

Educational value of practical work

The reintroduction of Practical Assignments as an assessment component for N5 and Higher Sciences and Projects for Advanced Higher Sciences has some positive benefits – particularly in highlighting the critical role of practical work in introducing learners to scientific ideas and theories.

SSERC recognises the educational value of practical work and believes it should constitute a significant proportion of a learner's time when undertaking a STEM-based curriculum.

We believe that practical work serves the following purposes:

- to motivate and engage learners
- to teach the principles of STEM inquiry
- to develop specialist skills, e.g. measurement, observation
- to underpin the theory through practical skills
- to further develop critical skills and attributes such as communication, teamwork, and creative thinking
- to engage learners to continue the study of science (and STEM).

Teachers and technicians are the cornerstones of good quality practical activity in STEM subjects that take place in schools.



Technicians, in particular, provide a potential untapped pool of knowledge and skills that can and should be further utilised and developed to support practical work to benefit teachers and learners linked to the practical assignment assessment component.

We are aware that this reintroduction has caused some anxiety at a time when some teachers who are new to the profession may not have had much experience in teaching practical skills. More experienced teachers will not have delivered the practical assignment component for some time, and despite reassurances that the assessment specification has not changed, may still be anxious. So, how can we help?

SSERC is a proactive organisation; however, our professional learning calendar is planned approximately a year in advance, so the (late) announcement of the reintroduction of this assessment component and the general anxiety expressed by the profession meant that we had to react to the situation. Across the sciences, we have scheduled various professional learning opportunities to provide support relating to suitable practical assignment contexts. These opportunities will be delivered in a variety of ways:

- Online live webinars
- Self-study courses
- Face-to-face professional learning opportunities at SSERC HQ or other appropriate locations.



For more information, visit our professional learning pages at [Secondary PL - SSERC](#).

It is important to remember that SSERC is not responsible for setting the practical assignment specifications, developing (or interpreting) the marking instructions or responding to any questions linked to these areas. SQA will deal with these aspects at their Understanding Standards events planned for November/December 2023.

We hope that the support from SSERC, combined with the planned SQA Understanding Standards events, will not only provide reassurance to those who have delivered the practical assignment component in the past but also confidence for those where 2023/2024 will be the first delivery occasion.

We are already recalibrating our professional learning calendar for the next academic year to ensure that we provide planned, appropriately timed and new practical assignment ideas to support practitioners (teachers and technicians) for the 2025 practical assignments and project assessment components. <<

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