

Chemistry II Honors Debate

175 total points

Purpose: To demonstrate that you can research a compound, create a model of your compound, and debate the pros and the cons of your compound against one of your peers. Keep in mind that your audience is your classmates, so the positives of your compound are going to be how this compound could benefit them and the negatives of your compound are going to be how this compound is detrimental to them. You will be evaluated on how you present your argument, what levels of support that you use, and how prepared you are to challenge and question the information as presented by your assigned peers.

Format of the Debate:

- ~ Ten minute video from debater A
- ~ Ten minute video from debater B
- ~ Three minute time to organize your thoughts
- ~ Five minute opposing argument from debater B
- ~ Five minute opposing argument from debater A
- ~ Two minute time to organize your thoughts
- ~ Two minute rebuttal (closing statement/synopsis) from debater A
- ~ Two minute rebuttal (closing statement/synopsis) from debater B

Video: 60 points

The video must be between 9-10 minutes in length. It should cover the good characteristics of your compound. (benefits, uses, some of the history/past uses, possible future applications) Video could include components that are student generated, video clips found on-line, photo-stories, animoto, demonstrations/chemical reactions, power-point with narration or other components.

Opposing Argument: 30 points

The opposing argument must be no longer than five minutes. It should try to present the bad characteristics of your opponent's compound, meanwhile showing how your compound is better. During the opposing argument, you should include evidence from your opponent's video and from your own research.

Rebuttal: 10 points

The rebuttal must be no longer than two minutes. It should be your final thoughts about the topic. Think about the closing statement that a lawyer makes to the jury during a trial when coming up with your rebuttal.

Model: 60 points

- ~ Use of non-perishable items (10 pts)
- ~ Accuracy (20 pts. include a picture of compound, make sure bond angles are correct and all elements are accounted for)
- ~ Creativity (10 pts.)
- ~ Durability (10 pts. able to be moved/manipulated, free standing or mounted to a poster board)
- ~ Labels (10 pts. Name, period, compound name, key to explain molecule)

Written: 15 points

- ~ Bibliography (4 different sources minimum, in proper format APA or MLA) (10 pts)
 - ~ At least one book reference and one periodical reference
 - ~ Be sure to cite the pictures and videos
- ~ Exit Slips (5 pts)
 - ~ After each debate you will submit who you thought won the debate and three supporting statements why you made your decision.



Research Categories

Vitamins & Antioxidants ex: A, B6, B12, C, D, E, H, K, uric acid, melatonin, beta-carotene, lycopene, etc.

Polymer ex: nylon, kevlar, teflon, carbon nanotubes, types of glue, various plastics (pvc, polystyrene, polyethylene, polypropylene...) or rubber (neoprene, polyisoprene, polysiloxane...), etc.

Chemical Weapons ex: nitroglycerine, mustard gas, vx gas, phosgene, sarin gas, tabun gas, tetrodotoxin, napalm, trinitrotoluene, bz, etc.

Human Hormones ex: testosterone, estrogen, adrenaline (epinephrine), progesterone, cortisol, cholesterol, creatine, serotonin, acetylcholine, norepinephrine, dopamine, gaba, etc.

Food Flavorings/Additives ex: vanillin, theobromine, monosodium glutamate, isoamyl acetate, benzaldehyde, cinnamaldehyde, tartaric acid, methyl salicylate, olestra, etc.

Sweeteners ex: sugar, saccharin, aspartame, sucralose, erythritol, etc.

Fuels ex: octane, propane, diesel, kerosene, butanol, uranium, plutonium, hydrazine, etc.

Carcinogen ex. sodium arsenate, asbestos, benzene, sodium dichromate, ethylene oxide, vinyl chloride, etc.

Fire Retardant ex. aluminum hydroxide, magnesium hydroxide, decabromodiphenyl ether, tris(2,3-dibromopropyl) phosphate, etc.

Cosmetics ex. allantoin, alpha hydroxyl acid, ammonium lauryl sulfate, benzoyl peroxide, glycerine, salicylic acid, sodium metabisulfite, etc.

Drugs ex: antibiotics, pain killers, acid reducers, hallucinogens, stimulants, depressants, etc.

Antibiotic examples neomycin, amoxicillin, ampicillin, erythromycin, moxifloxacin, tetracycline, etc.

Pain Killer examples aspirin, naproxen sodium, ibuprofen, acetaminophen, codeine, hydrocodone, oxycodone, lidocaine, etc.

Acid Reducer examples omeprazole, ranitidine, sodium bicarbonate, calcium carbonate, bismuth subsalicylate, etc.

Hallucinogen examples Lysergic acid diethylamide, psilocybin, dimethyltryptamin, mescaline, tetrahydrocannabinol, etc.

Stimulant examples caffeine, amphetamine, nicotine, Methylenedioxymethamphetamine, cocaine, ritalin, etc.

Depressant examples morphine, heroine, ethanol, phenobarbital, pentobarbital, etc.



