WIMI Open: Wide Minds will Find EcoVirtual STEAM Solutions towards Climate change

Students Community Science Projects Guide

By: Eurasia Institute of Research Association and Development

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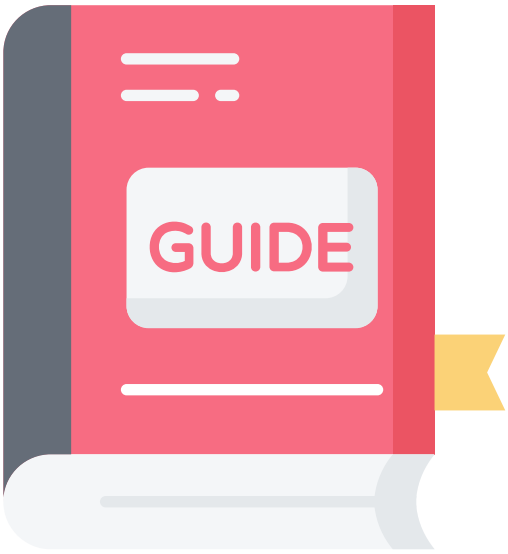
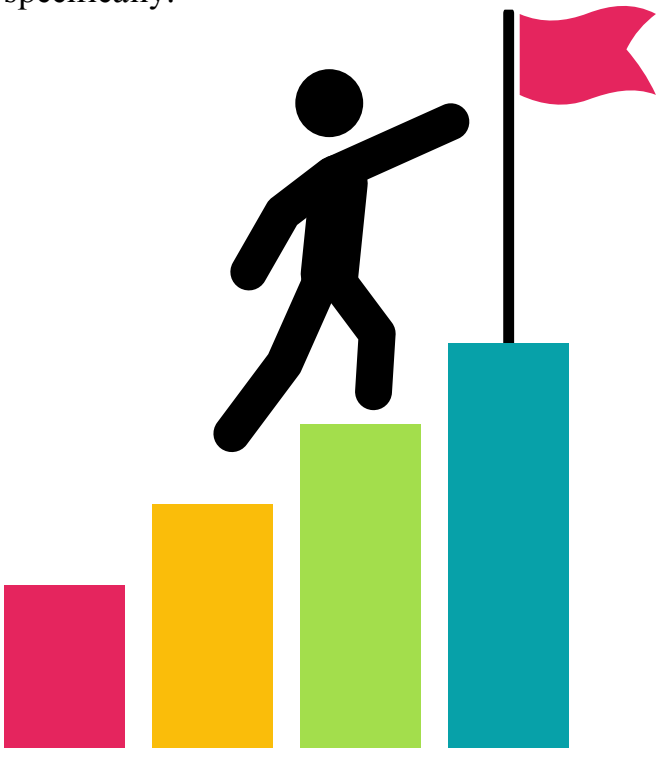
Purpose of this Guide



This guide is meant to help student teams get ready for their Community Science Project presentations at school, on a national level, and on an international level. It meets the Award Criteria and gives clear, step-by-step help with planning, making content, designing, working together, and giving a presentation.

This guide will help you get ready for, construct, and give a great presentation for your Community Science Project (CSP). It is can be used as a roadmap. Here is what this guide can help you with specifically:



- Know what the formal award criteria are and how to meet them.
- Make sure your content is organized such that your climate solution is evident.
- Use your STEAM expertise wisely.
- Learn how to present in front of a group, verbally, and visually.
- Confidently give presentations at school, across the country, or throughout the world.

Your Presentation Goals

Your presentation is not merely a summary of your project; it is an opportunity for your team to educate, inspire, and persuade others about your climate solution. A compelling presentation will demonstrate not only the actions you took, but also the significance and potential impact of your actions. The following is a method for achieving each of your primary objectives:

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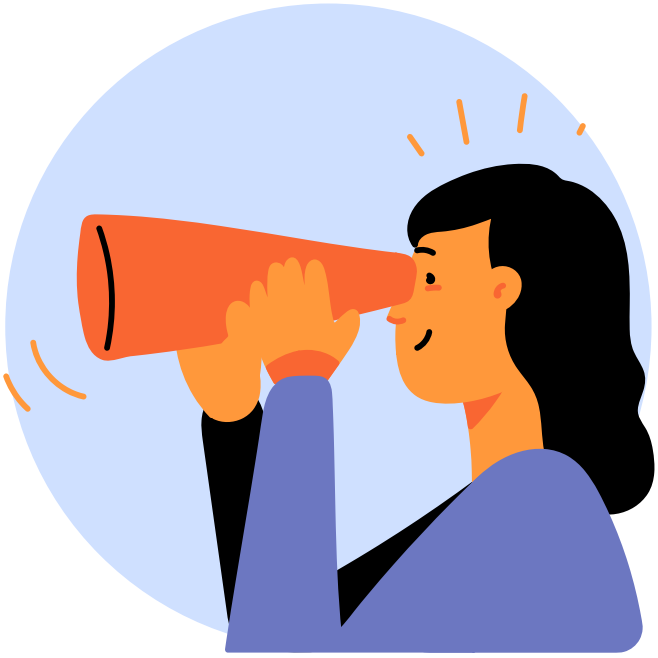
Inspire the Audience with a Clear Vision of the Problem and Your Solution



