**Intellectual Output 2**
Teacher training materials - teacher generated

This Intellectual Output will form an integral part of the teacher training materials and be produced by teachers for teachers. Within this project **it will focus on generating a set of pre and in-service teacher training materials to be finalised and tested within the group at the Learning, Teaching and Training Event** and which will form a key part of the project’s online training programmes (IO4). It will draw on the resources created as part of IO1 but since it takes place in Year 2 will also have at its disposal some additional materials from IO3 – the teacher toolkit.

The resulting outputs will form the basis of a teacher training curriculum which will be a key feature of IO4. The process will begin with a ‘brief’ for teachers with reference to resources already generated by the project. The IO will outline a number of teacher training methodologies which can be developed by mainly by teachers (but with some support from pupils) working individually at first and then in collaboration with another school. At least one training activity will focus on training teachers in the collaborative authorship of eBooks.

The IO will include survey tools to enable schools to benchmark, monitor and evaluate a number of training models. Most importantly these will assess if the training activity is transferable to the classroom and if pupils’ attitudes to STEM subjects changes as a result of their involvement and especially if girls record significant changes.

Instructional materials for teachers in the pilot schools will be in the first language of the school. The principal output from this IO will be training materials including course programmes, training guidance, training activities and an exemplar eBook. The majority of the outputs will be digital in preparation for their inclusion in the online training programme.

**Activity 1 Construction of teacher training guidance materials** (UoH and CARDET lead)

Guidance on potential training formats (online and face to face)

**Objectives for each school and their national partner:**

1.1 Identify a specific Global STEM Challenge they would like to develop into a teacher training activity.
1.2 Identify a local partner school (looking ahead to trialling the training activity)

**Activity 2** **Design and trialling of staff training formats** (UoH and CARDET lead)

With support from their national partner schools develop **staff training activities** which bring together these key ingredients:
- Encouraging girls to choose STEM subjects
- Global education related to local issues
- Mobile technologies

**Objectives for each school and their national partner:**

2.1 Choose (or adapt) an in-service training format

2.2 Develop a training programme (input from the Challenge Champions and/or Challenge Creators?) that draws on materials and expertise from Year 1 of the project

2.3 Trial in school and in the local partner school

2.4 Record and evaluate

**Activity 3** Drafting teacher training resource - at Learning, Teaching and Training Event
 (Entire partnership)

**Objectives for the partnership working together:**

3.1 Creating a teacher training resource which will enable training providers to choose a training format and to locate supporting materials including resources, survey templates and guidance

This will feed the training curriculum outlined in **IO4.**

**Activity 4** User testing and refinement of outputs (Entire partnership)

4.1 Translations

4.2 Locating as part of IO3 (Toolkit)

**Pre-service:**

**Activity 1 Exploration of possible formats within established teacher training programmes**

**Activity 2 Preliminary meetings with Tutors and inputs for Student Teachers**

**Activity 3 Work in schools (plus some support where practical)**

**Activity 4 Case studies, interviews and evaluation (tutors and students)**