

UNIT I: The Chemistry of Life

Biofuels: What Will We Do When We Run Out of Oil? (Issues Essay)
David Bird, *Mount Royal University*

Bubbles in Foods: Softness, Sweetness, and Light (Concept Essay)
Martin G. Scanlon, *University of Manitoba*

Choline Metabolism and Transport: The Sunny Side of Eggs (Research Essay)
Vera Michel and Marica Bakovic, *University of Guelph*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT II: The Cell

A Matter of Life and Death: Viruses Inhibit Cell Suicide (Concept Essay)
Logan Banadyga and Michele Barry, *University of Alberta*

Adult Neurogenesis: Hormones and Sex Are Good for Your Brain (Concept Essay)
Sarah Hewitt, *Mount Royal University*

Cancer Biomarkers: What Are They, and How Do We Use Them to Personalize Cancer Treatment? (Issues Essay) Graham Dellaire, *Dalhousie University*

Epigenetics: You Inherit More than Your Genes (Concept Essay)
Samantha A. Beck, *University of British Columbia*

Genomes Large and Small: The Evolution of Genome Size in Eukaryotes (Concept Essay) T. Ryan Gregory, *University of Guelph*

Neuropathic Pain: Are You Too Sensitive? (Research Essay)
Sarah Hewitt, *Mount Royal University*

Radioisotopic Imaging: Taking a Picture in order to See Clearly (Issues Essay)
Nathan Ackroyd, *Mount Royal University*

Singulair Success: A Drug Discovery Classic (Issues Essay)
Alyson L. Kenward

The Grad Student Life: Thinking outside the Textbook: (Concept Essay)
Logan Banadyga, *University of Alberta*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT III: Genetics

Arabidopsis Thaliana, a Model Organism for Molecular Genetic Studies in Plants: How and Why Was Arabidopsis Chosen over Other Plants? (Concept Essay)
George Haughn and Ljerka Kunst, *University of British Columbia*

Barcoding Biodiversity: The Use of DNA Sequences to Identify Species (Concept Essay) T. Ryan Gregory, *University of Guelph*

Biotechnology and Human Health: Producing Therapeutic Protein in Transgenic Plants (Issues Essay) Ron Wilen, *University of the Fraser Valley*

Bitter Taste: Genetics and Plant Secondary Compounds (Concept Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Cancer Biomarkers: What Are They, and How Do We Use Them to Personalize Cancer Treatment? (Issues Essay) Graham Dellaire, *Dalhousie University*

Epigenetics: You Inherit More than Your Genes (Concept Essay)
Samantha A. Beck, *University of British Columbia*

Gender Differences in Children's Toy Preferences: Biologically Determined or Socially Conditioned? (Research Essay)
Evelyn F. Field, *Mount Royal University*

Genomes Large and Small: The Evolution of Genome Size in Eukaryotes (Concept Essay) T. Ryan Gregory, *University of Guelph*

Identifying Proteins Involved in Plant Cell Wall Modification: How Forward Genetics Can Be Used to Study Biology (Research Essay)
George Haughn, *University of British Columbia*

Japanese Knotweed: Invasion of the Clones? (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Maintenance of Genome Stability: Why Breaking Up Is Hard to Do (Concept Essay) Ebba U. Kurz, *University of Calgary*

Maternal Stress: Is My Mother Harming or Helping Me? (Research Essay)
Oliver P. Love, *University of Windsor*

Resistance to Antimalarial Drugs: Adaptive Evolution and Genetic Interactions (Research Essay)
Rick J. Scavetta, *The Max Planck Institute for Evolutionary Biology*

Seasonal Affective Disorder and Circadian Rhythms: Do You Get the Wintertime Blues? (Issues Essays) Sarah Hewitt, *Mount Royal University*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Myriad Causes of Autism: Structural Variation is a Significant Contributor (Research Essay)
Rick J. Scavetta, *The Max Planck Institute for Evolutionary Biology*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT IV: Mechanisms of Evolution

Maternal Stress: Is My Mother Harming or Helping Me? (Research Essay)
Oliver P. Love, *University of Windsor*

Resistance to Antimalarial Drugs: Adaptive Evolution and Genetic Interactions (Research Essay)
Rick J. Scavetta, *The Max Planck Institute for Evolutionary Biology*

Speciation and the Threespine Stickleback: The New Fishes of Paxton Lake (Issues Essay) Joan Sharp, *Simon Fraser University*

The Burgess Shale and the Cambrian Explosion: Evolution in the Rear-View Mirror (Concept Essay) Heather Jamniczky, *University of Calgary*

The Evolution of the Vertebrate Jaw: How Would You Eat without One? (Concept Essay) Julia C. Boughner, *University of Saskatchewan*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT V: The Evolutionary History of Biological Diversity

A Matter of Life and Death: Viruses Inhibit Cell Suicide (Concept Essay)
Logan Banadyga and Michele Barry, *University of Alberta*

Barcoding Biodiversity: The Use of DNA Sequences to Identify Species (Concept Essay) T. Ryan Gregory, *University of Guelph*

