Academic Standards

Next Generation Science Standards

Interdependent Relationships in Ecosystems

MS-LS-2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

HS-LS-2.1. Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

HS-LS-2.7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

HS-LS-2.8. Evaluate evidence for the role of group behavior on individual and species' chances to survive and reproduce.

Human Impacts

MS-ES-3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

MS-ES-3-4. Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

Common Core State Standards

Anchor Standards

CCSS.ELA-Reading.CCRA.RL.1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

CCSS.ELA-Literacy.CCRA.W.7. Conduct short as well as more sustained research projects based on focused questions demonstrating understanding of the subject under investigation.

CCSS.ELA-Literacy.CCRA.SL.4. Present information , findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

College, Career, & Civic Life–C3 Framework for Social Studies State Standards

Economic Decision Making

D2.Eco.2.6-8. Evaluate alternative approaches or solutions to current economic issues in terms of benefits and costs for different groups and society as a whole.

D2.Eco.2.9-12. Use marginal benefits and marginal costs to construct an argument for or against an approach or solution to an economic issue.

Human Environment Interaction: Place, Regions, and Culture

D2.Geo.4.6-8. Explain how cultural patterns and economic decisions influence environments and the daily lives of people in both nearby and distant places.

D2.Geo.4.9-12. Analyze relationships and interactions within and between human and physical systems to explain reciprocal influences that occur among them.

D2.Geo.6.6-8. Explain how the physical and human characteristics of places and regions are connected to human identities and cultures.

D2.Geo.9.9-12. Evaluate the influence of long-term climate variability on human migration and settlement patterns, resource use, and land uses at local-to-global scales.

Developing Claims and Using Evidence

D3.4.6-8. Develop claims and counterclaims while pointing out the strengths and limitations of both.

D3.4.9-12. Refine claims and counterclaims attending to precision, significance, and knowledge conveyed through the claim while pointing out the strengths and limitations of both.

Communicating and Critiquing Conclusions

D4.2.6-8. Construct explanations using reasoning, correct sequence, examples, and details with relevant information and data, while acknowledging the strengths and weaknesses of the explanations.

D4.2.9-12. Construct explanations using sound reasoning, correct sequence (linear or non-linear), examples, and details with significant and pertinent information and data, while acknowledging the strengths and weaknesses of the explanation given its purpose (e.g., cause and effect, chronological, procedural, technical).

Taking Informed Action

D4.6.6-8. Draw on multiple disciplinary lenses to analyze how a specific problem can manifest itself at local, regional, and global levels over time, identifying its characteristics and causes, and the challenges and opportunities faced by those trying to address the problem.

D4.6.9-12. Use disciplinary and interdisciplinary lenses to understand the characteristics and causes of local, regional, and global problems; instances of such problems in multiple contexts; and challenges and opportunities faced by those trying to address these problems over time and place.