WRITING UP OUTCOME1’s

O1s are just as important as UNIT ASSESSMENTS and your final exam. 100% on your final written paper is not enough to pass without these.

You will have been issued with a FRONT COVER which gives information about what to cover.

All items from each section should be covered

Let’s work down the sheet

A teacher must tick to confirm that you participated in the experiment. If you were absent in this instance it is not good enough just to copy up. Now you don’t have to do ALL the experiment so tidying away apparatus might just be enough.

It is also an EXAM PIECE so joint working and copying tables and graphs is NOT acceptable, although you might well have the same results. Save these in your hand in folder in the members part of the Nat 5 Physics and not in groupwork

They look like this:

**National 4/5 Biology/Chemistry/Physics Outcome 1 – Assessment Checklist**

**Pupil Name - Subject - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Title of Experiment -**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment Standard** | **Evidence required** | **Evidence produced** | | |
| **1** | **2** | **3** |
| * 1. Planning an experiment/   practical investigation  Permission to start expt  Date:  Initials: | Aim of experiment |  |  |  |
| Hypothesis |  |  |  |
| Dependent/independent  variable |  |  |  |
| Variables to be kept constant |  |  |  |
| Measurements/observations  to be made |  |  |  |
| Resources /Equipment |  |  |  |
| Method including safety |  |  |  |
| 1.2 Following procedures safely | Procedures have been  followed safely and correctly |  |  |  |
| * 1. Making and recording   observations/ measurements correctly | Observations/measurements  taken are correct |  |  |  |
| * 1. Presenting results in an   appropriate format | Results have been presented  in an appropriate format |  |  |  |
| 1.5 Drawing valid conclusions | What the experiment shows,  with reference to the aim |  |  |  |
| * 1. Evaluating experimental   procedures | The suggestion given will  improve the experiment |  |  |  |
| Resubmit | Date: |  |  |  |
| Resubmit | Date: |  |  |  |
| Resubmit | Date: |  |  |  |
| Resubmit | Date: |  |  |  |

Teacher \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Verifier \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

TITLE: *Make it brief and to the point eg OHMS LAW. Sometimes it can be a repeat of the AIM*

AIM: *What are you trying to find out? For example “Finding the half life of …….” “Finding the value for latent heat of …..”. “Finding the Relationship between X & Y” “Confirming a resistor or light bulb obeys ohms law*

METHOD: *Clearly state each step of the experiment. This usually works best when you do a bullet list and it is also easier to read and change. Few people pass in one go so be prepared to re-draft. Include WHAT you MEASURED, HOW YOU MEASURED and HOW YOU CHANGED THE VARIABLE, even if this is obvious. Remember Mr Bowles is a verifier so write it as if he has never done the experiment!*

RESULTS: *Must be in a table, must be repeated, must have headers and units. Do NOT put units with the numbers add the units in the headers. Make it neat and don’t go to too many sig fig.*

*Graphs, add gridlines, don’t force through the origin, careful with trendlines (can be hand drawn) Axes labelled and with units.*

CONCLUSION: *This must relate to the AIM so “The half life of ….. is …… This compares with the quoted value of …..” this doesn’t have to be long.*

EVALUATION: *Here is your chance to shine and this is an important practice run for Science further up the school. You are basically saying how you made it fair and if it wasn’t fair (sometimes a lot easier to discuss) what should/ could you have done differently*

*• effectiveness of procedures- compare it to the real value, was it close (accuracy v precision (AH!))*

*• control of variables- how did you keep everything constant*

*• limitations of equipment- don’t just say old equipment maybe things like not enough scale divisions, wires wiggled and changed the value, maters fluctuating, variance on the balance etc.*

*• possible improvements – what would have given you a better result?*

*• possible sources of error.- where were the big things that altered your value (splashes, condensation!)*