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

**Chemistry Practical 9: Transition metal complexes**

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| Writing observations Level of confidence (circle) 1 (low) 2 3 4 5 (high) |
| ***Write up your observations regarding what happened in the demonstration of the [CoCl4]2- / [Co(H2O)6]2+ equilibrium. You are not expected to write a full method, but you should describe the different steps of the demonstration as if you were writing them in a method.*** |

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| Explaining observations (analysis) Level of confidence (circle) 1 (low) 2 3 4 5 (high) |
| ***Write explanations for the observations you recorded in terms of equilibria. You can use Le Chatelier’s principle to explain these phenomena.*** |

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| Photographs |
| ***Include the photographs you took in steps 4, 5 and 6 for the practical.***  *Insert photographs here* |

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| Calculating % Yield Level of confidence (circle) 1 (low) 2 3 4 5 (high) |
| ***Calculate the % yield of the complex you made (revision of important skill).***  ***Comment on your % yield value and explain any loss/gain in mass compared with the theoretical yield.*** |

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| Your reaction product |
| ***Draw the structures of the product complexes i) in solution and ii) in the solid form. Note that the complex formed in solution is slightly different from that formed in the solid state. You can find out about this by doing some searching online.*** |