Class:

Sunglasses Design Grading Rubric

Use this rubric to assess students' abilities to implement design practices in an informed way. Examine the variations between the descriptions of novice, intermediate low, intermediate high, and advanced levels of designers. As you assess student work, rate the teams in each category. **Total max points = 24**

Overall score 0-6 = novice; 7-12 = intermediate low; 13-18 = intermediate high; 19-24 = advanced

6 categories ♥	Novice	Intermediate Low	Intermediate High	Advanced
	= 1 pt	= 2 pts	= 3 pts	= 4 pts
Technique and Concepts	Work lacks understanding of concepts, materials, and skills.	Work shows some understanding of concepts, materials, and skills.	Work reflects understanding of concepts and materials as well as use of skills discussed in class.	Work shows a mastery of skills and reflects a deep understanding of concepts and materials.
Habits of Mind and Effort	Work indicates a passive attempt to fulfill assignment with little thought or exploration of possibilities. Only explored one idea. Work is not completed in a satisfactory manner. Results indicate minimal effort put forth. Observations indicate poor use of class time.	Developed a few possible solutions and showed innovative thinking. Did not explore more than one idea. Work is complete but lacks finishing touches or could be improved with a little more effort. Accomplished just enough to meet requirements.	Developed and explored multiple solutions and showed innovative thinking that evolved during the project. Completed work, yet more could have been done. Needed to do more to go one step further to achieve excellence.	Consistently showed a willingness to try multiple solutions and asked thought- provoking questions, leading to deeper, more distinctive results. Fully explored many ideas and iterations, resulting in excellent and exemplary work that exceeded expectations.
Reflection and Understanding	Shows little awareness of the objectives and process. The work does not demonstrate an understanding of the project content.	Demonstrates some self-awareness. Work shows some understanding of content, but did not justify all decisions.	Shows self-awareness. Work demonstrates an understanding of project content and most decision are logical and justified.	Shows thoughtful self- awareness. Work indicates a deep understanding of the complexities of the content. Decisions are solidly justified.
Meeting Design Constraints	Meets one of the project requirements and constraints.	Meets two of the project requirements and constraints.	Meets three or four project requirements and constraints.	Meets or exceeds all project requirements and constraints.
Craftsmanship	Work is messy and craftsmanship detracts from overall presentation.	Somewhat messy and craftsmanship detracts somewhat from overall presentation.	Work is neat and craftsmanship is solid.	Work is impeccable and shows care and thoughtfulness in its craftsmanship.
Communication of Design	Advertisement is messy, not clear, and does not include collected data.	Somewhat messy and not very clear. Data is included, but does not help to sell the product.	Work is neat. The advertisement is complete with data to support the claims.	Work is impeccable and shows a clear and concise ad. A convincing ad includes data to support all claims.
TOTAL =				

TeachEngineering.org



Exploiting Polarization: Designing More Effective Sunglasses Activity—Sunglasses Design Grading Rubric