2026-2027 STEAM Fairs
Experiment Project Description & Rubrics
Kindergarten – 5th Grade

Project Overview:

Scientists ask questions, make predictions, collect evidence, and use their results to learn about the world around them. For this project, design an experiment or observation study to answer a testable question. Record your research, procedures, data, and reflections in a logbook.

Project Steps:

Keep track of each step in your logbook. K-2 notebooks may include drawings, student writing, adult writing, and words dictated by the student.

1. Ask: Choose a Testable Question
Choose a question you can answer through an experiment or careful observations. Your question should have a clear purpose and, when appropriate, show a cause-and-effect relationship.

2. Research: Learn About Your Topic
Research your topic before beginning the experiment. Record important information and sources in your logbook.

3. Predict: Make a Prediction
Explain what you think will happen and why. Use what you learned from your research to support your prediction.

4. Plan: Design Your Investigation
List your materials and write clear steps so someone else could repeat your experiment or observation. Identify:

- The independent variable: what you change
- The dependent variable: what you measure or observe
- The constants: what you keep the same

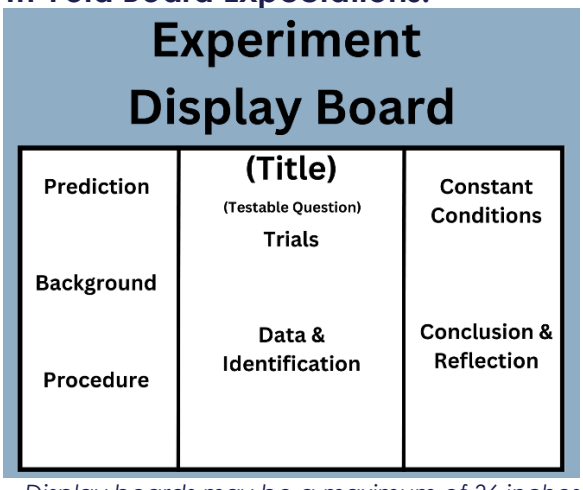
5. Test: Complete Your Trials or Observations
Follow your procedure and complete at least three trials or observations. Keep the conditions as consistent as possible.

6. Record & Organize Your Data
Record what happens during each trial or observation. Use tables, charts, graphs, drawings, photographs, labels, or other appropriate ways to clearly show your data.

7. Conclude & Reflect
Use your results to answer your original question. Explain what you learned, whether your prediction was supported, any surprises or challenges, and what you might change or investigate next.

8. Prepare & Practice Your Presentation
Organize your tri-fold board or digital presentation so others can easily understand your question, investigation, results, and conclusion. Be prepared to explain your project and answer questions about your work.

Tri-Fold Board Expectations:



Display boards may be a maximum of 36 inches high by 48 inches wide, must be a tri-fold board, and must stand on their own

Logbook Expectations:

The logbook should show the project work from beginning to end and include:

- Title and testable question
- Prediction
- Background research and sources
- Materials list and procedure
- Variables and constants
- Notes, data, charts, drawings, or photographs from each trial or observation
- Conclusion and reflections
- Bibliography

Students may create a digital presentation instead of a tri-fold board. The presentation should clearly show the same project information required on the tri-fold board, including the question, research, prediction, procedure, variables, trials or observations, data, conclusion, and bibliography, along with charts, graphs, photographs, drawings, or other visuals when appropriate to help communicate the investigation and results.

Updated August 2026

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Student Names:		Grade:		Sequence #:	
Teacher's Name		Project Title:			

Category	Exceeds Expectations	Meets Expectations	Approaching	Beginning
Title & Testable Question (5)	**5** Title creative; question is clear, specific, and shows cause & effect	**4** Title clear; question testable and specific	**2-3** Title present but not clear or not connected to experiment	**0-1** Title missing or unclear; question not testable
Prediction (5)	**5** Prediction thoughtful and explains reasoning	**4** Prediction reasonable and connected to question	**2-3** Prediction given but vague	**0-1** No prediction or unrelated
Procedure (5)	**5** Steps detailed, organized, and easy to follow	**4** Steps clear enough to repeat experiment; materials included	**2-3** Some steps listed but unclear	**0-1** Steps missing or incomplete
Background (5)	**5** Strong reason, thoughtful explanation, and good use of research	**4** Clear reasons and some research included	**2-3** Some reason given; little research	**0-1** No reason or research given
Trials/Samples (10)	**10** Three or more trials/observations completed; consistent and accurate	**8-9** At least three trials/observations with mostly consistent results	**5-7** Fewer than three trials/observations or inconsistent data	**0-4** No trials/observations completed
Constant Conditions (10)	**10** Independent, dependent, and constants identified and clearly explained	**8-9** Independent, dependent, and constants identified	**5-7** One or two variables identified	**0-4** Variables not identified
Data & Identification (10)	**10** Data is detailed, accurate, and creatively displayed; charts/graphs are clear, labeled, and visually engaging	**8-9** Data shown in charts/graphs; mostly neat and labeled	**5-7** Some data shown but unclear or incomplete	**0-4** Little or no data shown
Conclusion & Reflection (10)	**10** Deep reflection explains what was learned, surprises, challenges, and new questions	**8-9** Reflection explains what was learned and any surprises	**5-7** Basic conclusion with limited reflection	**0-4** No conclusion or reflection
Presentation (Trifold or PowerPoint) (10)	**10** Creative, polished presentation; student speaks clearly and confidently	**8-9** Neat, organized presentation with all required parts	**5-7** Some parts presented but unclear	**0-4** Presentation missing or very messy
Logbook: Data Entries (20)	**20** Logbook is complete with detailed notes, sketches, charts, and thoughtful reflections; sketches show accuracy, proportion, and detail	**15-19** Logbook includes clear notes, data, and observations	**10-14** Logbook includes some notes or data but is incomplete	**0-9** Logbook missing or mostly empty
Bibliography (10)	**10** More than 3 sources; well-organized, accurate bibliography	**8-9** At least 3 sources listed in correct format	**5-7** Fewer than 3 sources listed	**0-4** No sources listed

****Students/Teachers are to complete the top portion of this form and make sure it is attached to the STEAM Fair project for judges to reference, all scores are entered through the shared digital scoring form.****

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