

SCIENCE OR ENGINEERING PRESENTATION

A science presentation focuses on making sense of the world by constructing knowledge and an engineering presentation focuses on finding suitable solutions to problems by weighing design choices.

Science Presentation

A science presentation emphasizes the core process of inquiry to describe, explain, and predict through observation, experimentation, modeling, and other scientific techniques. Science methods may rely on quantitative data (numbers), qualitative data (descriptions), or both. Science presentations do not need to be experimental.

Engineering Presentation

An engineering presentation uses the process of design to plan, build, and test a process, system, or device. Engineers must weigh design choices based on merits, constraints, and aesthetics to meet design specifications (considering both form and function) and be able to justify those choices.

Poster and Slides: A minimum of five slides or posters should be included in your presentation. A science or engineering presentation should address the following points although the order and representation of this information can vary to best reflect the topic at hand.

1. **Introduction / Title**
2. **Background:** describe connections to previous efforts; outline the purpose of your work and/or the problem statement and constraints
3. **Methods:** describes the steps you took and/or your plans to build, test, and redesign
4. **Results:** provides raw data, testing and trial data, or device
5. **Discussion:** explore the implications of your results

Visual Aids: The speaker may use posters or visual aids to enhance the presentation (not required). The work

area and table space used for the presentation should be used to the speaker's best advantage. Product labels should be limited to generic names. Elevation boards can be used by the speaker to enhance the visibility of the work area.

Length: The presentation can range in length from three minutes for an individual primary presentation to 15 minutes for a senior team presentation. The complexity of the topic and the age of participants should dictate the appropriate length. Exceeding 15 minutes in length does not result in disqualification but will be considered when evaluating the presentation.

Number of Presenters: An individual presentation is delivered by one speaker. A team presentation is delivered by up to three speakers. Team members should divide work and speaking parts equally. An uneven distribution of work or speaking parts will impact scoring of the presentation.

Questions: Anyone may ask questions. Evaluators ask questions first. Time for questions may be limited.

Note Cards: Speakers may not use notes. Posters and/or visual aids should provide any necessary prompting.

Attire: Appropriate attire for the occasion. Costumes may be used.

Other: Speakers are encouraged to relate the presentation to current 4-H activities. School assignments or science fair displays need to be related to 4-H experiences or youth sparks.





SCIENCE OR ENGINEERING PRESENTATION

Date

Location	<input type="checkbox"/> Club/Unit <input type="checkbox"/> County <input type="checkbox"/> Section/Region <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Science <input type="checkbox"/> Engineering
County	<input type="text"/>	Title
Member Name	<input type="text"/>	Age
Member Name	<input type="text"/>	Age

A. Technical Requirements: Following the 4-H Presentation Manual Guidelines Total Possible: 4

Requirement:	Not met (0 points)	Met (1 point)	Points
1. Minimum number of posters (5)?	No	Yes	
2. Length was within 3-15 minutes?	No	Yes	
3. Notes used?	Yes	No	
4. Appearance: Appropriate attire and speaker is well groomed	No	Yes	

B. Content: The purpose of the presentation and the information and ideas presented Total Possible: 8

5. Content was appropriate (suitable) for the presenter's ability	(0 pts) Too basic for ability	(0 pts) Too advanced for ability	(1 pt) Within acceptable margins for ability	
6. Speaker demonstrated knowledge of the content	(0 pts) Lack of knowledge demonstrated		(1 pt) Full knowledge of content demonstrated	
7. Speaker demonstrated skill with the equipment and materials	(0 pts) Lack of skill demonstrated		(1 pt) Full skill demonstrated	
8. Breadth and depth of evidence (references) used in the presentation	(0 pts) No references presented		(1 pt) At least one reference presented	(2 pts) Two or more references presented
9. Responses to questions	(0 pts) Speaker not able to answer questions	(1 pt) Speaker able to partially answer questions	(2 pts) Speaker able to fully answer questions	
10. Purpose of presentation accomplished effectively	(0 pts) No		(1 pt) Yes	

C. Structure: The framework that organizes the content Total Possible: 13

11. Introduction: An opening device; personal introduction; states purpose	(0 pts) No	(1 pt) Included one aspect	(2 pts) Included two aspects	(3 pts) Included all aspects	
12. Background: Outline purpose of work and/or problem statement	(0 pts) No	(1 pt) Yes			
13. Methods: Description of the steps taken and/or plans to build, test, and redesign	(0 pts) No	(1 pt) Yes			
14. Results: Provides data or device	(0 pts) No	(1 pt) Yes			
15. Discussion: Includes summary, resources, and asks for questions	(0 pts) No	(1 pt) Included one aspect	(2 pts) Included two aspects	(3 pts) Included all aspects	
16. Presentation was well-structured (organized) to help audience understand and remember ideas	(0 pts) Steps not followed in a logical order	(1 pt) Presentation structured adequately	(2 pts) Speech was highly structured and planned		
17. Presentation gained and held audience interest	(0 pts) Audience interest was not maintained	(1 pt) Interest was held for majority of speech	(2 pts) Interest was held for entire speech		

D. Mechanics of Presenting: How the speaker uses voice and body to present content Total Possible: 12

18. Verbal: Projection; tone; speech rate; vocal variety	(0 pts) Was not effective to convey content	(1 pt) Sufficient to convey content	(2 pts) Effectively used to convey content	(3 pts) Intentional and dynamic use of verbal devices to convey content	
19. Non-verbal: Facial expressions; gestures to reinforce important points	(0 pts) Was not effective to convey content	(1 pt) Sufficient to convey content	(2 pts) Effectively used to convey content	(3 pts) Intentional and dynamic use of non-verbal devices to convey content	
20. Work area and visual aids (posters/slides)	(0 pts) Distracting and disorganized	(1 pt) Helpful to convey content	(2 pts) Intentional, organized work area; clear, effective visual aids		
21. Eye contact with the audience	(0 pts) No eye contact	(1 pt) Some eye contact	(2 pts) Sufficient eye contact		
22. Poise and confidence	(0 pts) Speaker did not appear confident	(1 pt) Speaker appeared somewhat poised and confident		(2 pts) Speaker appeared poised and confident	

(Possible 37) Total Score: