



I SEE

Bridging futures thinking to science education



Key recommendations from the I SEE project for making science teaching and learning relevant to students' futures and STEM careers

> Policymakers should...

Prioritize future-oriented scientific issues in curricula.

Allocate resources for schools to work with STEM experts who can inspire students as role models and expose them to authentic scientific practice.

Include future-scaffolding skills in science curricula to build students' capacity for imagination, adaptation, innovation, action competence and ethical leadership.

> ...so schools and teachers can...

Address the tension learners feel about the future and about science and technology's role in the future.

Engage students emotionally in aspiring towards a dream future for themselves and society.

Address the perceived irrelevance of science learning for future careers by presenting STEM tools and fields as part of the solutions to future challenges.

Expose students to outside experts as role models and relate their STEM career paths to the students on a personal level.

Give students opportunities to influence what and how they learn, and allow for multiple ways of participating in learning.

Make the value of diversity explicit and design activities where students' cultural, socio-economic and academic diversity is an important contribution.

> ...so students will...

Become co-investigators into the most future-relevant science topics, and see the kinds of STEM careers that are needed in these fields.

Expand their thinking about the future as one of many possible scenarios.

Apply STEM competences and futures perspectives to designing and planning a desirable future scenario.

Relate possible future scenarios to present actions.

Realize the diversity society needs for a desirable future.

Aspire towards STEM careers.