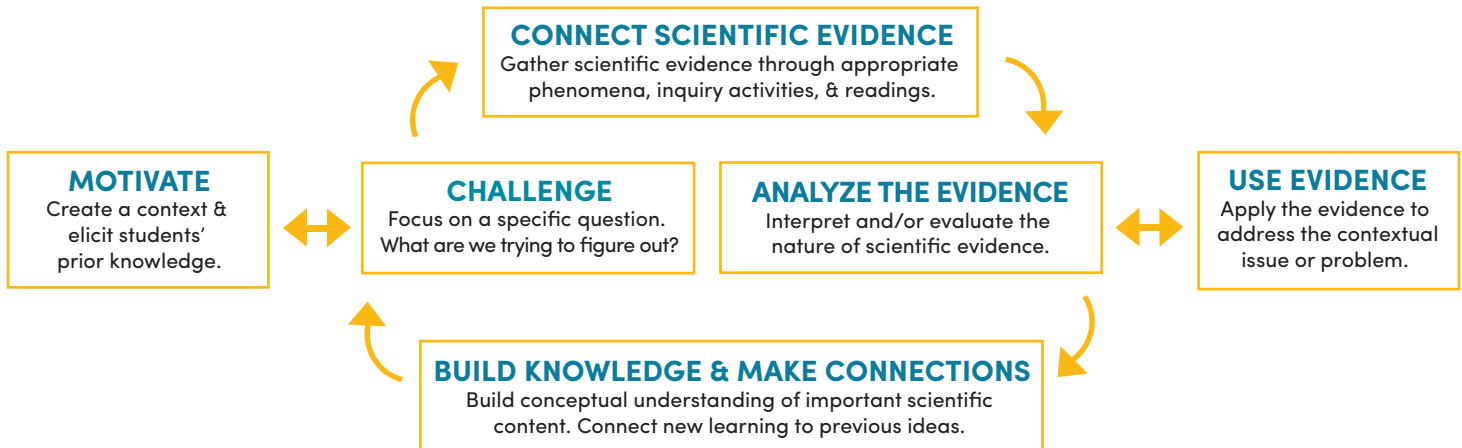


UNIT ISSUE CREATES STORYLINE

This forms a coherent progression of science practices & content set in the context of a strong narrative that makes it personally relevant.



Science & Global Issues: Biology UNIT INFORMATION

Sustainability (2 weeks) Individual Unit Materials: SGI-BA-2000 / Individual Unit Book: SGI-BA-2SB

How do we meet our present needs without compromising the ability of future humans to meet theirs?

Core Science Content: Ecological systems, resiliency, resource use and availability, ecological footprint, making sustainable decisions

NGSS Alignment: Working towards the following HS PEs: ETS1-1, ETS1-3

Ecology: Living on the Earth (6–9 weeks) Individual Unit Materials: SGI-BB-2000 / Individual Unit Book: SGI-BB-2SB

How can we manage ecosystems for maximum productivity and minimal environmental impact?

Core Science Content: Energy flow through ecosystems, global ecosystems, population ecology, photosynthesis and respiration

NGSS Alignment: Working towards the following HS PEs: ETS1-1, ETS1-3, LS1-5, LS1-6, LS1-7, LS2-3, LS2-4, LS2-5, LS2-6, LS2-7

Cell Biology: World Health (6–8 weeks) Individual Unit Materials: SGI-BC-2000 / Individual Unit Book: SGI-BC-2SB

How should we best respond to global diseases and world health issues?

Core Science Content: Structure and function of animal and plant cells, cell specialization, basic biochemistry, disease-causing microbes

NGSS Alignment: Working towards the following HS PEs: ETS1-1, ETS1-3, LS1-1, LS1-2, LS1-4, LS1-5, LS1-6, LS1-7, LS3-2

Genetics: Feeding the World (6–9 weeks) Individual Unit Materials: SGI-BD-2000 / Individual Unit Book: SGI-BD-2SB

Enhanced Material Packages: Creating Genetically Modified Bacteria Activity Kit SGI-LM06 & Electrophoresis Chamber SGI-P011

What are the trade-offs of using genetically modified foods?

Core Science Content: Phenotype, genotype, traits, DNA replication, mutations, protein synthesis, gene expression, mitosis, meiosis, genetic engineering

NGSS Alignment: Working towards the following HS PEs: ETS1-1, ETS1-3, LS1-1, LS1-4, LS3-1, LS3-2, LS3-3

Evolution: Maintaining Biodiversity (4–6 weeks) Individual Unit Materials: SGI-BE-2000 / Individual Unit Book: SGI-BE-2SB

How can we maintain global biodiversity with respect to economic and environmental concerns?

Core Science Content: Levels of biodiversity, introduction to phylogeny, evolutionary processes and natural selection, speciation, evidence for natural selection

NGSS Alignment: Working towards the following HS PEs: ETS1-1, ETS1-3, LS4-1, LS4-2, LS4-3, LS4-5, LS4-6