DRIVING QUESTION

CoReflect
Digital support for Inquiry Collaboration, and Reflection on Socio-Scientific Debates

Would you allow the growing of GM canola in your country?

LOCAL WORKING GROUP MEMBERS

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SCENARIO

- You have been asked to participate in a Cyprus-wide scientific board to decide whether the Cyprus government should allow the growing of genetically modified organisms (GMOs), specifically genetically modified (GM) canola.
- To decide you need to review scientific data on GM canola and its impact on humans. Canola is a very important product for economy and health as it is used for human consumption, and as a feed for animals. It is also used in industry as biofuel.
- At the moment, a large number of GMOs is imported by EU countries but few GM plants are cultivated on European land. There are strong opinions both for and against GMOs. You need to act soon. Your decision is very important.
- Examine data on the impact of GM canola on the environment, economy and health to give an evidence-based answer to the following question:

  Would you allow the growing of GM canola in your country?

LEARNING GOALS

By the end of the intervention students are expected to:

a. Demonstrate an understanding of biology concepts such as biotechnology, genetic engineering, and genetically modified organisms.
b. Evaluate the credibility of evidence by applying specific criteria.
c. Provide an evidence-based answer to the question whether they would allow the growing of GM canola in their country, taking three perspectives into consideration: the environment, economy and health.

INQUIRY ACTIVITY OVERVIEW

Students begun with two hands-on experiments: DNA extraction and gene transfer.

1-3 Anchoring activity. Inquiry in STOCHASMOS. Criteria for evaluating the credibility of evidence
4 Inquiry in STOCHASMOS, synthesis and decision
5 Peer feedback
6 Revisions based on peer feedback. Student presentations.
7 Student presentations. Revisions based on feedback. Submission of final reports.

PILOT ENACTMENT

Begin date: Jan.16th 2009

End date: Apr. 3rd 2009

Number of sessions: 11

Duration of each session: Weekly, 90-minute sessions

Grade level: 11th grade (16-17 years old)

Subject: Biology elective course titled "Humans and Health"

Number of participating students: 12

Enactment teachers: 1

WORKSPACE

The pilot WorkSpace environment consisted of three templates.

The first template supported students in creating evidence-based arguments.

The second template supported students in synthesizing their evidence.

The third template supported students in writing their final decision.

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