

# An Easy-to-Integrate Way to Engage Secondary School Young Students in Science Learning



<https://youngsciencedetectives.eu/>

After a challenging year, the Open Science Schooling (OSS) project **Young Students as Critical Science Detectives** started 2021 trying to understand what educational impacts were generated through the implementation of the first round of the science missions.

In the first round of science missions, students identified and framed the research problems they were intrigued and interested in tackling, and they lead the discovery of solutions and innovations which helped them situate science in every-day life.

During the science mission implementation, a **parallel research on students' science identity was undertaken** to investigate how the OSS contributed to building a science identity. Science identity goes beyond a student willing to become "a scientist", involving also that students understand what scientific practices are from their own social experiences at school, family, and friends' circles. In addition, being recognized as a person who applies scientific practices is part of one's science identity. Therefore, the research investigated if students felt themselves as a scientist and felt to be recognized by significant others as a scientist after the project implementation.

Read in the main section some of the ongoing research highlights.

## Research Highlight

**STUDENTS** have showed a stronger science identity, recognizing themselves more as a scientist after the project mission. This result is thanks to the fact that when students engage in learning and applying scientific concepts in practice, it assures that students perceive that they are learning, that they know more and that they can do more science. This strengthens their own perception of being a scientist. Complementarily, when students have a stronger science identity, this reinforces their interest on learning and applying more science. It is a virtuous cycle.

**TEACHERS** actions and words have a strong impact on students' science identities. Therefore, we recommend teachers to implement everyday practices that:

- express how they believe that their students are learning science by opening science-related discussions and praising progress;
- develop science-related ways of thinking (e.g. critical thinking and ethical discussions);
- show how students have the potential to pursue a science profession by discussing students' career choices.

## FEATURE COUNTRY

LITHUANIA



## Pasvalys Levens School

Student teams reflected about what they can do to prevent the spread of the Covid-19 virus and to keep healthy together with their friends and families. They came to a common understanding that an affordable and simple solution would be to use local herbs for making healthy tea. In [this blog post](#) you can learn more in details about this exciting students' mission!

## The Consortium

