**Senior Chemistry** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
**Lab Report Rubric** Assessed by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 Block:\_\_\_\_\_
Lab Title:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- | --- | --- |
|  | **Beginning** | **Developing** | **Accomplished** | **Exemplary** |
| **Overall** | *Lab report does not reveal objectives, results, and/or has made no attempt at analysis.* | *Lab report reveals basic objectives and results. Analysis attempted, but does not reveal relevance.* | *Organized lab report with definite objectives, results, and relevance.* | *Organized and professional lab report with clear communication of creative, original thinking that demonstrates science as a process.* |
| **Presentation/Format** | * Written in pencil or coloured pens
* Liquid paper is used
* Frequent, obvious grammatical and spelling errors that confuse the reader
* Headings are missing
* Sections are missing
 | * Written in messy blue/black pen
* No liquid paper used, but mistakes are scribbled out
* Some distracting grammar and spelling errors which do not create confusion
* Title/headings are not underlined
* All sections are included, but out of order
 | * Written in blue/black pen
* No liquid paper used, mistakes striked with one pen line
* Minimal Grammar and spelling errors
* Title/headings are not underlined
* Standard lab report format is followed
 | * Neatly written in blue/black pen or word processed
* No liquid paper used, mistakes striked with one pen line using ruler
* Grammar and spelling correct throughout
* Title/headings are neatly underlined with ruler
* Crisp, neat, organized and professional lab report format that pleases the eye
 |
| **Pre-Lab** | **Subject, Unit, Date, Name, Partner’s Name** | * Missing Name and/or Partner’s Name
* Date does not coincide with date in the lab
 | * Name, Partner’s Name, and Proper Data included, but missing Subject, Unit, or Block
 | * Subject, Unit, Name, Partner’s Name, proper Date, and Block all included but out of order
 | * Subject and Unit at top left header
* Name, Partner’s Name, proper Date, and Block at top right header
 |
| **Title** | * There is no title
 | * The word “pre-lab” is in title
 | * Title does not reveal purpose of lab
 | * Title reveals purpose of lab
 |
| **Purpose** | * Point form
* Some objectives are missing
 | * Poor sentence structure(fragments)
* Not all objectives are clear to the reader
 | * Full sentences
* All objectives clear, but no predictions
 | * Clear communication through structured sentences that connect one idea to the next
* Clearly identifies objectives and hypotheses/predictions
 |
| **Materials** | * Material list missing or incomplete
 | * All materials are referenced back to the lab sheet/instructions, but hazardous chemicals are not highlighted
 | * All materials are referenced
* All hazardous chemicals are highlighted
 | * All materials are referenced
* All hazardous chemicals are described in detail with safety precautions
 |
| **Procedure – Flow Chart** | * No diagrams
* Procedure is mostly copied/not in own words
* Many steps are missing or unclear
 | * Unorganized
* Diagrams are unclear
* Words commands are unclear
* Some minor steps are missing or unclear
 | * Organized
* Diagrams clear
* Clear word commands, but not concise
* All steps included
 | * Excellent organization, easy to follow.
* Diagrams clear and catch the eye
* Clear, concise word commands
* All steps included
 |
| **Results** | **Prep** | * Tables are missing headings/units
* No ruler used for tables
 | * Tables not organized/neat
* All table headings include units
* No title
 | * All tables are neatly prepared
* All table headings include proper units
* All tables are titled
 | * All tables are neatly prepared with ruler
* All table headings include proper units
* All tables are titled and labeled by number
 |
| **During Lab** | **Data** | * Improper sigfigs
* Data recorded in pencil
* Data is not recorded in a table
* Uncertainty missing
 | * Some errors in sigfigs
* Data recorded messily with pen
* some errors with uncertainty or missing
 | * Proper sigfigs and uncertainty with minimal errors
* Data recorded with a pen
 | * Proper sigfigs and uncertainty with no errors
* Data neatly recorded with a pen
 |
| **Observations** | * No or limited qualitative description
* Personal opinions given ex) “I think it smells yucky”
 | * Some qualitative description
 | * Qualitative description given for most of the chemicals (reactants and products)
* Important events are noted
 | * Detailed qualitative description given for all chemicals (reactants and products)
* Detailed log of experiment progress
 |
| **Post Lab** | **Analysis** | **Calculations** | * Major calculation work is missing
* Improper sigfigs/units
* Difficult to follow/work not shown
 | * Some minor calculations missing
* Some minor errors in sigfigs/units
 | * Calculations complete with proper sigfigs and units
 | * Ordered and easy to follow calculations, complete with proper sigfigs and units
 |
|  | **Graphs** | * No ruler used for axis/line
* No axis labels
* Scale increments intervals unequal /incorrect
* Many data plots missing/incorrect
* No line or curve
* No title
 | * Improper placement of independent (X) and dependent (Y) variables
* Axis not drawn with ruler, labeled with measurement and units, missing uncertainty
* A few errors in uniformity of scale increments
* A few data plots are unclear/ incorrect
* Line/curve not best fit
* Title does not follow “Y vs X”
 | * Axis drawn with ruler and labeled with measurement and units, but missing uncertainty
* Uniform scale that does includes origin but does not use space effectively
* Data correctly plotted with dot, but no circle
* Ruler Line/curve of best fit extends past plots
* Title follows “Y vs X”, includes measurements but no units
 | * Proper placement of independent (X) and dependent (Y) variables
* Axis drawn with ruler and labeled with measurement, uncertainty, and units
* Uniform scale that includes origin and uses space effectively
* Data correctly plotted with dot and circle, legend if appropriate
* Line/curve of best fit represent data plots
* Title follows “Y vs X”, includes measurements and units
 |
| **Discussion** | * Point form
* Answers are incorrect or incomplete
 | * Poor sentence structure(fragments)
* Most/all answers demonstrate a minimal understanding of concepts
 | * Full sentences
* The majority of answers demonstrate an understanding of concepts with minimal errors
 | * Clear communication through structured sentences that connect one idea to the next
* All answers demonstrate a thorough, in depth understanding of concepts
 |
| **Conclusion** | * Point form
* Purpose and/or results not referred to

* No sources of error
* Personal opinions are included such as “I like this lab,” “This lab was FUN!”
 | * Poor sentence structure (fragments)
* Refers to purpose, summarizes results without insight

* Sources of error not relevant
* Does not discuss relevance
 | * Full sentences
* Answers purpose by summarizing results
* States 1-2 relevant sources of error
* Reveals relevance of results
 | * Clear communication through structured sentences that connect one idea to the next
* Answers purpose by comparing key results to predictions/hypothesis (supported/not supported/rejected)
* States 2 or more insightful sources of error and suggests improvement to this lab
* Connects to big picture (relevance)
* Asks new questions and suggests new experiments for the future
 |