# Identifying the CPAC from the Practical Skills Statements

In order to be awarded a Pass a student must, by the end of the practical science assessment, consistently and routinely meet the Common Practical Assessment Criteria (CPAC) 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.

Students 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 –

1. 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, and
2. must include evidence of independent application of investigative approaches and methods to practical work.

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| **OCR**  **1.2.1** | **DfE practical skill statement exemplified in OCR 1.2.1** | **CPAC competency** | **Descriptor of “mastery”** |
| **a** | apply investigative approaches and methods to practical work | **CPAC 2** Applies investigative approaches and methods when using instruments and equipment | 1. Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to ***carry out investigative activities***, experimental techniques and procedures with minimal assistance or prompting. 2. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. 3. Identifies and controls significant quantitative variables where applicable, and plans approaches to take account of variables that cannot readily be controlled. 4. Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results. |

***DISCLAIMER***

This resource was designed using the most up to date information from the specification at the time it was published. Specifications are updated over time, which means there may be contradictions between the resource and the specification, therefore please use the information on the latest specification at all times.If you do notice a discrepancy please contact us on the following email address: [resources.feedback@ocr.org.uk](mailto:resources.feedback@ocr.org.uk)

| **OCR**  **1.2.1** | **DfE practical skill statement exemplified in OCR 1.2.1** | **CPAC competency** | **Descriptor of “mastery”** |
| --- | --- | --- | --- |
| **b** | safely and correctly use a range of practical equipment and materials | **CPAC 3** Safely uses a range of practical equipment and materials | 1. 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. 2. Uses appropriate safety equipment and approaches to minimise risks with minimal prompting. |
| **c** | follow written instructions | **CPAC 1** Follows written procedures | 1. Correctly follows instructions to carry out experimental techniques or procedures. |
| **d** | make and record observations/measurements | **CPAC 4** Makes and records observations | 1. Makes accurate observations relevant to the experimental or investigative procedure. 2. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions. |
| **e** | keep appropriate records of experimental activities | **CPAC 4** Makes and records observations | 1. Makes accurate observations relevant to the experimental or investigative procedure. 2. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions. |
| **f** | present information and data in a scientific way | **CPAC 4** Makes and records observations | 1. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions. |
| **g** | use appropriate *software* and *tools* to process data, carry out research and report findings | **CPAC 2** Applies investigative  approaches and methods when using  instruments and equipment | 1. Correctly uses appropriate instrumentation, apparatus and materials (***including ICT***) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. |
| **h** | use *online* and offline *research skills* including websites, textbooks and other printed scientific sources of information | **CPAC 5** Researches, references and reports | 1. Uses appropriate software and/or tools to process data, carry out research and report findings. |
| **i** | correctly cite sources of information | **CPAC 5** Researches, references and reports | 1. Cites sources of information, demonstrating that research has taken place, supporting planning and conclusions. |
| **j** | use a *[wide]* range of experimental and practical instruments, equipment and techniques appropriate to the knowledge and understanding included in the specification | **CPAC 2** Applies investigative  approaches and ***methods when using***  ***instruments and equipment*** | 1. ***Correctly uses appropriate instrumentation, apparatus and materials*** (including ICT) to carry out investigative activities, ***experimental techniques and procedures with minimal assistance or prompting***. 2. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. |
| **1.2.2** | Use of apparatus and techniques  All of the techniques listed will be assessed through a minimum of 12 practical activities. These practical activities must allow students to demonstrate *[competence in]* all of the practical skills listed above (1.2.1a to 1.2.1j). | **CPAC 2** Applies investigative approaches and methods when using ***instruments and equipment*** | 1. Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. 2. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. 3. Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results. |
| **CPAC 3** Safely uses a ***range of practical equipment and materials*** | 1. 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. 2. Uses appropriate safety equipment and approaches to minimise risks with minimal prompting. |

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