



ZIIBIWING CENTER

of Anishinabe Culture & Lifeways

THE SAGINAW CHIPPEWA INDIAN TRIBE OF MICHIGAN

Waasagaak/Black Ash Baskets Curriculum Tie-Ins

Special thanks to the Michigan Department of Education for allowing us to publish these curriculum points on our Ziibiwing Center website. The complete MDE standards and curriculum documents may be accessed at:
<http://www.michigan.gov/mde/0,1607,7-140-28753---,00.html>

Kindergarten

Social Studies

- K-H2.0.3** → Identify the beginning, middle, and end of historical narratives or stories.
- K-H2.0.4** → Describe ways people learn about the past (e.g., photos, artifacts, diaries, stories, videos).
- K-G5.0.1** → Describe ways people use the environment to meet human needs and wants (e.g., food, shelter, clothing).
- K-E1.0.3** → Recognize situations in which people trade.

Science

- S.IP.E.1** → Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
 - S.IP.00.11** → Make purposeful observation of the natural world using the appropriate senses.
 - S.IP.00.12** → Generate questions based on observations.
- S.IA.E.1** → Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
 - S.IA.00.14** → Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).
- P.FM.E.1** → **Position**- A position of an object can be described by locating the object relative to other objects or a background.
 - P.FM.00.11** → Describe the position of an object (for example: above, below, in front of, behind, on) in relation to other objects around it.

L.OL.E.1→ Life Requirements- Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.

L.OL.00.11→ Identify that living things have basic needs.

E.SE.E.1→ Earth Materials- Earth materials that occur in nature include rocks, minerals, soils, water, and the gases of the atmosphere. Some Earth materials have properties which sustain plant and animal life.

E.SE.00.12→ Describe how Earth materials contribute to the growth of plant and animal life. *

English Language Arts

L.CN.00.02→ Students will ask appropriate questions during a presentation or report.

L.CN.00.03→ Students will listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g. eye contact, attentive, supportive) in small and large group settings; listen to each other, interact, and respond appropriately.

Arts Education

ART.VA.III.K.1→ Explore and discuss why artists create.

ART.VA.III.K.2→ Recognize that art can be created for self-expression or fun.

ART.VA.III.K.3→ Describe the sensory qualities in a work of art.

ART.VA.IV.K.1→ Understand that humans from all cultures, past or present, have created art.

ART.VA.IV.K.2→ Identify and talk about artwork found around the world.

ART.VA.V.K.3→ Identify how pattern, shape, rhythm, and movement are used throughout the arts.

ART.VA.V.K.4→ Explore connections between the visual arts and other curriculum.

1st Grade

Social Studies

1-H2.0.4→ Retell in sequence important ideas and details from stories about families or schools.

1-H2.0.5→ Use historical records and artifacts (e.g., photos, diaries, oral histories, and videos) to draw possible conclusions about family or school life in the past.

- 1-H2.0.6**→ Compare life today with life in the past using the criteria of families, school, jobs, or communication.
- 1-G4.0.1**→ Use components of culture (e.g., foods, language, religion, traditions) to describe diversity in family life.
- 1-G5.0.1**→ Describe ways in which people modify (e.g., cutting down trees, building roads) and adapt (e.g., clothing, housing, transportation) to the environment.
- 1-E1.0.4**→ Describe reasons why people voluntarily trade.
- 1-E1.0.5**→ Describe ways in which people earn money (e.g., providing goods and services to others, jobs).

Science

- S.IP.E.1**→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
 - S.IP.01.11**→ Make purposeful observation of the natural world using the appropriate senses.
 - S.IP.01.12**→ Generate questions based on observations.
- S.IA.E.1**→ Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
 - S.IA.01.12**→ Share ideas about science through purposeful conversation.
 - S.IA.01.13**→ Communicate and present findings of observations.
 - S.IA.01.14**→ Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).
- S.RS.E.1**→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history.
 - S.RS.01.11**→ Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- P.PM.E.1**→ **Physical Properties**- All objects and substances have physical properties that can be measured.
 - P.PM.01.11**→ Demonstrate the ability to sort objects according to observable attributes such as color, shape, size, sinking or floating.
- E.ES.E.1**→ **Solar Energy**- The sun warms the land, air and water and helps plants grow.

E.ES.01.11→ Identify the sun as the most important source of heat which warms the land, air, and water of the Earth.

E.ES.01.12→ Demonstrate the importance of sunlight and warmth in plant growth.

English Language Arts

L.CN.01.02→ Students will ask appropriate questions for clarification and understanding during a presentation or report.

L.CN.01.03→ Students will listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g. eye contact, attentive, supportive) in small and large group settings; listen to comments of a peer and respond on topic adding a connected idea.

Arts Education

ART.VA.IV.1.2→ Describe how the subject matter of artwork may be connected to the environment in which it was created.

