



Advocacy in Action

A THINKLAW MATH LAB CULMINATING PROJECT (PART 3)

Description

Thinkers will use the data they created in the previous lessons to complete and present an advocacy piece that persuades stakeholders on how math ought to be taught.

Indiana Academic Standards



3.DA.1: Collect, organize, and graph data from observations, surveys, and experiments using scaled bar graphs and pictographs. Solve real-world problems by analyzing and interpreting the data using grade-level computation and comparison strategies. (E)

4.DA.1: Formulate questions that can be addressed with data. Collect, organize, and graph data from observations, surveys, and experiments using line plots with whole number intervals, single- and scaled bar graphs, and frequency tables. Solve real-world problems by analyzing and interpreting the data using grade-level computation and comparison strategies. (E)

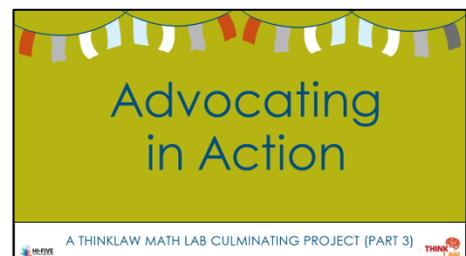
5.DA.1: Formulate questions that can be addressed with categorical and numerical data and make predictions about the data. Collect, organize, and graph data from observations, surveys, and experiments using line plots with fractional intervals, histograms, or other graphical representations that appropriately represent the data set. (E)

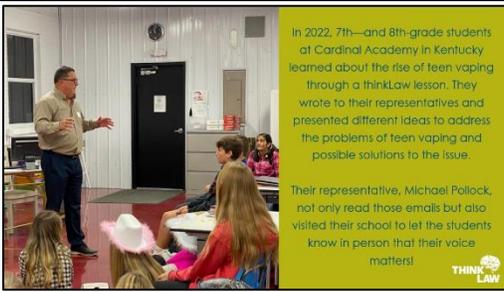
E: Essential IDOE standards

Lesson Materials



- DRAAW+C chart from Part 2
- thinkLaw Student Work Pages
- Writing and Drawing Utensils



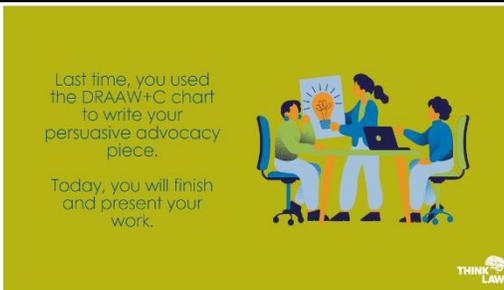


In 2022, 7th—and 8th-grade students at Cardinal Academy in Kentucky learned about the rise of teen vaping through a thinkLaw lesson. They wrote to their representatives and presented different ideas to address the problems of teen vaping and possible solutions to the issue.

Their representative, Michael Pollock, not only read those emails but also visited their school to let the students know in person that their voice matters!

Probing Question:

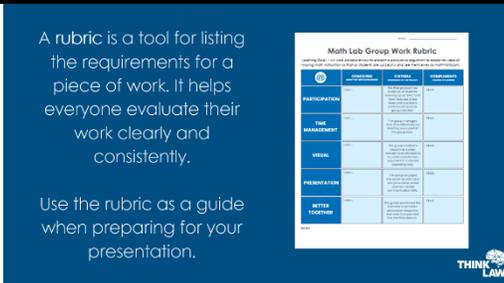
- How can we take advantage of the influence of other stakeholders?
- Besides using facts, what else makes a persuasive argument?



Last time, you used the DRAAW+C chart to write your persuasive advocacy piece. Today, you will finish and present your work.

Teacher Note:

The students may need more time to complete their writing. If that aligns more with your learning goal, you may skip the visual component if you are limited on time or if it does not suit your learning objectives.



A rubric is a tool for listing the requirements for a piece of work. It helps everyone evaluate their work clearly and consistently.

