

## Appendix B: Sample Evaluation Sheets

These evaluation sheets were used in previous years. Some details may change from year to year, but these will give you an idea of how your lab reports will be graded.

### Evaluation Sheet For Osmosis Lab Exercise

This lab report was graded out of a total of 40 points, distributed as follows.

- I. Portfolio and Organization (3 points)
  - portfolio labeled inside and out, tabbed labeled dividers, no extra material, hole punch used
  - appropriate title for report
  - double spaced, one side, 12 point fontYour Points:
- II. Introduction Section (4 points)
  - background information clearly described
    - osmosis description
    - gradient
    - relationship of gradient and rate of osmosis
  - your question or hypothesis clearly stated
  - experimental design and rationale well explained
  - proper grammar, good writing style
  - no “throwaway comments”Your Points:
- III. Methods Section (5 points)
  - brief but complete
    - explains experiment
    - explains data analysis
    - does not state results
    - fixed, dependent, independent variables identified
  - use past tense, passive voice
  - proper grammar, good writing style
  - method linked to hypothesisYour Points:
- IV. Results Section (10 points)
  - data collected and analyzed correctly
  - data presented in properly constructed tables and graphs
    - appropriate labels, units
    - avoid “bad graphs” errors
    - trendlines shown
    - graph type, aspect and scale appropriate
    - tables properly constructed
    - slopes reported
  - results described in text
  - tables and graphs cited in text
  - proper grammar, good writing styleYour Points:
- V. Discussion Section (5 points)
  - analysis of hypothesis in light of your results
  - how successfully were fixed variables controlled
  - any significant flaws in the experiment are well explained
  - further experiments proposed
  - proper grammar, good writing styleYour Points:
- VI. Unknown (10 points)
  - within 1% (5 points)
  - within 2% (2 points)
  - way off (zero points)Your Points:
- VII. Other Material (3 points)
  - Temperature experiment
  - Dialysis demonstration
  - Questions 1-4Your points:

**Your Total Points (40 possible):**

## Evaluation Sheet For Enzyme Lab Exercise

This lab report was graded out of a total of fifty points, distributed as follows:

I. Portfolio and Organization (15 points)

- portfolio labeled inside and out, tabbed labeled dividers, no extra material, hole punch used
- appropriate title for report
- double spaced, one side, 12 point font
- osmosis lab with error analysis present
- errors from osmosis lab are not repeated
- attended conference
- preliminary results section

Your Points:

II. Introduction Section (10 points)

- background information clearly described
  - enzymes in general
  - catecholase rxn
- your question or hypothesis clearly stated
- experimental design, rationale, expected results well explained
- proper grammar, good writing style

Your Points:

III. Methods Section (15 points)

- brief but complete
  - explains blank and exptl. tubes
  - explains spec. measurement
  - indep., dep, fixed variables identified
- proper grammar, good writing style, use past tense, passive voice
- method linked to hypothesis

Your Points:

IV. Results Section (20 points)

- data collected correctly
- data presented in properly constructed tables, including units
- results described in text, std dev used to interpret the mean
- tables and graphs cited in text
- graph titles and axis labels appropriate
  - absorbance units
  - avoid "bad graphs" errors
- graph type, aspect and scale appropriate
- proper grammar, good writing style
- data reflects effort appropriate for two lab periods

Your Points:

V. Discussion Section (20 points)

- analysis of hypothesis in light of your results
- relevant experiments from others cited and discussed
- how successfully were fixed variables controlled
- any significant flaws in the experiment are well explained
- preliminary results analyzed, explains repeated/extended experiments in relation to preliminary data
- further experiments proposed
- proper grammar, good writing style

Your Points:

**Your Total Points (80 possible):**

## Evaluation Sheet For Bacterial Transformation Lab Exercise

This lab report was graded out of a total of twenty points, distributed as follows:

- I. Portfolio and Organization (12 points)
- portfolio labeled inside and out, tabbed labeled dividers, no extra material, hole punch used
  - appropriate title for report
  - double spaced, one side, 12 point font
  - osmosis lab with error analysis present
  - errors from osmosis and enzyme lab reports are not repeated

Your Points:

- II. Introduction Section (12 points)
- background information clearly described
    - ampicillin gene on plasmid --> amp R protein
    - describe transformation / selection
  - your question or hypothesis clearly stated
  - experimental design and rationale well explained
  - proper grammar, good writing style

Your Points:

- III. Methods Section (12 points)
- brief but complete
    - explains dilutions
    - explains plating / colonies = cells
  - use past tense, passive voice
  - proper grammar, good writing style
  - method linked to hypothesis

Your Points:

- IV. Results Section (12 points)
- data collected and analyzed correctly
  - data presented in properly constructed tables, including units
  - results described in text - your question answered and compared to class mean
  - tables cited in text
  - any significant flaws in the experiment are well explained
  - proper grammar, good writing style

Your Points:

- V. Unknown (12 points)

Cells per ml, Transformants per ml, and efficiency all:

Within 50%	Within 90%	Way off
8 points	4 points	0 points

Your Points:

**Your Total Points (60 possible):**