**Skills Portfolio Name: …………………………….**

**Chemistry Practical 7: Esters and identification of carbonyls**

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| Performing a microscale experiment Level of confidence (circle) 1 (low) 2 3 4 5 (high) | |
| *Insert photographs here to show the test tubes in which you prepared your esters.* | ***What was difficult about the tech-nique? What advice would you give another student to carry it out correctly?*** |

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| Structures of esters Level of confidence (circle) 1 (low) 2 3 4 5 (high) |
| ***Draw displayed formulae to show the structures of two of the esters you prepared. Name the esters, and name the alcohol and carboxylic acids they were made from.***  *(you can draw them on paper and photograph them if preferred)* |

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| Silver Mirror test Level of confidence (circle) 1 (low) 2 3 4 5 (high) | | |
| *Insert photographs here.* | ***What was difficult about the tech-nique? What advice would you give another student to carry it out correctly?*** | |
| Fehling’s test Level of confidence (circle) 1 (low) 2 3 4 5 (high) | |
| *Insert photographs here.* | ***What was difficult about the tech-nique? What advice would you give another student to carry it out correctly?*** |

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| Redox reactions during Tollens’ & Fehling’s tests Level of confidence 1 (low) 2 3 4 5 |
| ***Write an equation to illustrate the chemical reaction occurring when an aldehyde undergoes a positive test with either Tollens’ or Fehling’s reagent. You only need to include the organic reactant and product – represent the oxidising agent as [O].***  ***When a metal or metal ion undergoes a reduction or oxidation reaction, the process can be illustrated with a half-equation e.g. the reduction of iron (III) to iron (II):***  **Fe3+(aq) + e- 🡪 Fe2+(aq)**  ***Write half-equations to illustrate what happens to Ag+ and Cu2+ during Tollens’ and Fehling’s tests respectively. Try to get the state symbols correct (hint – remember what you observed during the tests).*** |