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| OCR Physics A  Module 1:  Development of practical skills in physics | Module RAG sheet |

Use this sheet to track and review your learning and revision.

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| **1.1** | **Practical skills assessed in a written examination** | RAG1 | RAG2 | RAG3 |
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| **1.1.1** | **Planning** |  |  |  |
| (a) | experimental design, including to solve problems set in a practical context  Including selection of suitable apparatus, equipment and techniques for the proposed experiment.  Learners should be able to apply scientific knowledge based on the content of the specification to the practical context. |  |  |  |
| (b) | identification of variables that must be controlled, where appropriate |  |  |  |
| (c) | evaluation that an experimental method is appropriate to meet the expected outcomes. |  |  |  |
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| **1.1.2** | **Implementing** |  |  |  |
| (a)(i) | how to use a wide range of practical apparatus and techniques correctly  As outlined in the content of the specification and the skills required for the practical endorsement. |  |  |  |
| (b) | appropriate units for measurements |  |  |  |
| (c) | presenting observations and data in an appropriate format. |  |  |  |
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| **1.1.3** | **Analysis** |  |  |  |
| (a) | processing, analysing and interpreting qualitative and quantitative experimental results Including reaching valid conclusions, where appropriate. |  |  |  |
| (b) | use of appropriate mathematical skills for analysis of quantitative data |  |  |  |
| (c) | appropriate use of significant figures |  |  |  |
| (d) | plotting and interpreting suitable graphs from experimental results, including |  |  |  |
| (d)(i) | selection and labelling of axes with appropriate scales, quantities and units |  |  |  |
| (d)(ii) | measurement of gradients and intercepts. |  |  |  |
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| **1.1.4** | **Evaluation** |  |  |  |
| (a) | how to evaluate results and draw conclusions Learners should be able to evaluate how the scientific community use results to validate new knowledge and ensure integrity |  |  |  |
| (b) | the identification of anomalies in experimental measurements |  |  |  |
| (c) | the limitations in experimental procedures |  |  |  |
| (d) | precision and accuracy of measurements and data, including margins of error, percentage errors and uncertainties in apparatus |  |  |  |
| (e) | the refining of experimental design by suggestion of improvements to the procedures and apparatus. |  |  |  |