Learning from Nature: 
Biomimicry Design Challenge 
Georgia Standards of Excellence (GSE)

**Visual Arts:**

**Grade 4**
VA4.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning. 
VA4.RE.1 Discuss personal works of art and the artwork of others to enhance visual literacy. 
VA4.CN.3 Develop life skills through the study and production of art (e.g. collaboration, creativity, critical thinking, communication).

**Grade 5**
VA5.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning. 
VA5.RE.1 Discuss personal works of art and the artwork of others to enhance visual literacy. 
VA5.CN.3 Develop life skills through the study and production of art (e.g. collaboration, creativity, critical thinking, communication).

**Grade 6**
VA6.CR.1 Visualize and generate ideas for creating works of art. 
VA6.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. 
VA6.RE.3 Engage in the process of art criticism to make meaning and increase visual literacy. 
VA6.CN.3 Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom.

**Grade 7**
VA7.CR.1 Visualize and generate ideas for creating works of art. 
VA7.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. 
VA7.RE.3 Engage in the process of art criticism to make meaning and increase visual literacy 
VA7.CN.3 Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom

**Grade 8**
VA8.CR.1 Visualize and generate ideas for creating works of art. 
VA8.CR.3 Engage in an array of processes, media, techniques, and/or technology through experimentation, practice, and persistence. 
VA8.RE.3 Engage in the process of art criticism to make meaning and increase visual literacy.
VA8.CN.3: Utilize a variety of resources to understand how artistic learning extends beyond the walls of the classroom

**Grades 9-12**

**Applied Design**
VAHSAD.CR.1 Visualize and generate ideas for creating applied design art products and/or designs.
VAHSAD.CR.2 Choose from a range of materials and methods of traditional and contemporary artistic practices to plan and create applied design art products and designs.
VAHSAD.CR.3 Engage in an array of processes, media, techniques, and technology through experimentation, practice, and persistence.

**Science:**

**Grade 4**
S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem.

**Grade 5**
S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.

**Grade 6**
S6E4. Obtain, evaluate, and communicate information about how the sun, land, and water affect climate and weather.
S6E6. Obtain, evaluate, and communicate information about the uses and conservation of various natural resources and how they impact the Earth.

**Grade 7**
S7L1. Obtain, evaluate, and communicate information to investigate the diversity of living organisms and how they can be compared scientifically
S7L2. Obtain, evaluate, and communicate information to describe how cell structures, cells, tissues, organs, and organ systems interact to maintain the basic needs of organisms.
S7L4. Obtain, evaluate, and communicate information to examine the interdependence of organisms with one another and their environments.
S7L5. Obtain, evaluate, and communicate information from multiple sources to explain the theory of evolution of living organisms through inherited characteristics.

**Grade 9-12**

**Biology**
SB5. Obtain, evaluate, and communicate information to assess the interdependence of all organisms on one another and their environment.

**Botany**
SBO1. Obtain, evaluate, and communicate information to analyze the nature of the relationships between plant morphological structures and anatomical structures, functions, and processes.
SBO5. Obtain, evaluate, and communicate information to analyze the diversity of plant adaptations and responses to changing environmental conditions.
SBO6. Obtain, evaluate, and communicate information to analyze the economic and ecological importance of plants in human society.

**Environmental Science**
SEV1. Obtain, evaluate, and communicate information to investigate the flow of energy and cycling of matter within an ecosystem.
SEV4. Obtain, evaluate, and communicate information to analyze human impact on natural resources.

**Zoology**
SZ1. Obtain, evaluate, and communicate information to derive the phylogeny of animal taxa using informative characteristics.
SZ4. Obtain, evaluate, and communicate information to assess how animals interact with their environment and one another.