- You should make the audience care deeply about the issue you chose. They need to understand the urgency of the problem and feel hopeful and excited about your solution.
- How to Do It:
- Begin with an impactful introduction. Begin your presentation with a personal experience, a local news story, or a startling statistic.
- For instance, "Did you know that 92% of the air in our city is classified as polluted?" Upon commencing our investigation of traffic emissions in the vicinity of our school, we discovered this information.
- Narrate an engaging narrative; elaborate on the manner in which you identified the issue within your community. Use personal anecdotes, photos, or narrative to make it more relatable.
- Keep your solution simple and straightforward to comprehend; provide a clear explanation. Utilize "before and after" visuals or diagrams to illustrate the transformation that your project induces.
- Exercise caution when employing emotional appeal. Inspire your audience to experience a sense of urgency, concern, or optimism.

Deliverables Checklist:

- Clear description of the problem
- Easy-to-understand solution summary
- Opening hook or story
- Strong visual or emotional element

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Demonstrate the Depth of Your Research and Application of STEAM

You must show that your project is backed by real knowledge and that you used Science, Technology, Engineering, Arts, and Mathematics meaningfully. How to Do It:

- Explain your research process step by step.
    a. Where did you gather information?
    b. What problems did you face in the research stage?
- Break down your STEAM approach:

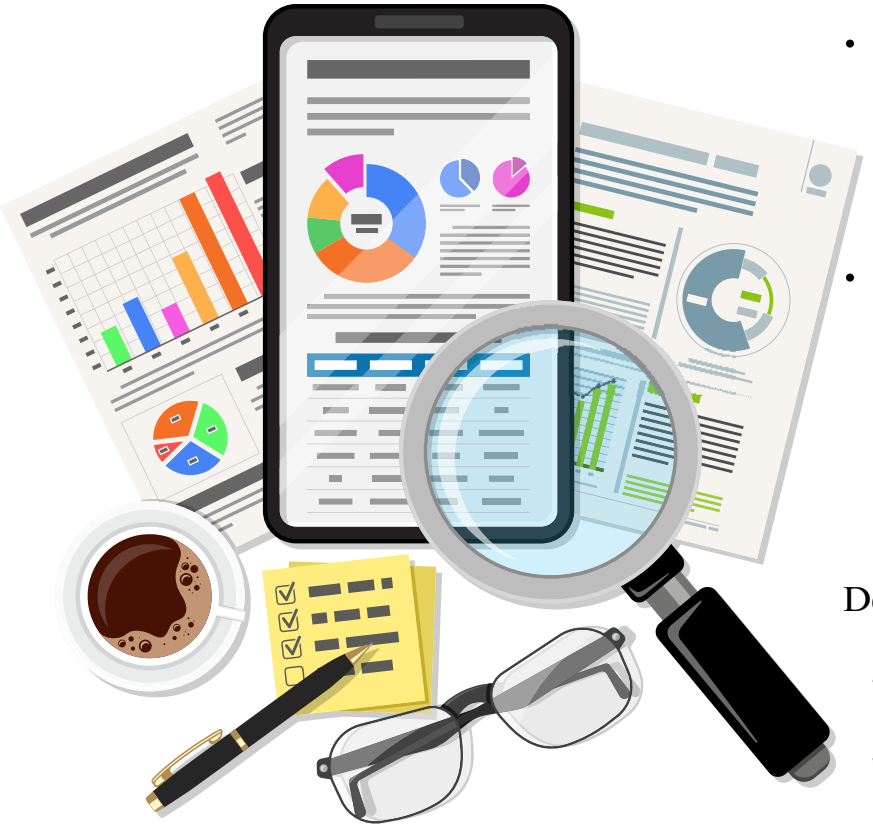
  Science: What environmental or biological principles did you apply?

  Technology: Did you use sensors, apps, or simulations?

  Engineering: Did you design or construct a tool, structure, or system?

