

## OAIMC Digital Titles - New 3/23/07

### Cell movement and transport

DV0230,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Once manufactured, molecules are packaged in membrane sacs for transport around the cell (and also for export) by the Golgi apparatus, a sort of shrink wrapper for the cells molecular products. One membrane-bound package is potentially deadly, the lysosome, a sac of digestive enzymes that if released into the cytoplasm would digest the cell from the inside. But the packaging is robust and lysosomes move about the cell, engulfing and digesting worn out parts, or in the case of cells that engulf bacteria and other food items (amoebas and certain white blood cells), the enzymes are put to work breaking down the food in cell stomachs called secondary lysosomes, or food vacuoles.

### The Cell unit of life

DV0231,DV Digital Video Disc  
EPIGA 2004 BioMedia Associates  
Provides more than thirty learning modules designed to inform middle school and basic biology students. Examines cell structures, energy, control and reproduction. Recounts the discovery of cells and the development of tools such as electron microscopes. Discusses the significance of DNA.

### Cellular respiration

DV0232,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Cellular respiration releases stored energy by breaking down food molecules such as sugars. Oxygen is consumed. Photosynthesis and cellular respiration complement each other bicycling CO<sub>2</sub> and O<sub>2</sub>. Photosynthesis produces the O<sub>2</sub> and food molecules that cellular respiration uses. Cellular respiration produces CO<sub>2</sub> that can be recycled into food by plants.

### Copyright Law: Internet and Multimedia Education for Schools

DV0244,DV Digital Video Disc  
EPIGA 2006 Visual Communication  
This program contains 11 individual titles that cover the following areas:  
1. Copyright 101, Ask before/after viewing: What does "the law" mean, what is copyright, name property that you own and how you would feel if it was taken without permission, if you have ever used copyrighted work to do an assignment or write a report, if so did you adhere to copyright law?  
2. Anti -Piracy 3. Music United/RIAA  
4. Downloading: 30 second video clip and FBI Warning: 1 minute video  
5. Making Movies: Motion Picture Association (MPAA) 10 minute video  
6.

Movie Licensing USA: public performance of home use video (entertainment, fund raisers, reward) 7. Fair Use and Multimedia Guidelines: 4 minute video. Is it legal to use 30 seconds of a song or movie for a classroom project? 8. Plagiarism, What is plagiarism, how do you give credit to someone for using their copyrighted words, photos or graphics? 9. Cyber-safe, 30 sec. music video 10. DMCA and TEACH Act 11. Acts of 2005: 1 minute video (STAFF)

### DNA replication and cell reproduction

DV0233,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. DNA Replication and Cell Reproduction. But, to communicate genetic instructions involves transcribing them to messenger RNA, sending the RNA copy through special pores in the membranes that make up the nuclear envelope and then translating the code for a particular protein a process that occurs on the ribosomes. Many of these proteins are the organic catalysts that mediate and control the chemical processes of life.

### Genetic code and protein synthesis

DV0234,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Breaking the DNA code, and the explosion of molecular genetics that followed, have defined biology for a half-century. Modifying the code to create special traits in work horse organisms such as the bacterium E.coli is now a major biotechnology industry that has led to modifying genes, and splicing genes between species with often remarkable, if controversial, results. All of this work rests on a simple principle. The genetic code is a code that specifies the precise structure for the millions of kinds of proteins found in living things.

### How cells are controlled

DV0235,DV Digital Video Disc  
EPIGA 2004 BioMedia Associates  
Provides more than thirty learning modules designed to inform middle school and basic biology students. Examines cell structures, energy, control and reproduction. Recounts the discovery of cells and the development of tools such as electron microscopes. Discusses the significance of DNA.

### How cells obtain energy

DV0236,DV Digital Video Disc  
EPIGA 2004 BioMedia Associates  
Provides more than thirty learning modules designed to inform middle school and basic biology students. Examines cell structures, energy, control and reproduction. Recounts the

discovery of cells and the development of tools such as electron microscopes. Discusses the significance of DNA.

