**Developing reflective assessment tasks to engage physics students with the key sustainability competencies**

Martin:

Sustainability has become part of the public discourse and The Open University has adopted sustainability as one of its strategic goals. The problem for educators is to engage students further with this crucial topic in a meaningful

way. This can be a challenge for academics, which are not experts when it comes to education for sustainability.

Therefore, our project tests the relatively simple task of using reflective assessment questions to embed sustainability as a first step. This eSTEeM project is situated in the School of Physical Sciences, which adds particular challenges to talking about sustainability as physics is a pure rather than applied subject, and a large body of established knowledge needs to be mastered leaving little time for debating sustainability related issues.

Bearing this in mind, we propose an approach covering all three undergraduate levels to progress students along the effective domain of Bloom's Taxonomy, shown here in a simplified version. This means that at the first level students engage with key sustainability competencies within, and outside, the sustainability context. At level two, students reflect on the advantages of further developing these competencies before they are guided at level three to rehearse some of them

again.

A student may spread their studies over a decade or more, we intend to introduce or reintroduce the main ideas of sustainability at each level before we reinforce it through VLE materials and assess it predominantly through reflective TMA questions. Here's the example of the level one physics module.

As you can see, we also considered other frameworks and we would like your input on these questions, so we look forward to hearing from you.

Thank you very much.