



Making Science Attractive to Female Students through Open Science Schooling Focused on Climate Change

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Science4Girls

Our Approach

The Science4Girls project engages teams of teenage female students in science missions in their community addressing local climate change challenges. The girls learn science through this open science schooling methodology – and through engaging deeply and long-term in local climate change missions, linked to a wide range of important science learning topics – at the same time following their own passions and preferences.

Nothing Has Worked!

Despite more than 30 years of focus on 'enthusing, fascinating or encouraging' girls into STEM, there has been NO CHANGE in the proportion of girls choosing physics A-level. It is clear that one-off interventions don't work. Initiatives that seek to 'encourage' girls into STEM by implying that girls must change to fit into the science world are misplaced. Competitions are also a risk.

Girls do not need competition to motivate them and are often more inspired by co-operative activity. And simply being a woman who works in STEM doesn't make someone an effective role model. Some role models are 'too perfect' and are therefore off-putting. For a girl, enjoying, being interested or being good at a subject isn't enough to persuade her to continue studying it – she has to be convinced that it has a value for her future and that it doesn't limit her future options.

"Not for people like me?" WISE, UK 2014



THE CONSORTIUM



KNOWLEDGE PARTNERS



SCHOOL PARTNERS





Project Aims and Participants Roles

The ultimate mission of the project is to offer secondary schools and science teachers practically useful guidance on how to create climate change based open science schooling for 12-16 years old female students – to allow them to create brand-new and much more attractive images of science and to more flexibly incorporate those images in their female identities.

STUDENTS' ROLE

The girl teams will explore the community and identify what they – based on female values – consider the most important local climate change prevention; they will design their climate change missions, and they will work with community resources to accomplish their climate change prevention missions.

Along the missions the girl teams are encouraged to link the local climate challenges to similar global challenges and engage with young people from other parts of the world, including with the girl teams from the other participating schools.

TEACHERS' ROLE

The science teachers will organise time-outs along the missions for science knowledge creation when relevant to the girls' science missions: knowledge on demand and when needed, not when scheduled.

The science teachers will build their capacity from the early phases of the project to guide and support the students' teams, including through several teacher empowerment developed and implemented throughout the project. In this way, teachers will build capacity to manage the new teachers' roles.

PROJECT'S ROLE

The project engages teams of students in science missions to be developed in their local community. The idea is to bring to identify and bring to the front the values that would make science learning attractive to all, including girls and boys that may otherwise not be interested in science learning.

The project addresses issues of unconscious bias in science education to rise awareness in teachers and students alike, while implementing missions towards caring for our planet.

UPCOMING EVENT – 5 DAYS STUDENTS MOBILITY IN LISBON, PORTUGAL

STAY TUNE FOR MORE NEWS FROM OUR PARTNERSHIP!
Science4Girls



Image source: <https://climate.nasa.gov/solutions/adaptation-mitigation/>

Science4Girl introduces 3 major learning innovations: a) science learning based on female values, b) open science schooling methodology and c) mission-based climate change engagement.

