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| Competency | Practical mastery |
| In order to be awarded a Pass a student must, by the end of the practical science assessment, consistently and routinely meet the criteria in respect of each competency listed below. A student may demonstrate the competencies in any practical activity undertaken as part of that assessment throughout the course of study.Student may undertake practical activities in groups. However, the evidence generated by each student must demonstrate that he or she independently meets the criteria outlined below in respect of each competency. Such evidence:a. will comprise both the student’s performance during each practical activity and his or her contemporaneous record of the work that he or she has undertaken during that activity, andb. must include evidence of independent application of investigative approaches and methods to practical work. |
| 1. Follows written procedures | a. Correctly follows written instructions to carry out experimental techniques or procedures. |
| 2. Applies investigative approaches and methods when using instruments and equipment | a. Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. b. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. c. Identifies and controls significant quantitative variables where applicable, and plans approaches to take account of variables that cannot readily be controlled. d. Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results.  |
| 3. Safely uses a range of practical equipment and materials | a. Identifies hazards and assesses risks associated with these hazards, making safety adjustments as necessary, when carrying out experimental techniques and procedures in the lab or field. b. Uses appropriate safety equipment and approaches to minimise risks with minimal prompting.  |
| 4. Makes and records observations | a. Makes accurate observations relevant to the experimental or investigative procedure. b. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions.  |
| 5. Researches, references and reports | a. Uses appropriate software and/or tools to process data, carry out research and report findings. b. Cites sources of information demonstrating that research has taken place, supporting planning and conclusions. |