  Arts: Did you use design, video, or visual storytelling?

  Mathematics: How did you calculate data, model systems, or make predictions?



- You can use graphs, charts, and photos, but make sure to try to explain them in a way that it is easy to understand for others.
- Use technical vocabulary but make sure you explain it! Make sure everyone understands the terms you use.

Deliverables Checklist:

- Clear outline of research process
- Explanation of how each STEAM area was used
- Graphs, photos, or visual evidence
- Defined key terms and vocabulary

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Showcase Your Creativity and Teamwork

You should highlight how your team worked together in original ways to create a solution that is unique, engaging, and feasible. How to Do It:

- Walk the audience through your creative process:
    a. How did the idea evolve?
    b. What options did you consider before choosing the final idea?
    c. What was the “aha” moment for your team?
- Try the use of visuals to show innovation, this can be done by including early sketches, failed attempts, design drafts, or mood boards or you did something unusual or original (e.g., recycled materials, performance art, coded a mini app), showcase it.

- Explain roles and responsibilities: Who led which part of the project? Did you use a tool (like Trello, Google Docs) to collaborate? Also don’t hesitate to celebrate your group’s diversity. How did different strengths and ideas come together?

Deliverables Checklist:

- Timeline of how the idea developed
- Visual documentation of your process
- Explanation of team roles and workflow
- Highlighted creative or original features

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Prove Your Project's Impact and Potential for Sustainability

You need to prove that your solution makes a real difference not just in theory, but in practice and that it can last and grow over time. This can be done by:

- Showing evidence of real change, not that your project immediately changed something, but how can that project, if implemented, make change happen.
- Quantify impact wherever possible How many liters of water saved? How many students involved? How many people reached by your campaign?
- Try your best to explain your sustainability plan by mentioning details like Who will maintain the project? What are the costs and how can they be funded? Can the project be replicated in other schools or cities? Also you may demonstrate long-term thinking of how will this project grow in the next 6 months if implemented?

Deliverables Checklist:

- Real-world results or testimonials
- Data or evidence of effectiveness
- Clear sustainability or growth plan
- Explanation of long-term goals

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Engage Your Audience with a Well-Prepared and Confident Presentation

The manner in which you display your project is equally significant as the content you present. The listeners can be motivated and convinced by a confident, organized, and impassioned presentation. Here are a few things to keep in mind:

- Practice, practice, practice! : rehearse at least 3–5 times, make sure you time your presentation so that it is not too long and not too short, also, in a team since there will probably be more than one speaker make sure you practice the transitions between speakers.
- Use your body and voice effectively: make eye contact, change your tone and pace, avoid speaking in a monotone, stand tall and use hand gestures naturally.
- Prepare your visuals: Use slides with images and keywords, not full paragraphs, keep color contrast high and fonts readable.
- Engage the audience: Ask rhetorical questions when you can and use direct language to grab the audience attention like " Imagine this" or " What if we could" giving a tone of inviting people to take action.

Deliverables Checklist:

- Practiced timing and flow
- Confident delivery and body language
- Clean, effective slide design
- Audience engagement strategy

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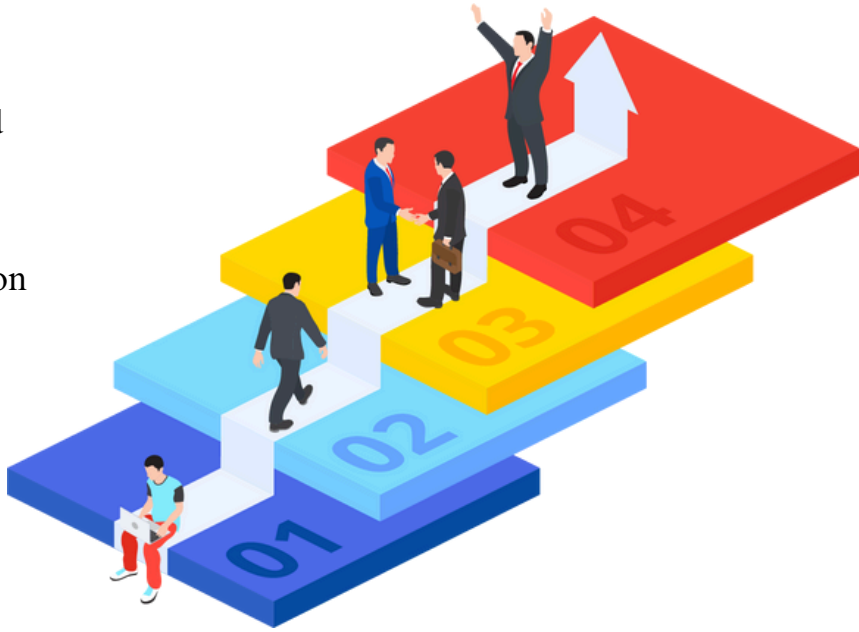
Preparing as a Team: Planning & Workflow Strategies



Students frequently encounter difficulties in the areas of time management, task organization, and responsibility allocation. This section assists them in the establishment of structure and the prevention of disorder.

