

ASSESSMENT GOAL #2
Laboratory Report Cover Sheet

Student: _____

Course: _____

Semester/Year: _____

Skill Level Indicators

N Novice: requires explicit guidance of instructor

I Intermediate: performs with minimal guidance

A Advanced: exhibits independence; may modify protocols to new conditions, instruct others

ne No Expectation in this area

number in parentheses indicates maximum deduction if in error.

Performance of experiment N I A

____ Follow experimental protocols (N needs list of steps to follow; I plans steps from a general description; A uses the literature to develop procedure)

Laboratory Notebooks N I A ____ / 5

____ Record data accurately (I numbers recorded; A additional observations)

____ Record procedures followed (N none; I minimal; A work could be reproduced from notes)

Laboratory Report N I A ____ / 10

____ Spelling/grammar (some -1, many -2, unreadable -3); vocabulary (-1/2); tense consistency (-1/2); voice passive (-1/2)

____ Organize material into standard sections (minor problems -1/2, major problems -1)

____ Abstract: system studied; method used; important results (-1 if absent, no other deductions)

____ Introduction: what experiment will tell us (-1); balanced equations for chemical reactions (-1)

____ Experimental: reagents (-1/2); equipment specifications/name (-1/2); procedures followed (only refers to text -2, N)

____ Results: data is complete; displayed as table or graph when appropriate (up to -1)

____ Discussion: significance of experiment (-1); comparison to literature; answers to text questions (-1); discussion of error sources (-1/2)

____ Equations: complete description including definition of variables (some missing -1/2, many missing -1, most -1.5)

____ References: complete; correct format

Data Analysis and Interpretation N I A ____ / 6

____ Performs algebraic calculations: includes equations; units (-1/2); sample calculations (-1); accuracy (up to -4)

____ Graphs data (N simple graph, I regression/curve fitting) (up to -2 if missing)

____ Uses computer simulations/molecular modeling

Assess reliability of results N I A ____ / 4

____ Estimates error in measurements (N gives sources of error (-2), I propagates errors-- includes equations, sample calculations (-2))

____ Significant digits (-1/2)

Literature Search N I A ____ / 2

____ Finds appropriate references (provide abstract) (-1)

____ Compares literature results with own (-1)