

DEBATE

IS CHANGE ACCELERATING?

Introduction

In this activity students will be asked to apply what they have learned about acceleration by examining whether or not rates of innovation can keep up with rates of acceleration. Understanding this helps students to better predict the state of our world in the future.

Preparation for the activity

Divide the class into two “position” groups. One group will argue that innovation can keep up with acceleration, and the other group will argue that it cannot. Tell your students that each group is responsible for researching its position and preparing an argument to support its point of view.

Questions students should consider:

- What are some of the problems we face as a result of our success in creating the modern world?
- How could these problems be addressed, if at all? What might happen if we do not address these problems?

Each group should spend 20 to 30 minutes preparing their position. Everyone in the group will work together to identify material to support the group’s position, and to create a list of arguments that other groups might use to argue against them group. One or two students might each work on the opening and closing statements while the group is conducting research; however, the entire group should edit these statements. Finally, each group will need to decide who will read the opening statement, rebuttal, and closing statement. While listening to the presentation of other groups, everyone should be taking notes for the rebuttal of the other teams’ opening statements.

Have students work to generate ideas for the debate and prepare opening and closing statements. Students can use the graphic organizer provided to help formulate their positions. In addition to any research they do — in the library or through the Internet, for example — students should be sure to consult the resources on the Big History Project website and their notes from the discussion of the

material in Unit 2. Be sure to circulate the room and check in on student progress.

Debate format

Opening statements

Each group will read their opening statement for the debate.

Groups meet to prepare rebuttals

Groups will spend 10 to 15 minutes preparing a rebuttal of the other groups’ opening statements.

Rebuttals

Each group will read their rebuttal in response to the other groups opening statement.

Groups meet to modify closing statements

Each group will take 5 to 10 minutes to revise their closing statements to account for the other group’s rebuttals.

Closing statements

Each group will read their closing statement for the debate.

Vote on the outcome

Once the debate is complete, ask students to vote for the group that made the best argument for its position. Remind them that the criterion is which group made the best argument, not which group argued the position they agree with.



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Introduction

Humans have been around for about 200,000 years, and for almost all of that time the rates of innovation and of human population growth has been very slow. The pace of these rates picked up with the advent of agrarian civilizations about 11,000 years ago, increased even more as the Industrial Revolution began to reorganize society about 250 years ago, and really took off in the past century. It is staggering to realize that, after a quarter million years of foraging and several additional millennia of farming, we have moved from the first steam engine to the Internet age of information in just a bit more than two centuries, and that in just the past 100 years the population has shot up from 1.6 billion to 6.1 billion, a 400 percent increase. Just as staggering are the problems we face as a result.

Thus far innovation has kept pace with population growth, but how long can that last? The population is not likely to level off before we reach 8 billion, but, perhaps more important than this, agriculture is confronting the additional stress of global warming. Researchers forecast much more severe weather patterns in decades to come, including more extended droughts, stronger hurricanes, more flooding, milder winters that could increase insect populations, among other problems. There is no doubt that accelerated growth and innovation have served us well in the modern world, but will we continue to innovate rapidly enough to stay ahead of what might be an imminent worldwide catastrophe? Or have we created a Frankenstein monster that is impossible to control?

Your teacher will divide your class into two “position” groups. Your group will research its position and prepare an argument addressing the problems we face due to accelerated rates of innovation and population growth and whether continued acceleration will solve them or just make them worse.

- What are some of the problems we face as a result of our success in creating the modern world?
- How could these problems be addressed, if at all? What might happen if we do not address these problems?

Preparation for the activity

Your teacher will assign you to one of the two position groups. Your group will be responsible for researching and arguing this position. As in any debate, you may be assigned to defend a position with which you do not actually agree. You don't need to agree with the position, though you need to understand the perspective of those that do. Use the Internet and course materials to help you in your research.

- PG 1: Here's the plan.
- PG 2: We're doomed!

Each group will spend 20 to 30 minutes preparing their position. Everyone in the group will work together to identify material to support the group's position, and to create a list of arguments that other groups might use to argue against your group. One or two of your team members might each work on the opening and closing statements while the rest of the group is conducting research; however, the entire group should edit these statements. As a team, decide who will be reading your group's opening statement, rebuttal, and closing statements. While listening to the presentation of other groups, be sure to take for your rebuttal of the other teams' opening statements.



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Name:

Date:

Opening statement	
Points to support our position	Possible counterpoints
Closing statement	



DEBATE PREP WORKSHEET

Name: Date:

Directions: To prepare for the upcoming debate, fill in your statement (position), major points, and supporting examples. Also, try to figure out what the other team might say and be ready to make counterarguments in response to their points.

1. Statement

State the answer to the debate question or the opinion that you'll be arguing. _____

2. Major Points

Aim to have at least four major points as part of your opening argument. Each major point should clearly support your statement. Each major point should also have a piece of supporting evidence. Use your claim-testing skills to help ensure your supporting evidence is high quality.

- Major Point 1: _____

Examples and supporting evidence: _____

- Major Point 2: _____

Examples and supporting evidence: _____



DEBATE PREP WORKSHEET

Name: Date:

• Major Point 3: _____

Examples and supporting evidence: _____

• Major Point 4: _____

Examples and supporting evidence: _____

3. Checklist

Before you begin your debate, be sure you've covered all of the points below. You should also look at the "Debate Rubric," which will help you understand the details of what you need to do to have a successful debate. Hold a practice round with your team as part of the preparation and use the Debate Rubric to "grade" your group members.

