Level 3 Qualifications in Applied Sciences

July 2022

The Royal Society of Chemistry welcomes the news that, at present, funding will not be removed from Level 3 Qualifications in Applied Sciences. We call for the government to properly evaluate the potential impact of the removal of funding on chemistry and other STEMsubjects and give time for TLevels to embed so that their success in supporting progression can be assessed before further decisions about funding of these

-funded.

Key messages

- 1. Applied science qualifications such as BTEC and Cambridge Nationals support successful and flexible progression.
 - Applied science qualifications are achieved by around 25,000 students every year, the majority study BTEC qualificationsⁱⁱ. Many of these students progress to higher education; about 7% of students domiciled in England, Wales or Northern Ireland who are accepted onto a UK chemistry degree hold a BTECⁱⁱ. Students also progress from BTEC to degree study in related areas such as Biochemistry, Pharmacology and Environmental science as well as other areas of science.
 - Applied science qualifications can support progression directly into the workplace, or to study at levels 4 or 5. They can lead to an apprenticeship or be studied as part of an apprenticeship.
 - Level 3 BTEC students have good longitudinal outcomes. When students' characteristics are taken into account, earnings differentials for degree study are similar for the BTEC and A level routes, suggesting long-term outcomes are equivalent^{iv}.
 - The success of progression opportunities from T Levels are as yet unknown. Many universities
 are yet to state whether they will accept T Level achievers onto degrees in chemistry and other
 sciences. We are concerned that if progression opportunities are less flexible, T Levels may be
 less attractive to those students who do not want to commit at 16 to a specific technical
 occupation.
- 2. Alternatives to applied science qualifications may not be accessible or attractive to students creating a provision gap.

We are concerned that removing applied science qualifications will create a provision gap that will lead to a reduction in numbers of students studying on science pathways at level 3 and beyond. This is a significant concern for us, as many in our community are already concerned that chemistry student numbers have dropped from a high point in 2015[°].

- Chemistry and other science A Levels are widely perceived as being more difficult than many other A Level subjects. There is significant statistical evidence to suggest that grading standards across subjects are not aligned, meaning that chemistry is one of the hardest A Level subjects to achieve high grades in.^{vi}
- DfE transition matrices show that students on alternative routes frequently have lower GCSE grades. 75% of students have an average GCSE grade below 5 on the BTEC Extended Diploma Applied Science, compared to 5% for Alevel Chemistry^{vii}. Applied science qualifications provide a progression opportunity that would otherwise not exist.
- It is not clear whether T Levels will be able to accommodate similar numbers as the existing applied science routes. We expect that the requirement to deliver an industry placement, while

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