Heating Project Rubric

Name

Team

Comments:

Evaluation: Included; Below, Meets, Exceeds/Best Practices)

Introduction 10 Problem Statement Concept Map (technical/project) Summary of significant design elements design Results Complete and Concise		
Scientific and Engineering Background (20) 5 Chemical Principles--Molecular Level/dissolution conductors/insulators 15 Heat Transfer principles Calorimetry Design Considerations Individual Research presented		
Design (25) Heat Transfer Calculations Complete, accurate, units, Summarized in Table Salt Selection Complete Data, Criteria Comparison Table Complete Narrative describing data and reasons for decisions Size, Material of Construction, Safety		
Equipment (10) Accurate Drawing, all dimensions used in calculations Photograph Procedure Narrative of analysis of equipment and compromises		
Testing/Analysis 25 Trial 1: Results of test in tables, graphs, charts, as appropriate Analysis of preliminary results Include heat transfer expected vs actual Full description and rationale for modifications Final Test Results in tables, graphs, charts Quantitative Comparison of Results from 2 tests (graphs, tables) Comparison of Heat transfer for 2 tests Final Results compared to prediction Narrative includes all experimental observations, analysis, conclusions		
Resources and Report Quality 10 Research Materials (articles, references) Specific Contributions of Others Spell check errors Easy to follow what was done Logically presented/well organized Discussion specific, complete and focused Calculations shown clearly with reasonable sig figures Consistent Units		
Self Evaluation 5 Your opinion of the work/results Details of reasons project succeeded/failed Recommendations for future improvements Changes required to improve group dynamics		

(Weightings are approximate)