



TOPIC: SELF-DRIVING CARS



THE GREAT DEBATE

SCIENCE MATTERS



Support opinions with facts

Develop communication skills

DEBATE TOPIC:
Only self-driving cars should be allowed on interstate

Character Name: _____ Character's Position: For / Against

Supporting Evidence:
Read your characters argument, research some facts that support this position, write your evidence below:

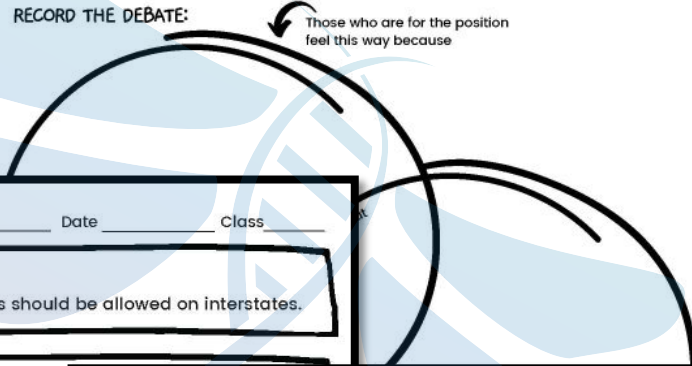
1. _____
2. _____
3. _____

KEYS TO A SUCCESSFUL DEBATE:

- Do not interrupt when others are speaking
- Keep answers short and concise
- Listen carefully to your opponent and ask questions
- Speak calmly and politely
- There are no bad ideas
- Do not raise your voice

RECORD THE DEBATE:

Those who are for the position feel this way because



Planning
Think
resources

DEBATE TOPIC:
Only self-driving cars should be allowed on interstates.

1. _____
2. _____
3. _____

Research Topic:

Research using articles and/or websites that help you understand controversy behind the topic. Write down the information in the debate.

1. _____
2. _____
3. _____

Questions:

Think about both sides of the debate and prepare three questions. Questions should result in more than a "yes" or "no" response.

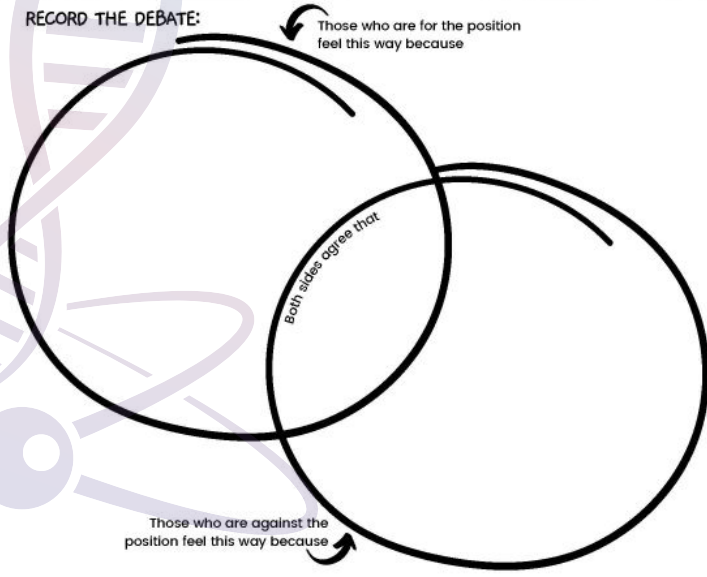
1. _____
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KEYS TO A SUCCESSFUL DEBATE:

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- There are no bad ideas
- Do not raise your voice

RECORD THE DEBATE:

Those who are for the position feel this way because



Those who are against the position feel this way because

TAKE A STANCE:

You have just heard compelling arguments from both sides, use the space below to explain your own opinion using supporting facts.

DEBATE OBJECTIVES:

- To practice debating and discussing topics and
- Think about different points of view
- Use facts to support opinions
- To structure an argument using points and evidence
- Understand debates have a for/against structure

KEY VOCABULARY:

Fact – a thing that is known or proven to be true
Opinion – a belief or attitude about something
Point – a short sentence that explains why you agree/disagree
Explanation – how and why your point is true.
Pro – An argument or consideration in favor of something
Con – An argument or opinion against something
Rebuttal – a statement that a claim or criticism is wrong

TEACHER GUIDE PROVIDES OBJECTIVES, BENEFITS, AND OPTIONS FOR A SUCCESSFUL DEBATE.

FOR BEGINNERS, MODEL A DEBATE:

In order to get your students into the Great Debate mindset, begin by modeling a debate by putting a controversial topic on the board like "Homework should be banned!"

Next to the debate topic write down these terms: fact, opinion, point, explanation, pros, cons, and rebuttal. Discuss each term and its meaning.

standing:
 opinion?
 ?
 tion on your topic?
 ce?

NOW YOU'RE READY TO START THE GREAT DEBATE

Choose your debate style (options next page) and assign character cards. Each debate character card has a position for/against the topic being debated. A rebuttal card is a point that helps the student to understand the other side when they find facts to support their point of view or a question which they will use to engage with the other side's opposite points of view.

Students Actively Debating:

If students are actively debating, they will come up with questions. First, they will fill out their character information and research. Then, they will find three facts to support their point of view. What might someone on the other side of the debate. What might someone on the other side should plan to come up with potential responses?

When prep and research are completed by the students, the moderator presents first.

Students As Audience:

If your debate option includes having someone act as the audience, have articles or websites ready for them to read about the controversy of the topic. Audience members should come up with questions to ask both debate teams.

