A Deweyan Method of Teaching Genetics: To Integrate Science and Ethics with Student-Centered Problem Solving

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How can we integrate the teaching of genetics with the teaching of ethical problem solving in the face of the momentous moral issues raised by genetics at the brink of the twenty-first century? Can we find a method of problem solving in morality that parallels the scientific method so successfully used in science?

By exploring what Dewey means by science and ethics and their analogous logic, this unit concretely demonstrates how one can teach a method of ethical problem solving adaptable for any genetic moral problem or personal life situation. The unit provides a performance based assessment instrument.

How can we teach genetics in such a way that students can be independent learners, follow interests of their own, and at the same time cover curriculum objectives and tackle interdisciplinary skills and issues? This unit was designed with the heart of John Dewey’s educational Copernican Revolution in mind. The student is placed at the center of the educational process and the curriculum revolves around his or her interests. The unit integrates evolution, genetics, sexuality and ethics into a single marking period unit.

(Recommended for Biology, grades 9-11)