

## The Poster Presentation

The chemistry portion of your Semester 2 Integrated Project will end with a Poster Presentation on Wednesday, March 23. Posters are widely used in the academic community. Most professional conferences include poster presentations as part of their program. Research posters summarize research concisely and attractively to help publicize it and generate discussion. The poster is a mix of a brief text, tables, graphs, diagrams, and photos. The poster is a snapshot of your work intended to invite a passerby to engage in a dialog about the work. On the evening of the Maker Fair, you will stand by the poster display while parents can come and hear you describe your project and product.

### What Makes for a Good Poster?

- Important information should be readable from about 6 or more feet away
- Use large text (your text should be at least 24 pt; headings 30-60 pt; title > 72pt.)
- Title is short and draws interest
- Word count of 800 words or less
- Text is clear and to the point; use less sentences/paragraphs and more notations
- Use of bullets, numbering, arrows, and headlines to make it easy to read
- Convey your message visually with tables, graphs, diagrams, photos, etc.
- Effective use of visuals, color and fonts
- Consistent and clean layout; well-thought out organizational format
- Use white space; don't crowd or cram information. The poster is your tool, not your paper
- Comfort in knowing that you will stand beside your poster and use to describe the project

### What Process Should be Used to Create a Poster?

- Many students use Microsoft PowerPoint to design posters. Be sure to begin by setting the page size to your final poster size.
- Accumulate/create visuals – Graphs, Charts, Tables, Code Samples, Photos, Diagrams
- Print ... Print in color where applicable and attach to poster using tape.
- Do **NOT** (that was do **NOT**) write anything on the poster. Your names should be on the poster but printed on paper.

### A Great Idea:

Search Google Images for "scientific poster examples". You will find an endless supply of examples.

**CAUTION:** Some are good and some are bad.

### Three Useful Resources:

Great Guidelines: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1876493/>

Another Great Resource: <http://colinpurrington.com/tips/poster-design>

Critiques and Advice: <http://betterposters.blogspot.com>

## **Adapted from Northern Arizona University**

<https://nau.edu/undergraduate-research/poster-presentation-tips/>

### **A good poster will**

- Match the audience knowledge base and interests
- Focus your message – what is the one thing you want people to remember?
- Convey your message visually
- Be readable from about 4 - 6 feet away
- Be clearly organized

### **Poster content**

Posters typically include many of the sections listed below (starred items are required).

- Title ... make it catchy
- Authors/Participants
- Research question/s\*
- Materials, approach, process, or methods\*
- Results/conclusions
- Problems, Working Solutions, Suggested Solutions, Future Work
- Contact information (Twitter, Blogger page)

### **Poster design tips**

Consider the following tips when designing your poster.

- Most students use Microsoft PowerPoint to design posters. Be sure to begin by setting the page size to your final poster size.
- Use large text (your text should be at least 24 pt; headings 30-60 pt; title > 72pt.)
- Do not use more than 2-3 font styles total
- Use fonts that are easy to read (such as Times New Roman, Garamond, and Arial)
- Avoid jagged edges: left-justify text within text boxes or fully justify blocks of text
- Avoid too much text (no more than 800 words max) and undefined technical jargon (depending upon your potential audience)
- Choose colors carefully and pay attention to contrast. If in doubt, dark print on light background is best. Remember – some colorblind people cannot distinguish between red and green.
- Organize and align your content with columns, sections, headings, and blocks of text
- White space is important to increase visual appeal and readability (this is the “empty” space between sections, columns, headings, blocks of text, and graphics).
- Selectively incorporate charts, graphs, photographs, key quotations from primary sources, maps, and other graphics that support the theme of your poster. It is best to avoid using tables of data.
- Avoid fuzzy images; make sure all graphics are high-resolution (at least 300ppi) and easily visible

## **Adapted from NCBI**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1876493/>

Posters are a key component of communicating your science and an important element in a successful scientific career. Posters, while delivering the same high-quality science, offer a different medium from either oral presentations or published papers, and should be treated accordingly. Posters should be considered a snapshot of your work intended to invite passerbys to engage in a dialog about the work.

