



# ISTE Educator Certification Program

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Google for Education

## Teaching and Learning with Google Gemini

| Lesson Overview                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Lesson Title:</b> Argue With Me! Analyzing and Responding To Counterclaims With Gemini                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Grade Level(s):</b> 11-12th grade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Subject Area(s) (Math, Reading, Science, etc.):</b> English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Estimated Duration (e.g., 45 minutes, 2 class periods):</b> 2-3 class periods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>What value does Gemini bring to this lesson?</b> Gemini will provide students with on-demand support for understanding complex argumentative structures, help with brainstorming and researching opposing viewpoints, and assist them in refining their writing by generating ideas for counter arguments and rebuttals. Gemini will serve as a personalized tool to deepen their understanding of argumentative writing and critical thinking.                                                                                                                                                                                                                         |
| ISTE Standard(s) Alignment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Academic Standards</b> (state, Common Core, NGSS, etc.) ELA Common Core Standard-Illinois: CC.11-12.W.1.a Text Types and Purposes: Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence.                                                                                                                                                                                                                                                                               |
| <b>ISTE Standards for Students</b> (select from a list or provide relevant codes)<br>Knowledge Constructor: students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.<br>Innovative Designer: students use a variety of technologies within a design process to identify and solve problems by creating new, useful, or imaginative solutions.<br>Creative Communicator: students communicate clearly and creatively for a variety of purposes using platforms, tools, styles, formats, and digital media appropriate for their goals. |
| Learning Objectives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Learning Objectives:</b><br>Learning objectives are clear, measurable statements that describe what students should know, understand, or be able to demonstrate by the end of a learning experience. They use specific action verbs (following frameworks like Bloom's Taxonomy) to indicate the desired level of learning and provide a concrete way to assess student achievement, typically starting with "Students will be able to..." (SWBAT) followed by an observable action or outcome.                                                                                                                                                                         |

**Students will be able to: identify the components of a well-structured argumentative claim, including the claim, its significance, and potential counterclaims.**

**Students will be able to: Use Gemini to research and identify relevant counterclaims and evidence for a given argumentative topic.**

**Students will be able to: Integrate counterclaims and rebuttals logically into their argumentative essays using Gemini’s feedback capabilities to refine their writing.**

**Students will be able to: Critically evaluate the strength of opposing arguments and construct effective rebuttals.**

### Use of Gemini

**Use of Gemini:**

Describe how students will directly use Gemini in this lesson to learn or produce something. The use of Gemini should be clear, purposeful, and designed to enhance student learning—not simply included as a novelty. Effective lessons will show how Gemini is embedded in creative and engaging activities that boost student interest, participation, and understanding. For example, focus on how students are using Gemini to:

- Deepen understanding with on-demand support, like explanations of challenging concepts and step-by-step guidance
- Prepare for exams by creating personalized practice quizzes based on hard-to-grasp concepts
- Brainstorm and research ideas, get feedback on writing, and generate citations
- Think critically about a topic

**How will students use Gemini during the lesson? To help deepen their understanding, students will use Gemini to ask clarifying questions about complex argumentative concepts, such as the difference between a counterclaim and a rebuttal, or to get step by step guidance on structuring their arguments. To get feedback on writing and generate citations, students can input parts of their argumentative paragraphs into Gemini to receive suggestions on how to more effectively introduce and refute counterclaims, or to brainstorm ways to strengthen rebuttals. They can also ask Gemini for help in structuring their research questions to find specific evidence. Also, students will prompt Gemini to generate potential counterclaims for their chosen argumentative topics and to suggest credible sources or types of evidence that could support those counterclaims.**

### Procedure

**Procedure:**

**Outline the step-by-step flow of the lesson**, ensuring it is well-organized, easy to follow, and uses clear, concise language. Each part of the lesson should demonstrate a purposeful use of Gemini, with a focus on how students interact with the tool to deepen learning—not as a novelty. Be sure to include any materials needed and how learning will be assessed through both formative and/or summative methods.

**Opening / Engagement Activity: Day 1**

**Bell Ringer (5 minutes)** Project an image or a short, provocative statement related to a current debate in school. Example: Should all high school students be required to complete community service hours? Ask students to write down their initial opinion and one reason why someone might disagree with them.

**Introduction To Argumentation (10 minutes)** Lead a brief discussion about the importance of considering opposing viewpoints in an argument. Introduce the terms: Claim, Counterclaim, Rebuttal, and Evidence. Explain and discuss that strong arguments acknowledge and effectively address counterclaims.

