2026-2027 STEAM Fairs
Maker Division - Model Project Description & Rubrics
6th Grade – 12th Grade

Project Overview:

Scientists and designers use models to explain ideas and show how something works or is organized. For this project, create a model that demonstrates what you have learned about a topic. Use research, planning, and creativity to build and explain your model, and record your work in an engineering notebook.

Project Steps:

Keep track of each step in your Engineering Notebook.

1. Choose: Identify Your Model and Its Purpose
Choose what you would like to model. Explain what your model will show, why the topic is important, and why you chose it.

2. Research: Learn About Your Topic
Research your topic before you begin building. Record accurate facts, key vocabulary, important discoveries, and sources in your engineering notebook.

3. Imagine: Brainstorm Ideas
Think of several possible ways you could create your model. Use drawings, notes, diagrams, or material ideas to show your thinking.

4. Plan: Design Your Model
Choose the idea you want to create. Make a detailed plan showing what the model should look like, the materials you will need, and the steps you will follow.

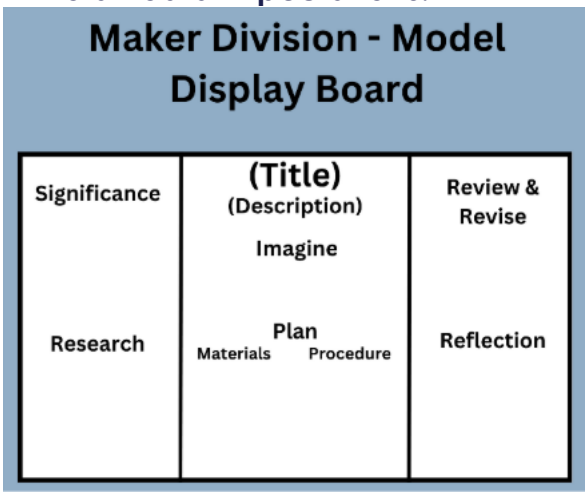
5. Create: Build Your Model
Build and label your model using your plan. Apply elements of art such as line, shape, color, texture, form, space, and value when appropriate to make your model accurate, functional, and visually engaging.

6. Review & Revise: Check Your Model
Review your model as you build to make sure the parts work together and accurately represent your topic. Compare your model to what you learned through research and make changes when needed. Record important revisions or improvements in your engineering notebook.

7. Reflect: Think About Your Learning
Explain what you learned while researching, planning, and building your model. Describe challenges you experienced, changes you made, and anything you would do differently next time.

8. Prepare & Practice Your Presentation
Organize your tri-fold board or digital presentation so others can easily understand your model, research, process, and learning. Be prepared to explain your model 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.

Engineering Notebook Expectations:

- Significance of Model
- Research notes
- Citations from research
- Sketches from planning
- Material lists
- Procedures for building
- Reflection

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 significance of the model, research, planning, model creation, revisions, and reflection.

2026-2027 STEAM Fairs
Maker Division - Model Project Description & Rubrics
6th Grade – 12th Grade

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

Category	Exceeds Expectations	Meets Expectations	Approaching	Beginning
Title & Description (5)	**5** Creative, clear title and strong description of the model's purpose	**4** Clear title and short description	**2-3** Title or description is incomplete or unclear	**0-1** No title or description
Significance of Model (5)	**5** Thorough explanation of why the model/topic is important; connects to real-world relevance	**4** Explains why the model is important	**2-3** Gives a simple or vague reason	**0-1** No explanation of importance
Research (5)	**5** Includes detailed, accurate research with multiple credible sources; explains key terms, history, and significance	**4** Includes accurate research with some key terms and details	**2-3** Includes limited or partially accurate research	**0-1** Minimal or no research
Engineering Notebook (20)	**20** Complete with detailed notes, sketches, material lists, procedures, and thoughtful reflections	**15-19** Includes most required sections; shows effort and organization	**10-14** Missing sections or limited detail	**0-9** Incomplete or missing logbook
Imagine (10)	**10** Brainstorming shows multiple creative ideas and thoughtful consideration of materials	**8-9** Shows more than one idea with some details	**5-7** Shows only one simple idea with little detail	**0-4** No brainstorming shown
Plan (10)	**10** Detailed step-by-step plan with drawings or writing; easy for others to replicate	**8-9** Clear plan but missing some details	**5-7** Plan has limited steps or detail	**0-4** Plan is missing or unclear
Create & Build (20)	**20** Model is well-built, accurate, labeled, and visually engaging; strong application of art and design elements; originality evident	**15-19** Model is complete, mostly neat, and labeled; some design or artistic elements used effectively	**10-14** Model incomplete, messy, or lacking labels; minimal artistic effort	**0-9** Model missing or poorly constructed
Review, Revise, & Reflect (10)	**10** Model is reviewed and revised as needed; strong reflection explains what worked, what did not, and surprises	**8-9** Model is reviewed and revised; reflection explains what was learned	**5-7** Model is reviewed or revised but reflection is unclear or missing details	**0-4** No review or revisions evident and/or reflection shown
Presentation (Trifold or PowerPoint) (10)	**10** Presentation is polished, organized, and engaging; student demonstrates deep knowledge and confidence	**8-9** Presentation is complete and clear	**5-7** Presentation is missing parts or difficult to follow	**0-4** Presentation incomplete or unclear
Artistic Expression (5)	**5** Student skillfully integrates multiple elements of art; originality and creativity make the work both functional and visually engaging	**4** Student includes some elements of art with clear effort toward visual appeal	**2-3** Minimal effort toward artistic quality; little evidence of elements of art	**0-1** No attempt to use artistic elements

****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.****