

## How *Science and Global Issues* is organized:

SGI UNIT	SCIENCE CONTENT	ISSUE FOCUS
<b>Sustainability</b>	Sustainability Indicators Life cycle of products Correlation and causality	Aspects of sustainability from a personal, community, and global perspective
<b>Ecology: Living on Earth</b>	Biomes Stability and change in ecosystems Invasive species Population dynamics Energy flow through ecosystems Carbon and nitrogen cycles Photosynthesis and cellular respiration Symbiotic relationships Predator–prey relationships	Sustainability from an ecosystems perspective, with a focus on humans' impacts on ecosystems  Making decisions regarding fisheries management
<b>Cell Biology: World Health</b>	Cellular nature of life Cell structure and function Cell specialization and differentiation Cell division and the cell cycle Microbes and infectious diseases Breakdown of cellular function in diseases, such as diabetes and cancer Respiration, photosynthesis, and cellular macromolecules	Disparities between developing and developed countries in terms of diseases' impacts on life  Making decisions about priorities for disease interventions to prevent or treat diseases that limit social, economic, and environmental progress
<b>Genetics: Feeding the World</b>	Sexual and asexual reproduction Mitosis and meiosis Genotype and phenotype Mendel's research Genetic crosses, Punnett squares, and pedigrees Patterns of inheritance Genes, alleles, chromosomes, and DNA Flow of genetic information Selective breeding Genetically modified organisms	Comparison of selective breeding and genetic modification  Use of genetically modified organisms, particularly in the production of agricultural crops
<b>Evolution: Maintaining Diversity</b>	Biodiversity Ecosystem services and humans' impact on species Natural selection and adaptation Darwin's research Geologic time Interpreting the fossil record Phylogeny Microevolution and macroevolution Biological species concept and speciation The genetic basis of evolution	Conserving genetic, species, and ecosystem diversity  Ecosystems services and intrinsic value models for conservation