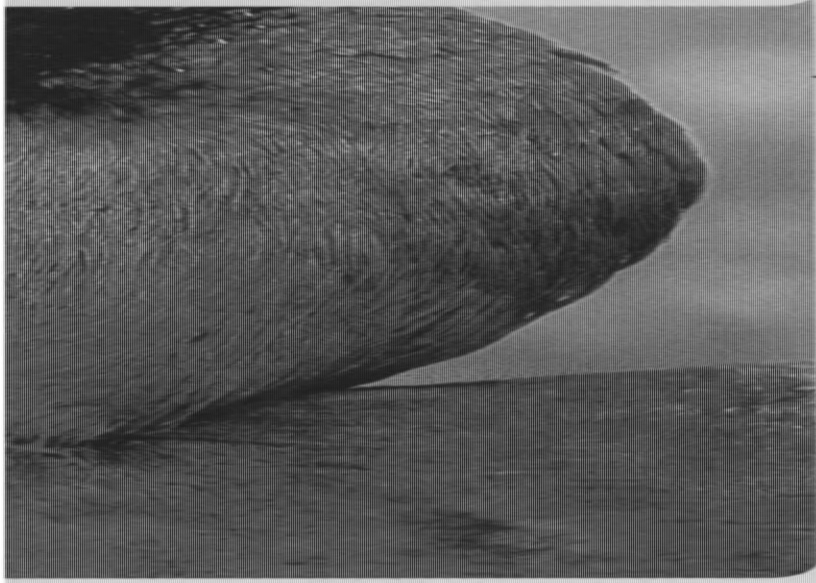


# CLASSROOM TECHNOLOGY REVIEWS



JOSÉ VÁZQUEZ

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BIOET

**Bloodlines: To Home.** (2003) Noel Schwer Media, 58 Har Francisco, CA 282-5620. E-mail: @backboneme e-mail for pricing Teacher's guide loaded from [bloodlines](#). Run minutes.

What does human? Although direct legal finalize such a definition may plex now and than it has be result of **Bloodlines: To Home** explore new life techn genetic testing technology, an animals that h the rhetoric of to be human.

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*Standards* (National Academy of Sciences, 1996) but also the link to the students' immediate surroundings.

Lectures 43-48 of the series are divided as follows: *What is Life?*, *Strategies of Life*, *Life's Molecular Building Blocks*, *Proteins*, *Cells - The Chemical Factories of Life*, and *Gregor Mendel, Founder of Genetics*. Each lecture includes an outline which begins with a "principle" and "scope." This type of organization allows instructors from various academic settings to easily follow the format as they wish. The outline is not comprehensive but clearly follows the main focus of the lecture. Each lecture is given by Professor Robert Hazen of George Mason University and the Carnegie Institution in Washington. Having co-authored a textbook on integrated science (*The Sciences: An Integrated Approach*, Wiley), Dr. Hazen is clearly an authority in presenting the subject matter in an engaging and effective manner. He uses wonderful visual materials to supplement his lectures. At the end of each lecture outline, there is a list of essential, as well as supplemental, reading along with some reflection questions to consider.

*What is Life?* discusses characteristics shared by organisms, categories of scientific questions applied to life, and taxonomy. Dr. Hazen keeps the pace smooth but never monotonous and ends the lecture making the viewer feel curious about what comes next. *Strategies of Life* looks at metabolism in the various kingdoms (or groups). Students will be introduced to general principles of metabolism without feeling overwhelmed by all the minute details usually presented in textbooks. Each group of organisms is presented in a balanced way and the audience could never be left sensing that one of group of organisms is more important than another. *Life's Molecular Building Blocks* deals pri-

marily with general principles of organic molecules presented in a context easily assimilated by any high school student. What is really remarkable about this lecture is the consistent reminder about the complexity of organisms based on relatively simple building blocks. In addition, the structure-function relationship of organic molecules is presented early so that a student can appreciate it as individual biomolecules are being discussed. *Proteins* are presented in a separate lecture in order to emphasize their importance as the "chemical workhorses of life" in diverse roles such as enzymes and structural components. The lecture connects the material to nutritional issues.

The lecture on *Cells - The Chemical Factories of Life* provides an impressive crash course in cell biology. It includes some historical vignettes to reiterate how reductionism (by studying cells and cellular structures) has led to a better understanding of the complexity of internal structures as well as in eukaryotic organisms. This lecture sets the stage beautifully for the role of the gene which is discussed in the next lecture. *Gregor Mendel, Founder of Genetics* provides an introduction to the importance of genetics and how Mendel's principles are among the greatest accomplishments in life science. Historical tidbits, basic principles of classical genetics such as the concept of the Punnett square, and the complexi-

ties that may arise when considering higher organisms such as humans make this lecture one of the most outstanding in the series.

**The Joy of Science** should be a mandatory purchase in every school library due to its breadth and depth. Any product that includes accurate facts about science and uses the latest technology to convey the most relevant information about the subject as well as relating the learning experience to national standards deserves a special place in anyone's personal library. Scientists, science teachers, and the lay person will be equally satisfied that The Teaching Company is taking our science seriously and aims to make education a serious but enjoyable experience.

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Don't Miss  
NABT's  
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October 8-11

See page 390 for details.