Japanese Knotweed: Invasion of the Clones? (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Invertebrates in Medicine: Maggots, Leeches, and Hookworms (Issues Essay)
Sharon L. Gillies, *University of the Fraser Valley*

New Species Right Before Our Eyes: How Birdfeeders Can Influence Speciation (Research Essay) Sarah Hewitt, *Mount Royal University*

Speciation and the Threespine Stickleback: The New Fishes of Paxton Lake (Issues Essay) Joan Sharp, *Simon Fraser University*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT VI: Plant Form and Function

Arabidopsis Thaliana, a Model Organism for Molecular Genetic Studies in Plants: How and Why Was Arabidopsis Chosen over Other Plants? (Concept Essay) George Haughn and Ljerka Kunst, *University of British Columbia*

Bitter Taste: Genetics and Plant Secondary Compounds (Concept Essay)
Sharon L. Gillies, *University of the Fraser Valley*

CO2 Levels and Plants: What's So Wrong with a Greenhouse? (Issues Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Gene Programming: How Many Genes Does It Take to Program a Seed? (Research Essay) Mark Belmonte, *University of Manitoba*

Identifying Proteins Involved in Plant Cell Wall Modification: How Forward Genetics Can Be Used to Study Biology (Research Essay)
George Haughn, *University of British Columbia*

Japanese Knotweed: Invasion of the Clones? (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Phytoremediation: Plants to the Rescue (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT VII: Animal Form and Function

A Most Pervasive Prion Disease: Chronic Wasting Disease Continues to Spread and Shows No Signs of Slowing (Issues Essay)
Sandra Haney, and Michelle Wong, *PrioNet Canada*
Lynne Foster and Alberta Prion, *Research Institute*

Barcoding Biodiversity: The Use of DNA Sequences to Identify Species (Concept Essay) T. Ryan Gregory, *University of Guelph*

Bitter Taste: Genetics and Plant Secondary Compounds (Concept Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Bubbles in Foods: Softness, Sweetness, and Light (Concept Essay)
Martin G. Scanlon, *University of Manitoba*

Connecting Salamander Habitat in Waterton Lakes National Park: Building Tunnels to Love (Issues Essay)
Niki Wilson and Barbara Johnston, *Parks Canada*

Choline Metabolism and Transport: The Sunny Side of Eggs (Research Essay)
Vera Michel and Marica Bakovic, *University of Guelph*

Human Adaptation to High Altitude Hypoxia: Getting High (Concept Essay)
Trevor A. Day, *Mount Royal University*

New Species Right Before Our Eyes: How Birdfeeders Can Influence Speciation (Research Essay) Sarah Hewitt, *Mount Royal University*

Singular Success: A Drug Discovery Classic (Issues Essay)
Alyson L. Kenward

Speciation and the Threespine Stickleback: The New Fishes of Paxton Lake (Issues Essay) Joan Sharp, *Simon Fraser University*

The Grad Student Life: Thinking outside the Textbook (Concept Essay)
Logan Banadyga, *University of Alberta*

The Myriad Causes of Autism: Structural Variation is a Significant Contributor (Research Essay) Rick J. Scavetta, *The Max Planck Institute for Evolutionary Biology*

The Process of Science: Brain Food (Concept Essay)
Jay Ingram, *Discovery Channel*

UNIT VIII: Ecology

A Most Pervasive Prion Disease: Chronic Wasting Disease Continues to Spread and Shows No Signs of Slowing (Issues Essay)
Sandra Haney and Michelle Wong, *PrioNet Canada*
Lynne Foster and Alberta Prion, *Research Institute*

Barcoding Biodiversity: The Use of DNA Sequences to Identify Species (Concept Essay) T. Ryan Gregory, *University of Guelph*

Biofuels: What Will We Do When We Run Out of Oil? (Issues Essay)
David Bird, *Mount Royal University*

Butterfly Hearing: Wings Aren't Just for Flying Anymore (Research Essay)
Sarah Hewitt, *Mount Royal University*

CO2 Levels and Plants: What's So Wrong with a Greenhouse? (Issues Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Connecting Salamander Habitat in Waterton Lakes National Park: Building Tunnels to Love (Issues Essay)
Niki Wilson and Barbara Johnston, *Parks Canada*

Forensic Entomology: Using Insects to Solve Crimes (Concept Essay)
Gail S. Anderson, *Simon Fraser University*

Japanese Knotweed: Invasion of the Clones? (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Phytoremediation: Plants to the Rescue (Research Essay)
Sharon L. Gillies, *University of the Fraser Valley*

Speciation and the Threespine Stickleback: The New Fishes of Paxton Lake (Issues Essay) Joan Sharp, *Simon Fraser University*

Sustainable Agriculture: How Can We Eat without Wrecking the Place? (Issues Essay) Brenda Frick, *University of Saskatchewan*

The Burgess Shale and the Cambrian Explosion: Evolution in the Rear-View Mirror (Concept Essay) Heather Jamniczky, *University of Calgary*

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Logan Banadyga, *University of Alberta*

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