ART.VA.IV.1.3→ Give examples that illustrate how artwork of different groups is influenced by the environment in which it was created.

ART.VA.V.1.1→ Recognize art forms created for functional and recreational purposes.

ART.VA.V.1.2→ Identify artists in the community.

2nd Grade

Social Studies

2-G4.0.3→ Use components of culture (e.g., foods, language, religion, traditions) to describe diversity in the local community.

2-G5.0.1→ Suggest ways people can responsibly interact with the environment in the local community.

Science

S.IP.E.1→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

S.IP.02.11→ Make purposeful observation of the natural world using the appropriate senses.

S.IP.02.12→ Generate questions based on observations.

S.IA.E.1→ Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.

- S.IA.02.12**→ Share ideas about science through purposeful conversation.
- S.IA.02.14**→ Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).
- S.RS.E.1**→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.
- S.RS.02.11**→ Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- P.PM.E.1**→ **Physical Properties-** All objects and substances have physical properties that can be measured.
- P.PM.02.12**→ Describe objects and substances according to their properties (color, size, shape, texture, hardness, liquid or solid, sinking or floating).
- L.OL.E.1**→ **Life Requirements-** Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.
- L.OL.02.14**→ Identify the needs of plants.
- L.HE.E.1**→ **Observable Characteristics-** Plants and animals share many, but not all, characteristics of their parents.
- L.HE.02.13**→ Identify characteristics of plants (for example: leaf shape, flower type, color, size) that are passed on from parents to young.
- E.FE.E.1**→ **Water-** Water is a natural resource and is found under the ground, on the surface of the Earth, and in the sky. It exists in three states (liquid, solid, gas) and can go back and forth from one form to another.
- E.FE.02.11**→ Identify water sources (wells, springs, lakes, rivers, oceans).
- E.FE.02.12**→ Identify household uses of water (drinking, cleaning, food preparation).
- E.FE.E.2**→ **Water Movement-** Water moves in predictable patterns.
- E.FE.02.21**→ Describe how rain collects on the surface of the Earth and flows downhill into bodies of water (streams, rivers, lakes, oceans) or into the ground.

English Language Arts

L.CN.02.02→ Students will ask appropriate questions for clarification and understanding during a presentation or report.

L.CN.02.03→ Students will listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings; listen to the comments of peers and respond on topic adding a connected idea.

Arts Education

ART.VA.III.2.2→ Recognize that art is created to fulfill personal and/or social needs.

ART.VA.IV.2.1→ Compare symbols, trademarks, icons, emblems, and other visual motifs in various cultures.

ART.VA.IV.2.2→ Discuss the subject matter of artwork from particular cultures at specific times.

ART.VA.V.2.1→ Describe how art is used in everyday life.

3rd Grade

Social Studies

3-H3.0.4→ Draw upon traditional stories of American Indians (e.g., Anishinabeg- Ojibway (Chippewa), Odawa (Ottawa), Potawatomi; Menominee; Huron Indians) who lived in Michigan to make generalizations about their beliefs.

3-H3.0.5→ Use informational text and visual data to compare how American Indians and Settlers in the early history of Michigan adapted to, used, and modified their environment.

3-G4.0.4→ Use data and current information about the Anishinaabeg and other American Indians living in Michigan today to describe the cultural aspects of modern American Indian life; give an example of how another cultural group in Michigan today has preserved and built upon its cultural heritage.

3-G5.0.2→ Describe how people adapt to, use, and modify the natural resources of Michigan.

Science

S.IP.E.1→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

- S.IP.03.11** → Make purposeful observation of the natural world using the appropriate senses.
- S.IP.03.12** → Generate questions based on observations.
- S.IA.E.1** → Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.
- S.IA.03.12** → Share ideas about science through purposeful conversation in collaborative groups.
- S.IA.03.13** → Communicate and present findings of observations and investigations.
- L.EV.E.1** → **Environmental Adaptation-** Different kinds of organisms have characteristics that help them to live in different environments.
- L.EV.03.11** → Relate characteristics and functions of observable parts in a variety of plants that allow them to live in their environment (leaf shape, thorns, odor, color). *
- L.OL.E.3** → **Structures and Functions-** Organisms have different structures that serve different functions in growth, survival, and reproduction.
- L.OL.03.31** → Describe the function of the following plant parts: flower, stem, root, and leaf.
- E.ES.E.4** → **Natural Resources-** The supply of many natural resources is limited. Humans have devised methods for extending their use of natural resources through recycling, reuse, and renewal.
- E.ES.03.41** → Identify natural resources (metals, fuels, fresh water, fertile soil, and forests). *
- E.ES.03.42** → Classify renewable (fresh water, fertile soil, forests) and non-renewable (fuels, metals) resources. *
- E.ES.03.43** → Describe ways humans are protecting, extending, and restoring resources (recycle, reuse, reduce, renewal).
- E.ES.E.5** → **Human Impact-** Humans depend on their natural and constructed environment. Humans change environments in ways that are helpful or harmful for themselves and other organisms.
- E.ES.03.51** → Describe ways humans are dependent on the natural environment (forests, water, clean air, Earth materials) and constructed environments (homes, neighborhoods, shopping malls, factories, and industry).
- E.ES.03.52** → Describe helpful or harmful effects of humans on the environment (garbage, habitat destruction, land management, renewable, and non-renewable resources).

