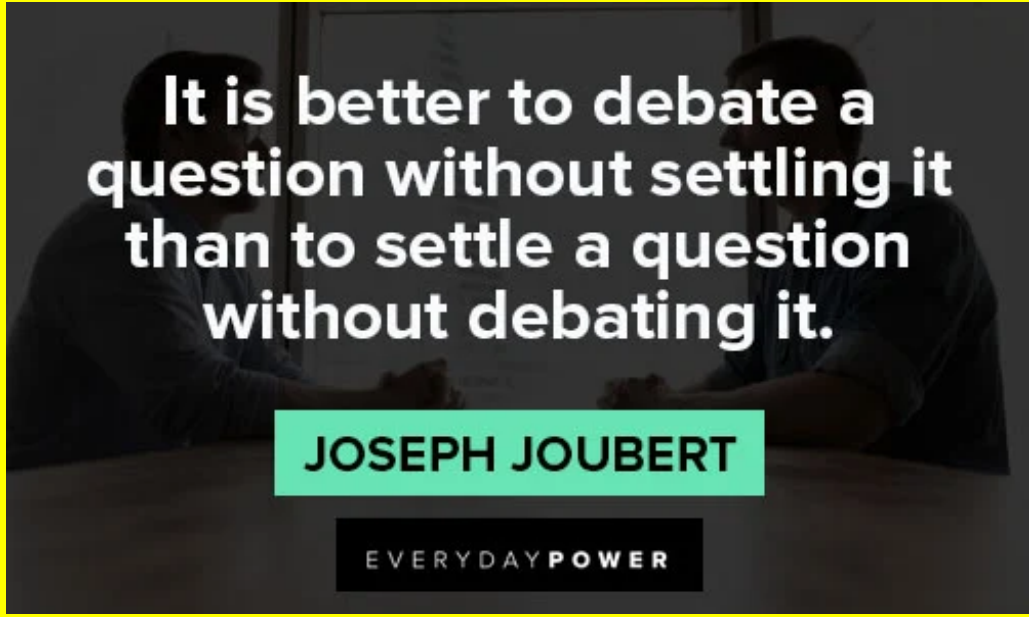# Debating Human Disruptions

It is better to debate a question without settling it than to settle a question without debating it.

JOSEPH JOUBERT

EVERYDAY**POWER**

NISD GT Process Standards

GT Process Standards provide guidance on what GT students should know, understand, and do as part of GT program services. Each lesson makes a connection to specific standards; however, teachers are encouraged to incorporate every standard where applicable.

I. **Creative Thinking**
Ability to look at problems or situations from a unique perspective through the use of imagination and/or innovative ideas

II. **Critical Thinking**
Ability to demonstrate clear, rational, open-minded thinking, informed by evidence

III. **Depth & Complexity**
Ability to dig deeper into a concept and to understand that concept with greater complexity

IV. **Scholarly Inquiry & Research**
Ability to interpret information that leads to new understandings and connects to the world beyond the classroom

V. **Effective Communication**
Ability to convey new learning through the use of written, spoken, and technological media

VI. **Leadership & Responsibility**
Demonstrates initiative, task commitment, and the elements of compromise and diplomacy

Scholarly Habits

- Scholars utilize varied resources
- Scholars exhibit curiosity
- Scholars demonstrate academic humility
- Scholars save ideas
- Scholars ponder the big idea
- Scholars see from different perspectives
- Scholars are always prepared
- Scholars display perseverance
- Scholars set goals
- Scholars take intellectual risks

