creating a google form for them to fill in, and their survey answers are provided with the other artifacts. I didn't ask each of these questions but rather left it open-ended (after a quick "should we do this again?" multiple choice question), hoping that I would get a blend of the answers that I was looking for, and I did. Even the ones that I didn't think got anything out of it appeared to like it enough to want to do it again, or at least try it again now that they know what we're looking for.