WESTERN NEW YORK the Henry Ford iNVENTIoN CoNVENTIoN

2023 Rubric

Category	Dimension	Description	Points
Invention Process (40)	Identifying & Understanding	The Identifying stage occurs when inventors seek problems they want to solve. This stage involves how inventors uncover problems and discover who else might experience the same problem. Understanding a problem requires research to identify existing solutions that solve the identified problem and the shortcomings of those solutions. Understanding also includes researching the impact the problem may have on others.	10
	Ideating	Ideating refers to the brainstorming or imagination stage inventors go through to generate a variety of original ideas. Ideation includes developing specific criteria for a successful solution. *Note: An inventor's idea/s may be updated at any time throughout the invention process.*	10
	Designing & Building	Designing an invention or a prototype requires critical-thinking skills; inventors are expected to articulate how they intend the invention to work and why they chose the materials they did for executing their invention.	10
	Testing & Refining	The keys to this step are iterations, improvements and perseverance. The best inventors know the first build is often not the best and seek feedback through testing and refining their design accordingly.	10
Invention Impact (25)	Market Research *Note: Judges look for research quality, not market size.*	Market Research assesses the likelihood of an invention gaining users. 1. How would you characterize the potential market? Who are the potential users? 2. How likely is the identified market to adopt the solution? 3. To what extent was the market appropriately researched? Inventors are encouraged to use both quantitative research (e.g., statistics) and qualitative research (e.g., interviewing experts or potential users).	5
	Environmental & Societal Impact	Inventors are asked to consider and communicate the potential environmental and/or societal impacts of their invention, both positive and negative (pros and cons). To what extent does the invention improve environmental/societal conditions or have a minimal adverse impact?	5

WESTERN NEW YORK INVENTION CONVENTION

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Display Board Criteria

Judging is based on the thoroughness and creativity of the display board. Judges should evaluate each board using the topics on this rubric and the depth of explanation provided by the inventor.

Criteria	Description	Points Possible
Content	**Minimal to Average:** Includes name of invention, inventor's name and grade, plus patent status and school/state. Essential design process content (in paragraphs or bullet points): problem statement, brainstorming ideas, test and revise/various iterations and improvements. **Above Average to Excellent:** Quality of required essential criteria (explained above) is a deciding factor. Contains all essential content but also includes in-depth, thorough descriptions and details (age appropriate). Options for going above and beyond include but are not limited to: pictures, statistics, market potential, depth of the problem, age-appropriate research citations (beyond Google), interviews, analysis.	0-3
Visual Appeal	**Minimal to average:** Instantly grabs viewer's attention. All items are spelled correctly, mounted and cut neatly (age appropriate). Uses color scheme. Adds visual appeal. Clean, neat, colorful, eye-catching display. **Above Average to Excellent:** Unique aspects, original factors making display pop, full of essential content but well-organized and not crowded.	0-2

WESTERN NEW YORK INVENTION CONVENTION

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Invention Logbook Criteria

Judging is based on the thoroughness of the logbook. Judges should evaluate each logbook using the topics on this rubric and the depth of explanation provided by the inventor. Descriptions in bold are the most important topics in that criterion.

Criteria	Description	Points Possible
Inventing Process	**Logbook must document student initiative and the inventing process. Information should begin with brainstorming and continue through to completion of the invention (include modifications/improvements/all changes from beginning to end).** Logbook documents how idea originated; evidence of student being the main contributor to the project (students should do all work appropriate for their grade level; adult help is encouraged regarding any safety issues, such as using power tools).	0-4
Research & Documentation	**Document research related to the general topic as well as the existence of similar inventions (supports originality).** Lists all items used, including borrowed and repurposed. Documents expenses for purchased materials. Documents help from adults.	0-4
Analysis	**Provides analysis of the invention benefits/consequences: environmental, societal, market potential.** **Gives pros/cons of design process.**	0-2