



Website Introduction

Project Website:

<https://serc.carleton.edu/mel/index.html>



The screenshot shows a web browser displaying the project website. The address bar shows the URL <https://serc.carleton.edu/mel/index.html>. The page has a blue header with the title "Evaluating Sources and Claims". Below the header, there is a sidebar with navigation links: "Teach the Earth Portal", "Model-Evidence Link Diagrams Project" (highlighted), "About", "Teaching Resources", and "Professional Development". The main content area features the title "Lateral Reading-Model-Evidence Link Diagrams (LR-MEL) Project" and a text box explaining the project's purpose. Below this is a line graph showing atmospheric carbon dioxide levels over time. The graph has a y-axis labeled "atmospheric carbon dioxide (ppm)" ranging from 180 to 220, and an x-axis labeled "years before today (0 = 1950)" ranging from 400,000 to 0. A horizontal line at approximately 190 ppm is labeled "1950 level". The current level is marked at approximately 215 ppm. The graph shows a significant increase in carbon dioxide levels starting around 1800. Below the graph, there is a section titled "Project Overview" and a section titled "Lateral Reading - Source Evaluation".

Evaluating Sources and Claims

Lateral Reading-Model-Evidence Link Diagrams (LR-MEL) Project

The purpose of our project is to promote students' civic and scientific evaluations of sources and alternative claims when confronted with controversial and/or complex socioscientific issues in the Earth and environmental sciences. We do this by integrating English Language Arts (ELA) and social studies classrooms—focused on *source evaluation*—with science classrooms—focused on *evaluating connections between lines of evidence and alternative explanatory claims*. We are developing, implementing, and testing complementary Lateral Reading (LR) and Model-Evidence Link (MEL) scaffolds that include instructional materials and methods in both social studies and science classrooms. Issues students explore range from climate change and extreme weather to freshwater availability and food security along with many others.



For centuries, atmospheric carbon dioxide had never been above this line

current level

1950 level

atmospheric carbon dioxide (ppm)

years before today (0 = 1950)

Climate Change: Increases in atmospheric carbon dioxide since the Industrial Revolution

Project Overview

The Lateral Reading-Model-Evidence Link Diagrams (LR-MEL) project is investigating how deeper evaluations might promote changes in students' epistemic judgments, including source trustworthiness, and claim plausibility, toward a more civilly-minded and scientific stance. We are also developing and implementing three-day summer institutes and follow-on professional development to help middle and high school ELA, social studies, and science teacher teams use LR (in ELA and social studies) and MEL (in science) scaffolds to facilitate students' critical-analytic thinking, evidence-based reasoning, and core disciplinary knowledge.

Lateral Reading - Source Evaluation



Brief Website Introduction

- Teaching Resources & Professional Development
- All slide decks and handouts posted:
- https://serc.carleton.edu/mel/prof_dev/Philly_institute_agenda_2025.html

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ACKNOWLEDGEMENTS



This research project is supported by the US National Science Foundation (NSF) under Grant Nos. 2201012, 2201013, 2201015, 2201016, 2201017, 2201018, and 2346657. Any opinions, findings, conclusions, or recommendations expressed are those of the authors and do not necessarily reflect the NSF's views.