How can we ensure that students apply science to their lives?

ENGAGE aims to help students analyse emerging issues and develop informed opinions on science and technology. To do this, ENGAGE provides teachers with innovative curriculum materials and professional learning.

engage

Equipping the Next Generation for Active Engagement in Science

The Engage "RRI" curriculum

ENGAGE is part of the Responsible Research & Innovation (RRI) agenda to help Europe respond to societal challenges. We are equipping students to evaluate claims, weigh up science & values, argue opinions and compare solutions.

Science-in-society knowledge

Technology impact	Big science	Values thinking	Science media

Scientific inquiry skills

Define problems	Evaluate solutions	Construct arguments	Critique arguments	Interrogate media	Communicate ideas

EngagingScience.eu

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Seventh Framework Programme

60 inspiring Dilemmas

Research-based curriculum materials to help students learn how to analyse science and technology issues

What does the fox say?

Sound, Argument

We use the viral video to raise a serious question: can we understand animal talk? 'Bowlingual' detects a dog's emotions by analysing a bark's sound waves. Students look at emerging research to decide what else the technology can do. Can we translate the sound waves into human speech?

Grow your own body

Organs, Argument

As people live longer the demand for new organs to replace failed ones increases. Is it possible to build new organs in a dish from cells taken from the patient's body? Does this new technology offer a good alternative to transplants. Will we be able to build new organs to replace damaged ones within 10 years?

Ban Coke?

Health, Evidence

Now that scientists have discovered that sugar is like an addictive drug, pressure is building for action to reduce the amount of sugar children consume in soft drinks. What is the evidence for causal links between sugar consumption, obesity and disease? Is there enough strong evidence to ban sugary drinks?

Ebola: trial the vaccine?

Genetics, Decisions

The scenario is: scientists are fast tracking a vaccine to fight Ebola – will students volunteer to test it? They gather information from different sources, weigh up benefits and drawbacks and apply what they know about genes to decide if it is a risk worth taking.

6 Teaching Tools

Practical strategies for using socio-scientific issues as a curriculum approach

- **Dilemma Lessons** and **Case Studies** to make learning authentic
- **Group Discussions** and **Question Patterns** to build reasoning and understanding
- **Argument Framework** and **Gradual Release** to teach knowledge and skills

4 Integrated components

Workshops, Online Courses, a Community and the Materials work together to build expertise

Workshops

Learning from experts in socio-scientific teaching, explore all the ENGAGE components, and practise using the curriculum materials and Tools.

Online Courses

Flexible, inquiry-based modules for 'just in time' learning based on a cycle of conceptual input, classroom practice, reflection, and peer collaboration.

Community

Q&A support from project teachers, scientists and curriculum specialists on how to get the most from of the materials.

Curriculum Materials

Dilemmas to teach and apply science in society knowledge and inquiry, and open-ended projects to interact with scientists.