TEACHER AT-A-GLANCE: SCICOMM ORGANIZER

The SciComm (**"science communication"**) Organizer is designed to support students in planning and organizing their science communication. Students can use this resource for a range of scicomm, including artwork, blog posts, comics, lab reports, posters, presentations, songs, videos, and more. Depending on your expectations, students can write their responses in complete sentences, bullet points, or draw out their ideas. You can make copies of this organizer for students to write on, or you can use it as a print or digital template and have students record responses in their science notebooks.

This organizer prompts students to reflect on their goals for scicomm and how to meet them. Using the "5W and H" framework students may be familiar with, they will consider the following as they plan and organize their own scicomm:

- **What** - the topic
- **Who** - the audience
- **How** - the format
- **Why** - the reasons
- **When and where** - the (assignment) details

While we developed the SciComm Organizer to be a classroom assignment, we hope students use it in creative ways. For example, they can use it for community engagement: from writing newspaper articles to creating social media posts for your school-approved channels about what they are learning in science!

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SCICOMM ORGANIZER

People communicate science every day - from scientific articles, to pharmaceutical commercials, to weather reports, to influencers on social media, to art campaigns, and even in day-to-day conversations! "Science communication" or **"scicomm"** describes how people share scientific knowledge with different audiences, such as other scientists or the general public. Since scicomm takes on many forms, there isn't one ideal or best way to approach it. For example, with a lab report for science class, you likely follow a set process to explain an experiment: start with the Introduction, then present the Materials and Methods, Analysis, and Discussion/ Conclusion. This format often serves a specific purpose (describe an experiment) for a specific audience (often your science teacher) for a particular goal (demonstrate your understanding of a learning target). However, the structure and tone of a lab report isn't an effective approach for every form of scicomm. For example, imagine trying to persuade the public to recycle plastic using a traditional lab report - an art campaign or social media post might be more effective.

Because there isn't just one way to do scicomm, how do you know if something is "good" at communicating science? Should it be accurate, creative, engaging, ethical, impactful, meaningful, relevant, or something else? While there are some shared characteristics across different forms of scicomm, the answer to the first question depends on the communicator (artist, author, blog writer, comic, singer, etc.) and audience. Thus, creating **quality** scicomm takes thoughtful planning, which is why we created this **Scicomm Organizer**.

This resource will help you plan and organize your scicomm. For each section (5 total), respond to the corresponding questions. If you are using this for the first time, it may be helpful to work through the sections in order. Depending on your teacher's instructions, you may write in full sentences, add bullet points, or draw. This organizer is to help you brainstorm and capture your ideas - it doesn't have to be perfect! Once you have completed all sections, it is time to start creating. It is all right - and normal - to not follow this organizer exactly as planned once you start your project. Perhaps the format (blog, comic, poster, video, etc.) doesn't align with your goals, or you need to rethink your audience. Looking at your work through a constructive lens and being open to change can help you produce quality scicomm.

STUDENT EXERCISE

Instructions: Read the descriptions below. This will help you respond to the questions on the following pages.

SECTION ONE: WHAT?

Sometimes, you need to add lots of details or background information to help your audience understand a topic. Other times, too many ideas may confuse or distract your audience from your main point. As you think through **what** to communicate, ask yourself whether the idea is big (main point), supporting, or extra.

SECTION TWO: WHO?

Just like you might change your word choice or tone when talking with peers versus a teacher, "knowing" your audience helps you design scicomm that grabs their attention and meets their expectations or needs. While you will not know *all* the background knowledge, interests, experiences, etc. of your audience, reflect on **who** you want to communicate to. What might the audience want to learn or experience? What might they already know or think? It is also necessary to think about your own experiences, ideas, interests, knowledge, skills, etc. because these will influence your work. We all bring our own perspectives and voices to science.

SECTION THREE: HOW?

There are many types of scicomm: art (dance, drawings, paintings, pictures, sculptures, etc.), books (fiction or nonfiction), lectures, podcasts, music, videos (features or reels), written reports, and so on. Different formats may appeal to different learning styles: auditory, visual, written, or kinesthetic, and combining these styles can reach a broader audience. Identifying **how** you will present your ideas should go beyond simply identifying the format. Include details such as the length or duration and mode of presentation (physical or digital).

SECTION FOUR: WHY?

As the communicator, consider your motivation for the project so that you can accomplish what you set out to do, whether that is to educate, critique, inspire, persuade, etc. While you may create scicomm for school, extracurriculars, or entertainment, the **why** in this section refers to how you want your audience to respond.

SECTION FIVE: WHEN and WHERE?

Planning **when** you need to share your work and **where** you'll share it (physically or digitally) are key steps in this organizer. Some projects may take more time than others, so it's helpful to be realistic about how much time you will need - especially to produce quality work.

STUDENT EXERCISE

SECTION ONE: WHAT?

- ☐ What is your main idea? Describe it in 1-2 sentences.
- ☐ What key words, definitions, or descriptions does someone need to know to understand this?
- ☐ What fun facts can you include? Think of dates, locations, people, etc.
- ☐ What sources are you using (class materials, textbooks, online resources, etc.)?

SECTION TWO: WHO?

- ☐ Who are you as a communicator? What experiences, interests, knowledge, skills, etc. do you bring to this project?

SECTION TWO: WHO? (*Continued*)

- ☐ Who is your audience? For example, what is the target age (younger grade level, peer, teacher, etc.) or role (educator, hobbyist, scientist, etc.)?

SECTION THREE: HOW?

- ☐ How will you mostly communicate your topic? For example, blog, comic, poster, video, etc.?
- ☐ How else will you communicate your topic? What other resources will you create or use - for example, adding pictures to a video?
- ☐ How will you design your scicomm? What will it feel, look, sound, etc. like?
- ☐ How can you change *what* you're communicating, or *how* you're communicating, to make sure your audience can engage with and understand the scicomm?

SECTION FOUR: WHY?

- ☐ Why are you sharing this science? Is your goal to educate, critique, inspire, persuade, etc.?
- ☐ Why is this your goal?
- ☐ Why did you choose your specific audience?
- ☐ Why did you choose your particular format? Is it because it's a style you're interested in, because you think it will be effective, because it resonates with the audience, etc.?

SECTION FIVE: WHEN and WHERE?

- ☐ When is this scicomm due? How much time do you think it will take to create this?
- ☐ Where will you share this? Do you need a physical copy, or can you upload a digital copy?