### **Rule 1: The Title Is Important**

The title is a good way to sell your work. The title is your equivalent of a newspaper headline—short, sharp, and compelling.

### **Rule 2: Many of the Rules for Writing a Good Paper Apply to Posters, Too**

Identify your audience and provide the appropriate scope and depth of content. Your poster needs to be a succinct summary of the motivation, hypothesis to be tested, major results, and conclusions, so does your poster.

### **Rule 3: Good Posters Have Unique Features Not Pertinent to Papers**

A poster requires you to distill the work, yet not lose the message or the logical flow. Posters need to be viewed from a distance, but can take advantage of your presence.

### **Rule 4: Layout and Format Are Critical**

Pop musician Keith Richards put the matter well: “If you are a painter, then the most important thing is the bare canvas. A good painter will never cover all the space but will always leave some blank.” Your canvas as poster presenter is also white space. Guide the passerby's eyes from one succinct frame to another in a logical fashion from beginning to end. Unlike a paper, which is linear by virtue of one page following another, the reader of a poster is free to wander over the pages as if they are tacked to the poster board in a random order. Guide the reader with arrows, numbering, or whatever else makes sense in getting them to move from one logical step to another. Try to do this guiding in an unusual and eye-catching way. Look for appropriate layouts in the posters of others and adopt some of their approaches. Finally, never use less than a size 24 point font, and make sure the main points can be read at eye level.

### **Rule 5: Content Is Important, but Keep It Concise**

Everything on the poster should help convey the message. The text must conform to the norms of sound scientific reporting: clarity, precision of expression, and economy of words. Use of first-rate pictorial material to illustrate a poster can sometimes transform what would otherwise be a bewildering mass of complex data into a coherent and convincing story. One carefully produced chart or graph often says more than hundreds of words. Use graphics (photos, tables, graphs, charts, illustrations etc.) for “clear portrayal of complexity”, not to impress viewers.

### **Rule 6: Posters Should Have Your Personality**

A poster is a different medium from a paper, which is conventionally dry and impersonal. Think of your poster as an extension of your personality. Use it to draw the passerby to take a closer look or to want to talk to you.

## **Adapted from American College of Physicians**

<https://www.acponline.org/membership/residents/competitions-awards/abstracts/preparing/poster>

### **A Few Tips on Poster Appearance:**

#### **Avoid clutter.**

Limit your poster presentation to a few main ideas. It's better to present a few of your findings well than present all of your findings poorly. Arrange your poster components to read from left to right and top to bottom. Emphasize important points on the poster with lines, frames or boxes, and arrows.

#### **Keep the lettering simple.**

Use no more than three different font sizes; the largest for the poster title, second-largest for section titles, and smallest for text. For all lettering, use both upper- and lowercase letters. Words composed of all uppercase letters are difficult to read. The smallest font should be large enough so it is easily read from a distance of 5 feet or more (usually, 24-point font).

#### **Keep the colors simple.**

Too much color can be distracting, while too little color can be boring and lifeless. Use color mainly to highlight important elements.

You will need to decide how your poster will be constructed. Your budget and available graphic art resources will most likely influence this decision. At one end of the spectrum, you can inexpensively produce a poster with a graphics software package (such as PowerPoint) and a color printer. Your output will be limited to individual components that measure 8" × 11" to 11" × 17". These components will probably need to be mounted on a stiff backing, such as poster board or foam core, to effectively display them.

At the other, more expensive end of the spectrum, you can work with the graphic arts department at your institution. They can use sophisticated software programs, such as Quark, to design and create a poster. The electronic version of the poster can be sent by e-mail to a printing or service bureau. Service bureaus produce a variety of visual products including posters, slides, signs, and limited print editions of books. They can print any size poster with all its component parts as a single unit usually within 24 to 48 hours. The cost of this service is difficult to estimate because it is dependent on a number of variables including poster size, use of color, resolution of the print (dpi, or dots per inch), whether it is laminated, or backed with foam core. A moderately priced poster may cost from \$500 to \$600. The staff in your graphic arts department can help you pick the options that are within your budget.