What should be incorporated:

Let's look at the following examples of Team Roles:

Project Manager: Maintains the team's schedule.

Research Lead: Collects and summarizes data.

Tech/Engineering Lead: Responsible for the supervision of technical components or the construction of structures.

Designer/Artist: Responsible for the creation of visuals and communication materials.

Presenter(s): Develop and execute the presentation.

Instruments for Planning: Here are ways that you can plan and monitor your CSP progress:

- Google Calendar or timeline
- Documents that are shared for the purpose of monitoring progress

Group Work Tips:

- Conduct brief meetings on a consistent basis.
- Decide through consensus or vote.
- Establish check-ins and deadlines.
- Join in the celebration of minor victories!

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Anticipating Questions & Handling Q&A Like a Pro

The presentation of your Community Science Project is only one aspect of the challenge. Immediately following your formal presentation, you will likely be required to respond to a series of inquiries from judges, teachers, or audience members. This Q&A session provides an opportunity to demonstrate the breadth of your comprehension, your self-assurance, and your collaborative abilities. However, this is the most intimidating aspect for numerous student teams due to its spontaneity and unpredictability. However, with the appropriate perspective and some preparation, you can transform this into one of the most powerful components of your presentation.

Why does it matter?

Judges are not attempting to "catch you out." They pose inquiries to gain a more comprehensive understanding of your thought process, the extent to which you are knowledgeable about your project, and the extent to which you are capable of introspection. The award assessment criteria include critical thinking, communication skills, and ownership of your undertaking, all of which are demonstrated by good answers. So, rather than being apprehensive about inquiries, cultivate the ability to perceive them as opportunities to shine.

Common Questions You Might Hear

While it is impossible to anticipate each query, a significant number will correspond to a few common categories. Judges may inquire about the origin of your concept, such as, "What motivated you to develop this idea?" or "How did you develop this topic?" Others may concentrate on obstacles and alternatives, such as "What would you modify if you were able to redo it?" or "Have you considered alternative solutions?" There may also be technical or impact-related inquiries, such as "How do you know your solution is effective?", "What data did you use to support this?", or "How many individuals could this potentially assist?" Finally, do not be taken aback if you are questioned about collaboration“Who was responsible for what in the team?”, “Did you receive assistance from a teacher or expert?”, or “How did you resolve disagreements?”

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How to Give Strong Answers

Staying composed and taking one's time are of crucial importance. It is unnecessary to respond immediately upon a question being asked. To hesitate, contemplate, and then speak is entirely acceptable even professional speakers do so. Taking a breath actually enhances your confidence, not diminishes it. The STAR method, which stands for Situation, Task, Action, and Result, is an excellent approach for structured responses. For instance, in response to inquiries regarding your ability to surmount obstacles, you might respond as follows:

At first (Situation), we encountered difficulty in obtaining precise data on neighborhood pollution (Task). Consequently, we resolved to collect our own data using our simple DIY air quality monitor (Action). Ultimately, we obtained dependable data that strongly influenced the direction of our project (Result)."

Do not be troubled if you are uncertain about the answer to an inquiry. It is permissible to respond, "That is an excellent inquiry; we are right now making inquiries regarding that subject matter. We would appreciate more information." This demonstrates the qualities of honesty, inquiry, and maturity, all of which are highly regarded.

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Conclusion

Your Community Science Project is not merely a school assignment; it is your vision for a better future and your voice in the climate conversation. You have made significant strides toward change by engaging in deliberate research, developing innovative solutions, and fostering effective collaboration. Currently, your responsibility is to convey that journey with clarity, purpose, and assurance.

This guide has equipped you with the necessary resources to create, organize, and deliver a presentation that is both informative and motivating. Remember that you are the expert on your endeavor, regardless of whether you are presenting to a global audience, judges, or classmates. Speak with enthusiasm, provide encouragement to your colleagues, and have faith in the collaborative process you have established. Your concepts are significant. Your conduct is significant. Additionally, your presentation serves as the catalyst for others to undergo transformation. Make your moment count by stepping into the spotlight.

Good luck!

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