### How cells reproduce

DV0237,DV Digital Video Disc  
EPIGA 2004 BioMedia Associates  
Provides more than thirty learning modules designed to inform middle school and basic biology students. Examines cell structures, energy, control and reproduction. Recounts the discovery of cells and the development of tools such as electron microscopes. Discusses the significance of DNA.

### Organic molecules

DV0238,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. teaches basic organic chemistry by illustrating carbon bonding patterns. It identifies the four types of biological macromolecules common to all living things and their building blocks: complex carbohydrates from sugar building blocks; fats (lipids) from fatty acid building blocks; proteins from amino acid building blocks; nucleic acids from nucleotide building blocks. It illustrates how these biological polymers are constructed from their building blocks through condensation reaction. Starch polymer formed through condensation reactions.

### The Outer envelope

DV0239,DV Digital Video Disc  
EPIGA 2004 BioMedia Associates  
Provides more than thirty learning modules designed to inform middle school and basic biology students. Examines cell structures, energy, control and reproduction. Recounts the discovery of cells and the development of tools such as electron microscopes. Discusses the significance of DNA.

### Overview of living cells

DV0240,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Looking closer, as with an electron microscope, we see that the plasma membrane, the cells outer envelope, is a double layer of lipid molecules, the molecules in each layer shifting and trading places thousands of times a second, giving the membrane tremendous fluidity while still enclosing and protecting the cell content from a hostile outer world. Christian de Duve, a pioneering cell biologist, likens a cell to a cherry. The cherry skin represents the plasma membrane. The juicy pulp, the cytoplasm and cytosol. The pit represents the cell nucleus. All nucleated cells, from those two hundred or so kinds that make up a human body to the protozoan and algae cells that live independent lives in ponds and

oceans, have this cherry-like organization.

**Photosynthesis**

DV0241,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Photosynthesis uses light energy to make molecules that fuel the processes of life. During photosynthesis, raw materials, carbon dioxide and water are converted into energy-rich fuel molecules such as sugars and fatty acids. Plant cells contain rounded green bodies called chloroplasts. Just as mitochondria had their evolutionary beginnings as aerobic symbionts, chloroplasts evolved from photosynthetic symbionts. Chloroplasts retain some of their original DNA and carry out their own reproduction, independent of the plant cells in which they now live.

**Put the brakes on bullying**

DV0242,DV Digital Video Disc  
EPIJSGA 2006 LANDMK  
Put the Brakes on Bullying is a video about the importance of identifying and resolving bullying incidents in their early stages. The program is designed to help teachers, adults and children recognize the signs of bullying and illustrates what steps schools, teachers, parents, and individuals can take to prevent bullying. Stopping bullying in early childhood years is important in order to avoid bullying becoming a major problem in teen and adult years. Research has shown that the effects of bullying on children who are victims can last a lifetime. Self-esteem often suffers and the individuals can feel isolated from their peer group. Bullying is a community issue that demands a community response. The video is an invaluable resource for any organization concerned with the damaging effects of violence, intimidation and verbal abuse among young people. The video identifies the issues clearly and offers practical, expert advice for youth leaders, parents and students on how to spot, prevent and correct bullying problems before they take root.

**Viruses and HIV**

DV0243,DV Digital Video Disc  
EPIJSGA 2003 BioMedia Associates  
Narrated video and animated segments convey processes of cellular biology. Viruses are infectious particles consisting of viral genes and a protein shell called a capsid. The shell can be helical, polyhedral or more complex in shape. It is made of protein subunits called capsomeres. Some viruses have viral envelopes that cloak their capsid. The most complex virus structures are bacteriophages, viruses that infect bacteria. AIDS, acquired immunodeficiency syndrome - An incurable (at the time of this writing) disease that results from infection by the human immunodeficiency (HIV) virus.

AIDS symptoms build up as the concentration of HIV viruses in the body increases, usually over a period of years. Eventually, AIDS victims lose their abilities to fight infections.