

An Ethics Primer



Lesson ideas and ethics background

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Guide to Using the Primer

An Ethics Primer



Goals and Audience

Most of the secondary science teachers who shy away from incorporating ethics into their curricula are quite clear about the reasons they do so. First, they are uncomfortable with teaching ethics, a subject that science teachers often have very little experience with. Ethics as a discipline is full of unfamiliar terms and its own jargon. Secondly, teachers fear classroom discussions ‘getting out of control’, degenerating into a battle of opinions, or having parents and administrators confuse teaching about values and morals with teaching *particular* values and morals. Lastly, something as seemingly subjective as ethics can be perceived as somewhat out of place in a science classroom, where the focus is ostensibly on objectivity: “Why are we studying values in science class?” Ethics seems like just one more element in an already crowded curriculum. This primer focuses on tools and strategies for overcoming these barriers, as well as some perspective on the importance of addressing the ethical dimensions of science with students.

The primer is designed to *help science teachers in guiding their students to analyze issues in light of the scholarly discipline of ethics*. This Ethics Primer provides classroom-friendly lesson ideas for integrating ethical issues into a science curriculum. It also provides basic background on ethics as a discipline, with straightforward descriptions of major ethical theories. Several decision-making frameworks are included to help students apply reasoned analysis to ethical issues. The primer is designed to be flexible enough to use with many different types of topics and science content.

The primer is *not* intended to be used as a unit from cover to cover. Rather, teachers should review the strategies and resources that seem most suitable for their classes. Although this document is geared towards secondary science teachers, we hope that it will prove of broad value to educators across grade levels and subjects.

Preface

The Preface examines ethics as a unique discipline and outlines the core concepts to convey to students. It introduces one approach for distinguishing between the related terms ‘values’, ‘morals’, and ‘ethics’. Key features distinguishing ethics from other modes of thought are presented, and the relationship between ethics and science is explored. The Preface also provides rationale for teaching ethics in science, and addresses state and national science education standards.

Three key elements are necessary for effective teaching of ethical issues in science - lesson strategies, decision-making models, and student understanding of ethical perspectives and theories. A brief overview of these elements is provided in this section. Each element is further described in its own section of the Primer.

Ethics as a Discipline

This section provides summaries of ethical perspectives and theories that can be utilized in the decision-making process. The Process of Ethical Inquiry flow diagram provides a model for asking ethical questions, gathering relevant background, reasoning through an ethical dilemma, making and acting on a decision, and evaluating the outcome.

Lesson Strategies

This section provides ideas for general approaches to take with students when integrating ethics into the science classroom. An Ethics Classroom Strategies summary chart provides an overview of the approaches featured. In addition, rubrics for assessment/evaluation are presented.

Decision-Making Frameworks

Decision-Making Frameworks provide students with a way to structure their thinking. Elements of a sample decision-making model are discussed in this section. Alternative frameworks are also provided at the end of the text for that section.

Appendix

The Appendix provides resources and background for teachers seeking additional information.