Language of
the Discipline

deforestation

human disruption

invasive species

overpopulation

habitat
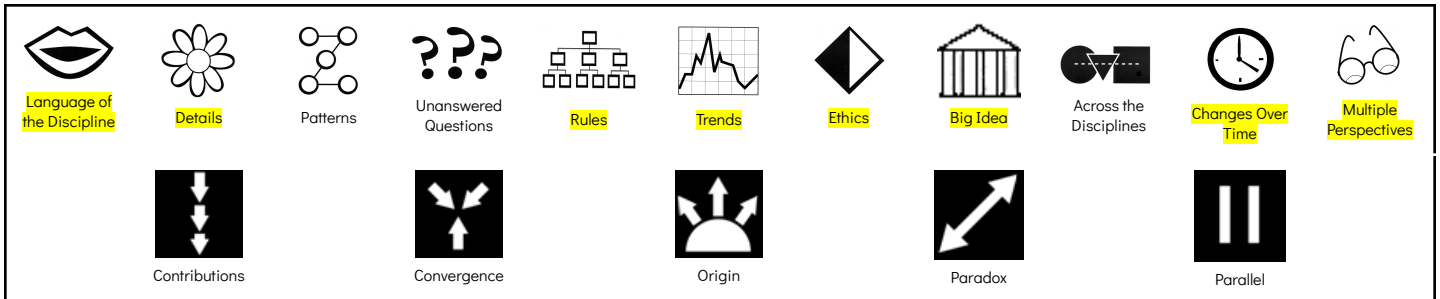
climate change

debate

"pro" and "neg" reasoning

claim

evidence

rebuttal

Depth and Complexity & Content Imperatives

Language of the Discipline	Details	Patterns	Unanswered Questions	Rules	Trends	Ethics	Big Idea	Across the Disciplines	Changes Over Time	Multiple Perspectives
Contributions		Convergence		Origin		Paradox		Parallel		

Thinking like a Disciplinarian

Thinking like a *debater* (a person who argues about a subject, especially in a formal manner).

Universal Generalizations

- Systems have parts that work to complete a task
- Systems are composed of subsystems
- Part of systems are interdependent upon one another and form symbiotic relationships
- A system may be influenced by other systems
- Systems interact
- Systems follow rules

Essential Questions

- What is a system?
- How are the parts of a system related to the entire system?
- How are system models used to predict and understand real world situations?

Supported TEKS

Science

3.2B, 4.2B, 5.2B (Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to analyze data by identifying any significant features, patterns, or sources of error)

3.9ABC, 4.9ABC, 5.9ABC (Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to: (A) observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem; (B) identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field; and (C) describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations.)

3.10AB, 4.10A, 5.10A (Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to: (A) explore how structures and functions of plants and animals allow them to survive in a particular environment; and (B) investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.)

RLA

3.1A, 4.1A, 5.1A (Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to listen actively, ask relevant questions to clarify information, and make pertinent comments)

3.1C, 4.1C, 5.1C (Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively)

3.1D, 4.1D, 5.1D (Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to work collaboratively with others by following agreed-upon rules, norms, and protocols)

3.1E (Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to develop social communication such as conversing politely in all situations)

3.4, 4.4, 5.4 (Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate fluency (rate, accuracy, and prosody) when reading grade-level text.)

3.6E, 4.6E, 5.6E (Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to make connections to personal experiences, ideas in other texts, and society)

3.6F, 4.6F, 5.6F (Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to make inferences and use evidence to support understanding)

3.6G, 4.6G, 5.6G (Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to evaluate details read to determine key ideas)

Character Traits

3.AB (describe how feelings impact decision making and behaviors; identify and practice interpersonal skills, including showing consideration and compassion through listening, sharing, and cooperating with others)

Instructional Plan	Date:

Debating Human Disruptions (3 weeks)

Objectives: Students will understand…
- our Earth is a system, and human disruptions cause the Earth's systems (ex: ecological system) not to function properly.
- a debate is a system.