**Detailed Step by Step Lesson Structure featuring student use of Gemini: Days 1 and 2**

**Day 1 Identifying and Researching Counterclaims (45 minutes)**

1. Review the idea of a strong, debatable claim. Have students work in pairs to brainstorm several argumentative essay topics that they are interested in.
2. **Introducing Counterclaims with Gemini (15 minutes)**
  - a. Explain the next step in developing a strong argument is to anticipate and address counterclaims.
  - b. Introduce Gemini as a tool to help them identify potential counterclaims. Model how to use Gemini effectively:
    - i. Teacher prompt example: My claim is High school students should have later start times. Gemini, what are some common counterarguments to this claim?
    - ii. Student activity: students will choose one of their brainstormed claims and use Gemini to generate a list of 3-5 potential counterclaims. They should critically evaluate Gemini's suggestions, selecting the most relevant and significant ones.
3. **Primary Research For Evidence (20 minutes)**
  - a. Explain that for each counterclaim, they will need to consider what evidence could support it.
  - b. Student activity: for each counterclaim identified, students will use Gemini to brainstorm types of evidence or research questions that would help them find supporting details for that counterclaim. For example, if a counterclaim is "later start times with negatively impact after school activities", Gemini might suggest looking for data on student participation in sports or clubs in schools with later start times.
  - c. Teacher circulates: Provide support and guidance, ensuring students are using Gemini purposefully to deepen their research.

**Day 2: Developing Rebuttals and Integrating Into Writing (45 minutes)**

1. **Review and Share Counterclaims (10 minutes):** Students will share one of the counterclaims they identified and the type of evidence they found with the partner or small group.
2. **Crafting Rebuttals With Gemini (20 minutes)**
  - a. Explain that after presenting a counterclaim, they must refute it with a rebuttal.
  - b. Model how to use Gemini to brainstorm rebuttal strategies:
    - i. Teacher prompt example: Given the counterclaim, Later start times would negatively impact after-school activities, Gemini, what are

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| <p>some ways I could rebut this? What evidence do I need?</p> <p>ii. <b>Student Activity:</b> Students will select one counterclaim and use Gemini to brainstorm various strategies for rebutting it. They should consider different approaches, for example, disproving the evidence, showing the counterclaim is less significant, offering an alternative solution. They should also use Gemini to suggest types of evidence that would support their rebuttal.</p> <p>3. <b>Drafting Argumentative Paragraphs (15 minutes)</b></p> <p>a. <b>Student activity:</b> Students will begin to draft a paragraph of their argumentative essay that introduces their claim, presents one counterclaim, and then provides a rebuttal supported by evidence (even if the evidence is only conceptual at this stage).</p> <p>b. <b>Teacher support:</b> Encourage students to ask Gemini for feedback on the clarity and flow of their paragraphs as they draft. For example, they might ask, Does this paragraph clearly distinguish my claim from the counterclaim? How can I make my rebuttal stronger?</p> |  |
| <p><b>Closure / Wrap-Up: Day 2 (5 minutes)</b></p> <p><b>Exit Ticket:</b> Students will submit their draft paragraph, or at least their developed claim, counterclaim, and planned rebuttal.</p> <p><b>Share Out:</b> Students have an opportunity to share a takeaway about their experience using Gemini to strengthen their argumentative writing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <p style="text-align: center;"><b>Assessment</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p><b>Assessment Strategy:</b> Day 1: Observe student interactions with Gemini during counterclaim brainstorming and research. Review student-generated lists of claims and counterclaims.</p> <p>Day 2: Review student drafts of argumentative paragraphs for the clear identification of claims, counterclaims, and rebuttals. Gemini interaction logs and prompts used by students can also be reviewed.</p> <p><b>Summative:</b> A completed argumentative essay (in a subsequent lesson) that demonstrates the ability to introduce precise claims, establish their significance, distinguish them from alternate or opposing claims, and create an organization that logically sequences claims, counterclaims, reasons, and evidence.</p>                                                                                                                                                                                                                                                                                                                                                         |  |
| <p><b>Digital Tools/Resources Used:</b>Google Gemini- on student devices, Google docs- for drafting and sharing, Projector- for teacher modeling.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| <p><b>Evidence of Learning:</b></p> <p>Student generated lists of claims and relevant counterclaims</p> <p>Student drafted argumentative paragraphs that effectively incorporate a counterclaim and rebuttal.</p> <p>Quality of prompts used by students in Gemini, demonstrating critical thinking and purposeful interaction with the AI.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |

| Differentiation and Support                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <p><b>Beginning Learner Modifications:</b><br/>Provide a pre-selected list of broad argumentative topics to choose from. Offer sentence starters or templates for introducing counterclaims and rebuttals. Provide more direct prompts for Gemini to guide their searches for counterclaims and evidence.</p> | <p><b>Advanced Learners Modifications:</b><br/>Challenge students to explore multiple counterclaims and develop more nuanced rebuttals. Encourage them to use Gemini to explore the logical fallacies often associated with weak counterarguments. have them use Gemini to help them anticipate and address potential criticisms of their own rebuttals. require them to identify and analyze the rhetorical strategies used in exemplar essays that effectively address counterclaims.</p> |
| Support Resources                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"> <li>• <a href="#">Purdue OWL: Integrating Counterarguments: A comprehensive resource for understanding and incorporating counterarguments into argumentative writing.</a></li> <li>• Examples of argumentative essays with strong counterclaims and rebuttals.</li> </ul>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ISTE Certified Educator Information                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Educator Name: Lisa Berghoff                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| School / Organization: Highland Park High School                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |