Learning Targets: • I know what energy is, where it comes from, and how we use it.

- I can compare and contrast alternative fuels using research and text evidence.
- I can argue verbally and in writing for the use of a particular source of energy.
- I can make a positive difference in my community's use of energy.

Persuasive Essay: Op-Ed

Choose one of the following forms of renewable energy to research and advocate for:

wind solar hydroelectric geothermal biomass

Your essay should convince an intelligent but uninformed reader that your choice is the best source of energy for the future.

REQUIREMENTS:

- Your essay must include a THESIS stating your position.
- Each POINT you make must be supported by EVIDENCE and EXPLANATION. Your essay should have a *minimum* of three supporting points.
- Include REQUIRED background information:
 - 1. Where does your energy come from?
 - 2. What is the history of this form of energy? (e.g. Who invented it? Where and how? What improvements have been made to it? Who / what uses it now?)
 - 3. How is the energy collected and transformed into a usable form of energy /
 - 4. How is this form of energy used in homes and business? In transportation?
 - 5. Any other important or interesting facts?
- Your essay must follow the Sheridan Baker "KEYHOLE" structure.

REMEMBER TO INCLUDE:

- WHY IS YOUR CHOICE BEST? What are the advantages to using this form of energy?
 - Consider: Is it clean? Easily available? Inexpensive? Non-polluting? Why else is it a great idea?
- ACKNOWLEDGE and REFUTE COUNTERARGUMENTS. What are the disadvantages of using this form of energy?
 - Consider: Are there negative impacts on the planet? Is it expensive or difficult to find or produce?
 - How can you respond to or invalidate these arguments?



Potentially Useful Resources:

- Alternative Energy Institute, Inc http://www.altenergy.org/
- CIA World Factbook https://www.cia.gov/library/publications/
 resources/the-world-factbook/index.html
- National Renewable Energy Laboratory http://www.nrel.gov/
- U.S. Department of Energy http://www.energy.gov/
- U.S. Department of the Interior https://www.doi.gov/
- U.S. Geological Survey Energy Resources Program http://energy.usgs.gov/
- National Geographic Encyclopedia Renewable Energy http://education.nationalgeographic.org/encyclopedia/renewable-energy/
- U.S. Energy Information Administration Energy Kids https://www.eia.gov/kids/energy.cfm?page=renewable-home-basics

Remember, crowd-sourced websites are not acceptable sources for evidence (although you can use them to find links to reliable sources).

This includes Wikipedia, ask.com, Yahoo
Answers, Quora, etc.

Debate



You and your team will effectively argue this point: "Resolved: [our energy source] is the best fuel for our future."

PROCESS:

- Your team will be assigned an alternative energy source.
- Your first job is to select a team captain.
 - The captain will help guide research, making sure that all relevant information is gathered, all questions have been asked, and all points addressed.
 - He or she will also give the opening arguments, and may give the closing arguments if you wish.
- All members of the team will research and complete a debate organizer.
 - Thoroughly research your energy source. **Know its pros and cons** deeply.
- Using your research, plan and discuss your arguments.
 - Decide on important points you think you should cover first.
 - Include in your arguments: a definition of your energy source, examples of how your source is used, advantages of your source
 - Know the arguments against your energy source and be prepared to counter them.

 Not true
 Not true
 Not always true
 - Remember, the opposition's arguments may have different weaknesses:
 - Try to figure out what the opposing team's arguments will be. This is their strategy for winning the debate you need to be prepared to question and weaken their position.

Rules:

- No personal insults
- No put downs
- No emotional appeals
- Everyone needs to do their fair share of research
- Everyone speaks during the debate

Not necessarily true

Debate Structure:

- 1) **OPENING ARGUMENTS:** The captain of each team will have four minutes to present opening arguments laying out your main points.
 - As the opposing team makes its opening arguments, your team should be taking notes and thinking about how to counter their positions.
- 2) CONFER: Both teams will then have five minutes to confer and decide how to present their rebuttal (questioning and arguing against the opposition's points)
- 3) **REBUTTAL:** Each team will have four minutes for rebuttals.
 - Individual team members will present specific arguments. This means: new argument = new speaker.
- 4) CONFER: Both teams will have five minutes to confer and decide how to respond to the opposition's points.
 - Think about how to promote your own arguments, as well as how to weaken the opposition's.
- 5) **RESPONSE**: Each team will have four minutes to present a response.
 - Individual team members will present specific arguments. This means: new argument = new speaker.
- 6) CONFER: Both teams have two minutes to make any adjustments to their closing arguments.
- 7) **CLOSING ARGUMENTS:** Each team will choose a member to present closing arguments. This person may be the captain; it's up to you. You will have three minutes.
 - Your team should sum up your arguments, respond to the opposition's points, and drive home why your fuel is the best one for our future.