Learning Experiences	Resources/Materials
Week 1 **Skills Stations (Slide 2)** **Let's Get Curious (Slide 3)** Changes to Earth over time - What did you notice? - What do you wonder? **Skill Focus: Ethics (Slide 6)** Explain to students that we will be focusing on the ethical issues surrounding human disruptions on Earth. View the Byrdseed.tv video on Ethics to refresh understanding of the thinking tool. **School Tour (Slide 7)** Take your students on a tour of your school grounds (especially the playground) looking for examples of how humans have impacted the school's environment. Students can take photos of their findings or record them in a journal, Google Doc, etc. Have students share examples of human impact they observed from the school/playground. Incorporate changes over time into your discussion (ex: By looking at our environment, how do you think this area looked before the school or playground was built? What kind of animals do you think lived here? How has the playground changed since the school opened? How do the sidewalks look different now than when they were first made? etc..) **Intro to Human Disruptions (Slide 8)** Watch One Earth video and have students take notes of examples of global human disruptions they observe (stop video at 3:50).	☐ BI_Human Disruptions Slides Changes to Earth over time Video 🕐 ◆ Byrdseed.tv Ethics **Background for teachers:** Khan Academy - Human Disruptions Types of Disruptions EPA (aquatic) human disruptions Brief/Simple Explanation of Ecosystems One Earth video 👄 🏛 📈 🕐

Have students share their observations from the video and discuss what the big idea of the video was, what trends they noticed in the videos, and how/why they think human disruptions have changed over time.

SEL moment: Ask what the images in the video made the students feel. What did they want to do (actions to take) based on how the video made them feel?

Human Disruptions

Types of Human Disruptions (Slide 9)
Watch Human Disruptions video (Teacher Note: this video can be a little disturbing at first, but it's to make a point).

Have students share examples of different types of human disruption they've heard/seen so far today. If necessary, add and discuss additional human disruptions to the list the students make.
1. Habitat destruction [Deforestation Construction, etc.]
2. Introduction of non-native species
3. Overhunting/fishing
4. Pollution/Environmental Change
5. Global Climate Change
6. Overpopulation

Refer back to the invasive species lesson and recall that invasive species are a human disruption. Reflection questions:
- How is the earth a system?
- What happens when humans disrupt the Earth's systems?

Ask students what ethical issues might be related to human disruption (ex: we need to cut down trees for building our homes, but we need to not cut down trees to help save habitats and prevent global warming).

Research (Slide 10)
Students (solo or in pairs) pick a type of human disruption to research (using the Library Resources in students' portals) and then create a product of their choice (ex: commercial, newscast, song, advertisement, poster, etc.) to encourage people to prevent their chosen disruption. The students' work must explain why the disruption is harmful and give at least 3 negative consequences of the disruption. Bonus (a chance to earn a 4 in performance reports) - students can provide a
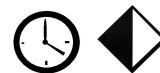
Student Product Example

more environmentally friendly option to their disruption (ex: What housing options might we use so we don't have to cut down so many trees or could we plant gardens/trees on our roofs?). Here is an example of what their video might look like (Example) if they make a video.

Students share/display their creations.

Choose Human Disruptions to Debate
As a class, vote on one of the human disruptions. Students will spend the next 2 days researching, preparing, and debating the topic you voted on.

Alternative: teacher assigns a human disruption that will be debated and tells students what that topic is. You might want to pick a different disruption for each grade level or two for each grade level if you have a large GT population.

Looney Tunes

Week 2: Intro to Debate

CI_Breakout: The Missing Map

Skill Stations (Slide 12)

Let's Get Curious (Slide 13)
Looney Tunes
- What did you notice?
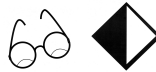- What do you wonder?

Brainpop "Debate"

SEL - Breakout (Slide 14)
For the next two weeks, students will need to work as a team to debate a topic. Let's practice our teamwork and collaboration skills by completing a Breakout!

Debate - What is it? (Slides 15-16)
Use Brainpop "Debate" video to introduce the language of the discipline (debate). Ask students to brianstorm: What is a debate? Debate definition: a debate is a discussion about a subject on which people have different views.

