2026 MidMCM
Problem C: Redesign Education
Note: Only teams with all members younger than 14 ½ years old may choose Problem C.



Image Credit: Adobe Express

Education has been a part of civilization since ancient times. The purpose of education has evolved over time and continues to evolve as the world changes. The purpose of education also varies from civilization to civilization, from country to country, and from culture to culture. In fact, education serves many purposes in modern societies. Education systems are designed to fulfill the needs of societies by achieving the purposes of education for that society. Acknowledging that current education systems all over the world might not be achieving the current needs of society as effectively as possible, the ***Committee on Making Awesome Pedagogy (COMAP)*** has asked your team to design a new educational system.

Requirements

1. ***Understand the Problem.***
    - Purpose of Education: In your introduction, clearly lay out your philosophy about what you believe the purpose(s) of education should be. The purpose(s) you identify should guide your modeling process in the design of your educational system.
    - Background/Research: You may not be familiar with education systems other than the one you have experienced. Research a few other educational systems to identify different features of educational systems and how they achieve their purpose. What did you learn from your research that will be useful in constructing your model of a new educational system? What novel or unique ideas for education do you have that you would like to include in your educational system?

2. ***Create your model to design a new educational system.***
    - Create a model for a new educational system that serves your purpose of education. Your model should be specific to **middle school education**. Your model should address multiple aspects of the design of educational systems including the content that will be addressed, how time will be allocated to learning, and the learning environment where education will take place.

- Content Model: Your model should identify educational content (e.g., topics, subjects, skills, etc.) that will be included in your educational system. The results of this part of the model should be presented in a 1-2-page curriculum guide.
- Time Model: You should construct a model of how educational time is spent in your system. How will time be allocated to your identified educational content? What will a typical school year/semester/month/week/day look like in your system? The results of this part of the model should be presented in a 1-2-page academic calendar.
- Physical Model: You should construct a model of what the physical learning environment of your educational system should look like. As you work on constructing this part of the model, you should consider the physical location(s) where learning will take place, the educational tools, resources, materials, and/or technology that will be important to your educational system. The results of this part of the model should be presented in a 1-2-page brochure for your learning environment.

3. ***Apply your model.*** Create a 1-page advertisement or letter addressed to your fellow **middle school students** to convince them why they should want to participate in your educational system.

4. ***Expand Your Model and Reflect on Your Analysis.*** Reflect on how your model for middle school education can be applied to the rest of the education system for students ages 5-18.

5. ***Share Your Model and its Results.*** Write a 1-2-page letter to COMAP that explains the design of your educational system. Be sure to include how each part of your model is designed to achieve the purpose of education that you identified at the beginning of your paper.

Your PDF solution of no more than 25 total pages should include:

- One-page Summary Sheet.
- Table of Contents.
- Your complete solution.
- Non-technical documents:
    - 1-2 Page Curriculum Guide
    - 1-2 Page Academic Calendar
    - 1-2 Page Brochure
    - 1 Page Advertisement or letter to Peers
    - 1-2 Page letter to COMAP
- Reference List
- Report on Use of AI Tools (If used does not count toward the 25-page limit.).

Glossary

Middle School Education: education for 11-14-year-old students

Middle School Students: students who are 11-14-years old

There is no specific required minimum page length for a complete MidMCM submission. You may use up to 25 total pages for all your solution work and any additional information you want to include (for example: drawings, diagrams, calculations, tables). Partial solutions are accepted. We permit the careful use of AI tools, such as ChatGPT, although it is not necessary to create a solution to this problem. If you choose to utilize AI tools, you must follow the COMAP AI Tools use policy. This will result in an additional AI use report that you must add to the back of your solution file and does not count toward the 25 total page limit for your solution.

Guidance for MidMCM

COMAP has a Judges' Commentary article along with excerpts from top rated papers to serve as exemplars from the 2025 MidMCM contest available. The commentary article provides guidance to both advisors and students. We also provide the following general guidance about MidMCM submission organization.

Solutions must be in PDF format and submitted in one PDF document. This does not preclude MidMCM teams from doing mathematics, graphs, tables, sketches, etc. by hand and including pictures of their work in the single PDF document submission. As students move to high school and the HiMCM, we expect that submissions will be typed. For the MidMCM, advisors may technically assist students in putting their solution components into one PDF format file for submission.

As with HiMCM, there is a 25-page limit for the submission document. This does not mean your solution must be 25 pages. A shorter submission is certainly acceptable. All portions of your submission (text, graphs, tables, charts, pictures, etc.) must be within **one** PDF document that is 25 pages or less. We accept partial solutions. Then, if you have utilized any artificial intelligence tools, such as ChatGPT or translation software, you will append a Report on the Use of AI Tools after your solution – that report does not count towards the 25-page limit on the solution portion of your PDF.

Optional Paper Layout In general, a complete solution submission may be organized as follows. Teams are welcome to adjust their submission format to meet the needs of their solution method and communication style.

Summary Sheet – Write this summary after you have done all your work. This one-page summary is Page #1 of your solution document. It provides an overview of your work, including the problem, your approach, and actual results.

Table of Contents – List the major items in your solution document to show the organization of your paper.

Introduction and Restatement of the Problem – Introduce the problem. Restate the problem and requirements in your own words.

Assumptions with Justifications – State any assumptions you made to simplify and solve the problem and state why you made those assumptions.

Presentation of Model and Solution – Ensure you address all requirements and describe what you are doing in solving the problem. Show and explain all your work, especially the model you created or selected and why. How it was applied. Use representations that help you tell the reader how you solved the problem (for example: equations, tables, graphs, pictures, etc.).

Analysis of Your Work – Describe the implication of your work. Perform a sensitivity, which means to adjust or remove an assumption to see its impact on the result. Address any strengths (good points) and limitations (weaknesses) of your model and solution.

Concluding Paragraph – End your solution paper with a final concluding paragraph that summarizes your results and/or makes recommendations for future work.

Include all 1-2 page documents and memos, if not already included earlier.

Reference List – List any sources that you used to solve the problem (for example, websites, AI tools, scientific, newspaper or magazine articles, etc.).

Report on Use of AI Tools – This only applies if you used AI tools such as ChatGPT. These additional pages do not count toward the 25-page limit for the rest of your submission.