Persuasion, Part II: Advertising

In addition to thoughtful writing and convincing debate, another effective way to sway popular opinion is **advertising**.

After completing your research, you and your debate team will design a 'billboard' poster advertising the benefits of your energy source. The poster will be 11" x 17" (187 in²).

REQUIREMENTS - Your billboard must include:

- Your team's name and logo
- The name of the **energy source** you are promoting
- A representation of at least **one advantage** of your energy source
- Definite care and craftsmanship

Important Notes:

- You may highlight the benefits of your energy source by contrasting it with another alternative fuel or with fossil fuels.
- Include as much text as you wish, but remember that billboards are seen
 quickly and from relatively far away, so longer text can't really be read. (The
 examples below don't necessarily meet all of our criteria; they're just to give
 you an idea.)











Student Voice and Choice: Tikkun Olam Service-Learning

We've been learning about the importance of reducing our use of fossil fuels and promoting alternative fuels as sources of energy. You're building background knowledge about energy and you're developing opinions about the pros and cons of different sources.

Now we are going to participate actively in our community to make a **tangible difference in our school and beyond**. In teams, you will create plans for one specific thing we can do in partnership with Denver Jewish Day School.

Driving Question - How can we make a positive difference in our community's use of energy?

Goal - is to benefit our community, solve a problem, or otherwise positively engage our community about energy use.

In this project, we will AVOID:

- asking for money from the school
- soliciting donations from the public

FIRST your team will brainstorm and answer these questions by creating a Gallery Walk poster:

- 1. What problem does your team see in the community?
- 2. How might you solve it? What is your plan?
- 3. What work will you produce?
- 4. Who might you work with in the community?
- 5. Who will be helped by your work?
- 6. What information might you collect along the way?
- 7. How will you measure your success?

THEN the class will choose one of the projects and complete it.

FINALLY each student will reflect on the project and what we accomplished.







You are responsible for keeping this sheet and getting each stage signed off!

Persuasive Essay: Op-Ed		Teacher Signature When Complete
Alternative Fuel Matrices -	Wednesday, March 23	
Outline -	Thursday, March 31	
Rough Draft -	Thursday, April 7	
Final Draft -	Monday, April 18	
<u>Billboard</u>		
Sloppy Copy -	Wednesday, March 30	
Final Draft -	Wednesday, April 6	
<u>Debate</u>		
Planner -	Monday, April 11	
Note Cards -	Thursday, April 14	
Debate -	Tuesday, April 19 (2:00?)	
Tikkun Olam Service-Learning Project		
Brainstorm and Proposal Draft -	Friday, March 25	
Gallery Walk -	Friday, April 1	
Final Proposal and Plan -	Tuesday, April 5	
Completed Action -	by Monday, May 10	
Reflection -	Friday, May 13	

Calendar of Due Dates

Wed 3/23 - Alternative Fuel Matrices completed (in class)

Fri 3/25 - Tikkun Olam Service-Learning Project Brainstorm and Proposal Draft (in class)

Wed 3/30 - Billboard Sloppy Copy (in class)
Thu 3/31 - Persuasive Essay Outline (in class)

Fri 4/1 - Tikkun Olam Service-Learning Project Gallery Walk (in class)

Tue 4/5 - Tikkun Olam Service-Learning Project Final Proposal and Plan (in class)

Wed 4/6 - Billboard Final Draft (in class)

Thu 4/7 - Persuasive Essay Rough Draft (at home)

Mon 4/11 - Debate Planner completed (at home / in class)

Thu 4/14 - Debate Note Cards completed (in class)

Mon 4/18 - Persuasive Essay Final Draft (at home)

Tue 4/19 - Debate (in class)

Mon 5/10 - Tikkun Olam Service-Learning Action completed (at home / in class)

Fri 5/13 - Tikkun Olam Service-Learning Reflection (in class)