Energy & Me Grading Rubric

Name: Grade:

Grading Criterion #1. Format.
• The energy flow diagram is composed to fill one side of a single sheet of 11x17” white paper that was provided for this assignment? If not, the overall grade is 0 and all other grading criteria are ignored.

Grading Criterion #2 (25%). Overall Impression of the Energy Flow Diagram.
• The diagram begins minutes after the Big Bang and ends in the center of the turkey (5%).
• All relevant energy transformations are correctly identified (5%).
• The types of energy involved in each transformation are correctly identified (5%).
• The diagram displays high information density through effective use of graphics, labels, and text boxes (10%).

Grading Criterion #3 (40%). Microscopic Perspective.
• An atomic/molecular perspective is developed both in the diagram and in the text for the relative roles of conduction, convection, and radiation...
  ○ within the oven (10%)
  ○ within the roasting pan (10%), and
  ○ within the turkey (10%).
• Heat exchange is effectively illustrated at the microscopic level with the “exploding box” format (10%).

Grading Criterion #4 (10%). Laws of Thermodynamics.
• There is a clear and concise indication of at least one instance where the First Law of Thermodynamics applies to the energy flow diagram (5%).
• There is a clear and concise indication of at least one instance where the Second Law of Thermodynamics applies to the energy flow diagram (5%).

Grading Criterion #5 (10%). “Doneness.”
• There is a clear and concise thermodynamic explanation of what it means to say that the turkey is “done.”

Grading Criterion #6 (15%). Pride of Authorship.
• Overall impression of scholarship and professionalism (includes factors such as neatness, spelling, grammar, etc.) (15%)
• Exemplary, exceeds college-level expectations for scholarship and professionalism (up to 10% extra credit).
• Beneath college-level expectations for scholarship and professionalism. If so, the overall grade is 0 and all other grading criteria are ignored.