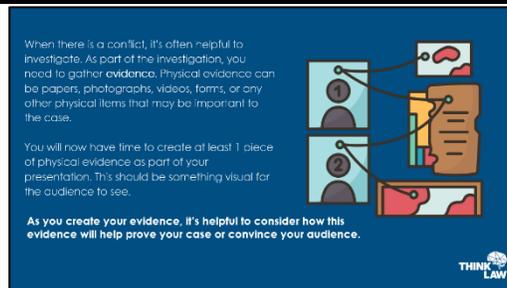
Use the rubric as a guide when preparing for your presentation.

Teacher Note:

This rubric was designed as a **single-point rubric**. The middle column describes the expected standard, with space on either side for notes on areas where the student's work falls short or exceeds expectations. This is a type of formative assessment that you can align with your learning objectives through your feedback. The rubric is editable if you choose to

make it a summative assessment and adjust the categories or expectations.

Review the rubric with students to ensure they understand the expectations and what they will receive feedback on.



When there is a conflict, it's often helpful to investigate. As part of the investigation, you need to gather **evidence**. Physical evidence can be papers, photographs, videos, forms, or any other physical items that may be important to the case.

You will now have time to create at least 1 piece of physical evidence as part of your presentation. This should be something visual for the audience to see.

As you create your evidence, it's helpful to consider how this evidence will help prove your case or convince your audience.

Teacher Note:

As a class, you can create a list of acceptable visual products. Thinkers can generate their own ideas if they justify how they help build their case.

Some examples could be:

- A video skit of students acting out the “wrong” way to teach math versus their solution for teaching math in a way that's helpful to all students.
- Creating a poster or worksheet that resembles the components the math lab features because they feel those components are how math should be taught.
- A graph that helps demonstrate that the way math is currently being taught is not working for all students.

THINK LAW

Sharing your work publicly can be intimidating. Despite that, why is advocating important?



How does having a growth mindset help you when presenting?

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How does having a growth mindset help you when presenting?



Presentation time!

THINK LAW

Presentation time!

Teacher Note:

- You can have thinkers share amongst their peers or invite school or district leadership and administrators or parents to observe and celebrate the hard work.
- Once presentations are completed, students could email their work to the National Council of Teachers of Mathematics at resources@nctm.org, with your help.

Rubrics help us evaluate work. How would you score yourself? Do you think your teacher would score you differently? Why or why not?



What feedback would you give yourself?

THINK LAW

Rubrics help us evaluate work. How would you score yourself? Do you think your teacher would score you differently? Why or why not? What feedback would you give yourself?

Teacher Note:

Students can complete a self-evaluation to accompany your evaluation of their work. The rubric can also serve as a goal-setting tool for the next project.

You have completed several Math Labs, identified how your math mindset has shifted, and presented your idea to help math instruction be better for all students. How would you complete this sentence?



Math classes should include more _____ to ensure our math identity and confidence continue to grow.

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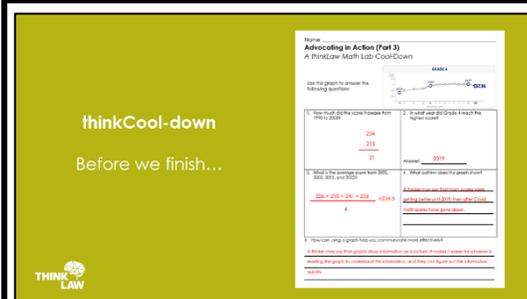
Math classes should include more _____ to ensure our math identity and confidence continue to grow.

Thinkers may say math should include more debates, real-world connections, exciting connections, or open-ended questions.



You did it! Congratulations on all your hard work; we are proud of you!

Let's take a minute to review. What steps did you take to complete this project?



Instructor's Note:

Within thinkLaw Math Labs, you'll find 5 cool-down problems strategically integrated to demonstrate learning or a post-activity assessment.

The goal of a math lab is to help thinkers redefine their math identity – reshaping how they perceive and interact with math.

Stretching the Lesson:

- **Premortem**- Once students complete their visual and are ready to present, have them go through a **premortem**. A premortem is a business strategy before launching a new product or service. Employees think about a potential future scenario where the idea failed. They brainstorm all the reasons the project might have failed. Students can premortem their idea, which gets implemented in the school next year but fails. Why are all the reasons it failed? What are all the things that could go wrong? This is especially helpful if the audience they are presenting can ask them questions.
- **Stakeholder Analysis**—Thinkers can create a list of highly interested and influential stakeholders in their educational environment and personally invite them to hear their presentations.