Review CER with students. Remind them to use this with their research. Refer back to CER in the "Science of Logic" lesson if needed.

Assign Debate Topics (Slide 17)
Assign students a side to debate (the pro or neg). Ideally you will have 3-4 students per side. Hint for large schools: If you have a lot of kids in your class, consider splitting them up into groups of no more than 4. You could even have the class split into 2 topics of debate (ex: 4 groups of 3-5 students each with 2 groups debating one topic and the other 2 groups debating the another topic). Your students not involved in the actual debate will be the audience.

Students will use Library Resources (in portal) to research their side/position of the issue. Students need to find at least 3 reasons for and against allowing the debated human disruption to continue, but the more information they gather, the more effectively they can debate.

Students who are for allowing the continuation of the disruption are called the "Pro" and students wanting the disruption to end are called the "Neg." Tell students it is important that students research both sides of the issues in order to better debate (negate) the other side's viewpoint. Researching both sides is also important because in a real debate (ex: high school) the debaters don't usually know ahead of time which side they will be asked to debate, so they have to prepare for both sides. Students will use the Human Disruptions Debate Research template to facilitate their research.

☐ DI_Human Disruptions Debate Re...

How to Debate Politely? (Slide 18-19)
SEL moment: Use J Taylor "Discussion Rules" to help students better understand how to hold a debate (how to agree, how to disagree). Share examples and nonexamples of a debate with students (A debate is … A debate isn't …).

📄 EI_Discussion-Rules.pdf

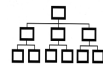Teacher Resource: Debating for Kids

Let's Practice! (Slide 20)
Have your students practice debating politely by doing a short (non-researched) debate on common topics such as: peanut butter vs. jelly, bacon vs. eggs, salt vs. pepper, hot vs. cold, etc.

Research (Slide 21)
This week students will begin/continue researching their assigned topics (in groups) using the "Human Disruptions Debate Research" worksheet, in preparation for a debate next week.

☐ DI_Human Disruptions Debate Re...

Week 3: Debate

Let's Get Curious (Slide 23)
Curiosity week3 : Discuss students' perspectives regarding the given quote about debate: "It is better to debate a question without settling it than to settle it without debating it" - Joseph Joubert.

Rules for Debating (Slide 24)
Review rules for debating with students.
1. Team A has 3 minutes to argue their case.
2. Team B has 2 minutes of rebuttal (argue against Team A).
3. Team A then has 2 minutes to respond to the rebuttal.
4. Sides flip. Team B argues their side for 3 minutes.
5. Team A has 2 minutes of rebuttal.
6. Lastly, Team B has 2 minutes to respond to the rebuttal.

Let's Practice! (Slide 25)
Allow students time to practice for the debate within their team. Students should use the Debate Sentence Stems to help facilitate their debate.

Let's Debate! (Slide 26)
Review respectful listening skills (being an audience) and being a respectful debater. Students debate the human disruption using Debate Sentence Stems as needed.

Teacher Note: Caution: *Do not pick a winner for the debate.* Also, it is recommended to give the opposing team sticky notes during the debate. They can use these to write down any counterpoints they may have as they listen, which helps to limit verbal disruptions.

FI_Debate Sentence Stems

Reflection/Metacognition (Slide 27-28)
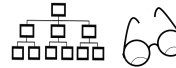Review the Systems Test and then ask students to reflect:
How is a debate a system?
How did you work as a system to debate your topic?
SEL: What emotions did you have during the debate? How did you manage these emotions?
SEL: Do you feel as if you were successful during the debate? What was difficult/challenging during the debate? How did you overcome these struggles?

Extensions
Buckets of Benefits (analogy activity)

AmericanMuseum of Natural History
Awesome habitat restoration lesson plans

EPA Lessons (2 lessons):
https://www.epa.gov/enviroatlas/connecting-ecosystems-and-human-health?
https://www.epa.gov/enviroatlas/introduction-ecosystem-services?