After Debate:

After the debate is completed, have student moderators present information presented during the debate. Was there anything they agreed on? Finally, have students vote on what they just heard using supporting facts.

Assessment:

- A grading rubric has been provided for the debate.
- A peer assessment has also been provided to evaluate the behavior of each team.

DEBATE OPTIONS:

THREE QUESTION DEBATE (ONE CLASS PERIOD)

Divide the class into two teams. Small groups focus on their character cards.

Alternate which team delivers main points first.

15 minutes: Prep/Research

3 minutes: Team A Main Points from character cards

3 minutes: Team B Main Points from character cards

2 minutes: Team A Rebuttal (Q1, Q2, Q3)

2 minutes: Team B Rebuttal (Q1, Q2, Q3)

Debrief

SMALL GROUP DEBATE (ONE CLASS PERIOD)

Generate two debate teams of 2-4 students (cards assigned).

Often done multiple times per semester until each student has had a chance to debate a topic

5-10 minutes: Prep/Research

5 minutes: Opening Statement (Team A)

5 minutes: Opening Statement (Team B)

5 minutes: Rebuttal (Team A)

5 minutes: Rebuttal (Team B)

15 minutes: Audience ("media reporters") questions both teams

Debrief

TOWN HALL (ONE CLASS PERIOD)

Assign some students roles to represent.

Introduce topic.

5-10 minutes: Prep/Research

2 minute persuasive speeches (pro)

2 minute persuasive speeches (con)

2 minute: Q and A each side

10 minutes: Audience ("citizens") question both teams

"Citizens" vote

Name of Assessor: _____
 Debate Team and Position: _____

Speaker Behavior
Speaks directly to the topic
Uses "because" statements to support their side
Makes good eye contact
Showed good listening skills
Builds on or adds to the topic
Disagrees using appropriate language
Speaks off topic
Repeats information
Interrupts or deliberately misrepresents
Negative, demeaning or disrespectful

Spee
Speaks directly to
Uses "because" sta
Makes good eye co
Showed good liste
Builds on or adds t
Disagrees using ap
Speaks off topic
Repeats informatio
Interrupts or delibe
Negative, demean

ASSESSMENT RUBRICS PROVIDED — ONE FOR GRADING BY TEACHER AND ONE FOR STUDENTS TO ASSESS DEBATE TEAMS BASED ON BEHAVIOR IN DEBATE.

Debate Team Name: _____

DEBATE TOPIC:
 Only self-driving cars should be allowed on interstates.

GRADING RUBRIC:

Criteria	4	3	2	1	Total
Organization & clarity Main argument outlined in a clear and orderly way	Completely clear and orderly	Mostly clear and orderly in all parts	Clear in some but not all parts	Unclear and disorganized throughout	
Use of evidence Reasons are given that are supported by cited facts	Very strong, persuasive argument supported by evidence	Many good arguments given, few supported facts	Some satisfactory arguments, not well supported	Few or no real arguments provided with no supporting facts	
Use of rebuttal Ability to uphold position against questioning from opposing side	Excellent response to rebuttal and questioning	Good questioning and rebuttals with only a few mistakes	Fair questioning and rebuttals but major mistakes	Poor questioning and failure to defend position	
Presentation style Ability to clearly express opinion & persuade audience	Very convincing argument. All team members participated	Good convincing argument. Most team members participated	Fairly convincing argument. Few team members participated	No convincing argument. Team members did not work together	

Comments

RONNIE EARL

Highway patrol officer



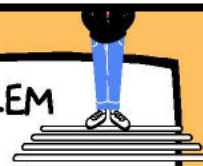
As someone who spends a lot of time dealing with traffic accidents on busy interstates, I think self-driving cars are a great idea. Distracted and impaired drivers are a major problem on our busy roadways, and so many unnecessary accidents could be prevented.

Point: Self-driving cars will save lives on the roadways.

Probing Questions: How can we make sure self-driving cars save as many lives as possible?

NICOLAS TENBLEM

Commuter



Self-driving cars are coming

**EACH DEBATE HAS 8 CHARACTER CARDS —
4 ROLES ARE PRO TOPIC AND
4 ROLES ARE AGAINST TOPIC**



Only self-driving cars should be allowed on interstates.

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Only self-driving cars should be allowed on interstates.

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STEPHAN

EPA Agent

Day in and day out on the horizon, self-driving cars will be electric and use internal combustion engines, making it more difficult to protect the environment and reduce greenhouse gas emissions.

Point: Self-driving cars are not the answer for the environment.

Probing questions: How can we make the world a better place for future generations?



Only self-driving cars should be allowed on interstates.

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Only self-driving cars should be allowed on interstates.

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THE GREAT DEBATE

SCIENCE MATTERS

I'm afraid I
your point.

CLASSROOM POSTERS ALSO INCLUDED!

I'd like to take
issue with
what you just
said.

There are two
issues our

According to
other side, o
opponents

USEFUL D

THE GREAT DEBATE

SCIENCE MATTERS

KEYS TO A SUCCESSFUL DEBATE

Speak
calmly
and politely



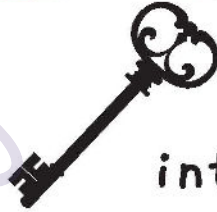
Listen
carefully
to your
opponent and
ask questions



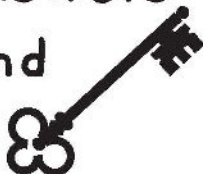
Do not raise
your voice



Do not
interrupt
when others
are speaking



Keep answers
short and
concise





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