



2025-2026 STEAM Fairs Experiment Project Description & Rubrics Kindergarten – 5th Grade

Project Overview:

Scientists love to make predictions, test them, and share what they learn. In this project, you will design an experiment or observation study to answer a question about the world around you.

Here is what you will do:

- Ask a testable question (cause & effect, or a clear purpose).
- Make a prediction (what you think will happen).
- Plan your procedure and describe the steps so someone else could repeat it.
- Collect data by running your experiment at least three times or making at least three observations.
- Identify your independent variable (what you change), dependent variable (what you measure), and constants (what stays the same).
- Show your data in clear ways (charts, graphs, drawings, photos, or labels).
- Write a conclusion and share what you learned, including any surprises.
- Present your project neatly on a tri-fold board or PowerPoint presentation. Be prepared to present for 3-5 minutes.
- Keep a logbook that shows your work from start to finish.

Tri-Fold Board Expectations:

Experiment Display Board		
Prediction	(Title) (Testable Question)	Constant Conditions
Background	Trials	
Procedure	Data & Identification	Conclusion & Reflection

Logbook Expectations:

- Title and testable question
- Background research and sources
- Materials list and procedures
- Notes, data, charts, or drawings from each trial
- Reflections (what worked, what you would change, new questions you have)
- Bibliography

Digital Presentation Expectations:

Students can choose to create a digital presentation in place of a tri-fold board. The presentation must include the following:

1. **Title Slide** – Include the project title, your name, and your teacher's name.
2. **Prediction** – Your reasonable prediction.
3. **Procedure** – Describe the process for your experiment.
4. **Background** – Describe why this project was selected and the research.
5. **Trials** – Describe the 3 trials and show pictures.
6. **Data** – Show the data from the 3 trials.
7. **Constant Conditions** – Identify the independent variables, dependent variables, and constant conditions.
8. **Conclusion & Reflections** – Reflect on what you learned and how you could do this experiment differently.



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Student Names:		Grade:		
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.****