- Position statement is clear and concise.
- The overall argument is logical and easy to follow.
- Major points strongly support the position statement.
- The evidence provided supports the major points and is of high quality.
- Good eye contact and tone of voice. Kept audience's attention.



DEBATE RUBRIC

Directions: Use this rubric to evaluate debates. Mark scores and related comments in the scoring sheet that follows.

Description	Below Standard (1)	Approaching Standard (2)	At Standard (3)	Above Standard (4)
Overall Argument	<p>Argument lacks logic and is unclear.</p> <p>Argument lacks supporting evidence.</p>	<p>Presents argument somewhat unclearly.</p> <p>Uses at least one supporting piece of evidence.</p>	<p>Presents argument somewhat clearly.</p> <p>Some supporting evidence is provided.</p>	<p>Presents argument extremely clearly.</p> <p>Gives supporting evidence for all points made.</p>
Explanation of Ideas and Information	<p>Does not present information, arguments, ideas, or findings clearly, concisely, or logically.</p> <p>Argument lacks robust supporting evidence.</p> <p>It's difficult to follow the line of reasoning.</p> <p>Uses information that is not in line with the overall purpose.</p> <p>Does not consider opposing or alternative perspectives.</p>	<p>Presents information, arguments, ideas, or findings in ways that are not always clear, concise, or logical.</p> <p>Argument is supported by only some robust evidence.</p> <p>The line of reasoning is sometimes difficult to follow.</p> <p>Uses information that is only sometimes in line with the overall purpose.</p> <p>Attempts to consider and address opposing or alternative perspectives but does not do so clearly or completely.</p>	<p>Presents information, arguments, ideas, or findings clearly, concisely, or logically.</p> <p>Argument is well supported.</p> <p>The line of reasoning is logical and easy to follow and uses information that is appropriate for the purpose and audience.</p> <p>Clearly and completely addresses alternative or opposing perspectives.</p>	<p>Does an exceptional job presenting information, arguments, ideas, or findings clearly, concisely, and logically.</p> <p>Argument is well supported with robust, relevant, and interesting evidence.</p> <p>The line of reasoning is logical, easy to follow, well crafted, and uses information that is appropriate for the purpose and audience.</p> <p>Clearly and completely addresses relevant alternative or opposing perspectives.</p>



DEBATE RUBRIC

<p>Rebuttal and Closing Statement</p>	<p>No rebuttal offered.</p> <p>Makes no arguments against points the other side made.</p> <p>Does not explain why their side has the strongest argument.</p>	<p>Makes one or two points in rebuttal, but the logic is somewhat questionable or not supported by evidence.</p> <p>Makes one or two points against the points the other side made, but the logic is somewhat questionable.</p> <p>Explains why their side had the strongest argument, but the logic is flawed.</p>	<p>Makes some logical points as rebuttals, but doesn't support all points with evidence.</p> <p>Makes some logical arguments against the points the other side made.</p> <p>Explains why their side has the strongest argument, but could give more reasons.</p>	<p>Makes an abundance of logical points as rebuttals, and all points are supported with evidence.</p> <p>Makes an abundance of logical points against the points of the other side.</p> <p>Is thorough and logical in the explanation for why their side has the strongest argument.</p>
<p>Eyes, Body, and Voice</p>	<p>Does not look at the audience or make eye contact.</p> <p>Lacks poise (appears nervous, fidgety, slouchy).</p> <p>Speaks in a way that is hard to understand.</p>	<p>Makes infrequent eye contact with the audience.</p> <p>Shows some poise (limited fidgeting or nervousness).</p> <p>Speaks clearly most of the time, but may be difficult to understand or hear at times.</p>	<p>Keeps eye contact with the audience most of the time—only glances at notes or slides.</p> <p>Shows poise and confidence.</p> <p>Speaks clearly and is easy to understand.</p>	<p>Keeps eye contact with the audience throughout.</p> <p>Shows exceptional poise and confidence.</p> <p>Speaks clearly and in an engaging way that is interesting to listen to.</p>



DEBATE RUBRIC

Name:

Date:

Directions: Use this table to evaluate and comment on elements of a debate. Put an X in the cell that denotes the grade. Use the other cells for comments.

Description	Below Standard (1)	Approaching Standard (2)	At Standard (3)	Above Standard (4)	Score
Overall Argument					
Explanation of Ideas and Information					
Rebuttal and Closing Statement					
Eyes, Body, and Voice					
Total Score					



DEBATE FORMAT GUIDE

Debates typically follow a very specific format and set of rules to make sure that everyone has equal opportunities to argue their positions. This is one possible format. Be sure to have a timer available so that groups stay within the given time limits.

1. Coin toss to determine which side goes first.
 2. Team A has 4-6 minutes to present their position.
 3. Team B has 4-6 minutes to present their position.
-

Break: Each team has 3-5 minutes to prepare a 2-minute rebuttal.

4. Team A has 2 minutes to present their rebuttal.
 5. Team B has 2 minutes to present their rebuttal.
-

Break: Each team has 3-5 minutes to prepare a 1-minute closing statement.

6. Team A has 1 minute to present their rebuttal.
 7. Team B has 1 minute to present their rebuttal.
-

Debate Ends: Winner of the debate is determined by using the Debate Rubric.