Honors Chemistry Debate Rubric

VIDEO RUBRIC																	
		Absent	Fair			Good			Excellent								
Organization and Clarity	Information is easy to follow and well organized	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Little or no organization is evident and/or presentation focus is unclear and confusing.	Organization is evident, but could be more effective. Overall purpose is unclear. Most of presentation clear and well organized. Purpose is clear. All information is effectively organized and clearly presented.															
Use of Examples and Facts	Concrete examples of past, present and future applications are presented	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Presentation includes no specific examples or researched facts	Presentation includes a few relevant examples and factual evidence, but could be more thoroughly researched. Includes many examples/facts given: most or which are relevant to your overall purpose. Many relevant supporting examples and facts given to show signs of thorough research.															
Strength of Arguments	Thorough explanations and logical reasons are given to support viewpoint.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Very few or no relevant reasons or explanations given	Some relevant reasons given and attempt is made at explaining most points. Most reasons are relevant, logical and thoroughly explained. All reasons are relevant, logical, and thoroughly justified. You sound like an expert on the topic.															
Presentation/Video Quality	Media preparation and design is effectively informs and convinces audience	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Video is incomplete or shows very weak evidence of preparation in design and content	Video supports your information and viewpoint, but media lacks variety and/or could be used more effectively. Video weaves together a variety of media (images, charts, graphs, video, etc) to reinforce information and support your viewpoint. Video includes original material and creatively weaves together high quality media to fully support your viewpoints.															

Comments:

Total Points _____/60

ARGUMENT RUBRIC		Absent	Fair	Good	Excellent												
Use of Video Material Brings up specific points that are addressed in opponent's presentation	Does not address points from opponent's video	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Addresses one or two points from opponent's video																
Strength of Opposing Argument Thorough explanations and logical reasons are given to support viewpoint.	Very few or no relevant opposing reasons or explanations given	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Some relevant opposing reasons given and attempt is made at explaining most points.																
Rebuttal Logical and effective defense of opposing arguments	No effective counter-arguments made	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Few effective counter-arguments made																
	Effective arguments made to counter most opposing points																
	Many effective arguments made to counter all opposing points																

Comments:

Total Points _____/40

ARGUMENT RUBRIC

	Absent	Fair	Good	Excellent
Use of Video Material Brings up specific points that are addressed in opponent's presentation	Does not address points from opponent's video	Addresses one or two points from opponent's video	Addresses most of the points and examples from opponent's video with clear explanations	Addresses all of the points and examples in the video with clear explanations
Strength of Opposing Argument Thorough explanations and logical reasons are given to support viewpoint.	Very few or no relevant opposing reasons or explanations given	Some relevant opposing reasons given and attempt is made at explaining most points.	Most opposing reasons are relevant, logical and thoroughly explained	All opposing reasons are relevant, logical, and thoroughly justified. You sound like an expert on the topic.
Rebuttal Logical and effective defense of opposing arguments	No effective counter-arguments made	Few effective counter-arguments made	Effective arguments made to counter most opposing points	Many effective arguments made to counter all opposing points
	0 1 2 3 4 5 6 7 8 9 10	0 1 2 3 4 5 6 7 8 9 10	0 1 2 3 4 5 6 7 8 9 10	0 1 2 3 4 5 6 7 8 9 10

Comments:

Total Points _____ /40

	Absent (0)	Poor (2)	Average (3)	Good (4)	Excellent (5)
Non-Perishable Items (x2)	All of the items included in the model are perishable items.	X	Most items included in the model are non-perishable items.	X	Each item included in the molecular model is a non-perishable item.
Accuracy (x4)	The model is incomplete.	The molecule is represented, but not three-dimensionally. Several of the bond angles are incorrect. Several elements are not accounted for.	The molecule is correctly represented three-dimensionally. Most of the bond angles are correct. Most elements are accounted for.	In addition to the model, a detailed picture of the molecule is included. All bond angles are correct. All elements are accounted for.	In addition to the model and picture, a relevant connection is made between the molecule and its practical application. All bond angles are correct and can clearly be seen. All elements are accounted for and can be clearly seen.
Creativity (x2)	The model is incomplete.	The model does not differentiate between atoms of different elements. Bonds cannot be clearly seen. The molecule is disorganized.	Atoms of different elements are differentiated in the model. Bonds are clearly shown in the model. The molecule is organized.	Different objects are utilized in order to differentiate atoms of different elements. Single, double, and triple bonds are differentiated. The model is visually appealing.	In addition to differentiating atoms/bonds with different objects, items used to create the model (atoms/bonds) correlate directly to its application in real-life.
Durability (x2)	The model does not remain intact.	X	The model remains intact, but requires extra support in order to be hung up.	X	The model can be moved and manipulated without fear of it falling apart and is mounted securely.
Labels (x2)	There are no labels present on the model.	The student is missing one of the following labels: name, period, compound name, or the key.	The name, period, compound name, and a key to explain molecule are present.	The key is descriptive and includes the name of the student, the period, and the compound name. All labels are clearly visible.	In addition to the name of the student and the period, the key and name of the compound are presented in such a way that it catches the attention of the audience and is neatly displayed.