English Language Arts

L.CN.03.01→ Students will ask substantive questions of the speaker that will provide additional elaboration and details.

L.CN.03.02→ Students will listen to or view knowledgeably while demonstrating appropriate social skills of audience behaviors (e.g. eye contact, attentive, supportive) in small and large group settings.

Arts Education

ART.VA.III.3.2→ Examine how art expresses cultural traditions.

ART.VA.IV.3.1→ Examine customs or traditions celebrated by different communities.

ART.VA.IV.3.2→ Describe the materials and art forms used by particular cultures.

ART.VA.IV.3.3→ Recognize how the available materials and processes available in a particular time or place can influence the art that is created.

ART.VA.V.3.1→ Describe how art can be found in various environments.

4th Grade

Social Studies

4-H3.0.8→ Describe past and current threats to Michigan's natural resources; describe how Michigan worked in the past and continues to work today to protect its natural resources.

4-G5.0.1→ Assess the positive and negative effects of human activities on the physical environment of the United States.

Science

S.IP.E.1→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

S.IP.04.11→ Make purposeful observation of the natural world using the appropriate senses.

S.IP.04.12→ Generate questions based on observations.

S.RS.E.1→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.

S.RS.04.18→ Describe the effect humans and other organisms have on the balance of the natural world.

- S.RS.04.19**→ Describe how people have contributed to science throughout history and across cultures.
- L.OL.E.1**→ **Life Requirements-** Organisms have basic needs. Animals and plants need air, water, and food. Plants also require light. Plants and animals use food as a source of energy and as a source of building material for growth and repair.
- L.OL.04.15**→ Determine that plants require air, water, light, and a source of energy and building material for growth and repair.
- L.EC.E.1**→ **Interactions-** Organisms interact in various ways including providing food and shelter to one another. Some interactions are helpful; others are harmful to the organism and other organisms.
- L.EC.04.11**→ Identify organisms as part of a food chain or food web.
- L.EC.E.2**→ **Changed Environment Effects-** When the environment changes, some plants and animals survive to reproduce; others die or move to new locations.
- L.EC.04.21**→ Explain how environmental changes can produce a change in the food web.

English Language Arts

- L.CN.04.01**→ Students will ask substantive questions of the speaker that will provide additional elaboration and details.
- L.CN.04.02**→ Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.

Arts Education

- ART.VA.III.4.2**→ Recognize that art may serve functional purposes, be purely decorative, or serve multiple purposes.
- ART.VA.III.4.5**→ Analyze how art can be a reflection of society and a response to real world experiences.
- ART.VA.IV.4.1**→ Describe how artwork communicates facts and/or experiences of various cultures.
- ART.VA.IV.4.2**→ Compare and contrast the visual elements contained in the artwork of particular cultures.
- ART.VA.IV.4.3**→ Evaluate the interrelationship between design, trends, events, and the economics of a culture.

5th Grade

Social Studies

- K1.3**→ Understand the diversity of human beings and human cultures.
- 5-U1.1.3**→ Describe Eastern Woodland American Indian life with respect to governmental and family structures, trade, and views on property ownership and land use.

Science

- S.IP.M.1**→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.
- S.IP.05.11**→ Generate scientific questions based on observations, investigations, and research.
- S.RS.M.1**→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.
- S.RS.05.17**→ Describe the effect humans and other organisms have on the balance in the natural world.
- P.FM.M.2**→ **Force Interactions-** Some forces between objects act when the objects are in direct contact (touching), such as friction and air resistance, or when they are not in direct contact (not touching), such as magnetic force, electrical force, and gravitational force.
- P.FM.05.21**→ Distinguish between contact forces and non-contact forces.

English Language Arts

- L.CN.05.01**→ Students will ask substantive questions based on the argument(s) presented by a speaker when listening to or viewing a variety of presentations.
- L.CN.05.02**→ Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive) in small and large group settings.

Arts Education

- ART.VA.III.5.2**→ Identify and defend various purposes for creating works of visual art.
- ART.VA.IV.5.2**→ Compare and contrast works of art as belonging to particular cultures, times, and places.

ART.VA.IV.5.3→ Demonstrate how history, culture, and the visual arts interrelate in making and studying works of art.

ART.VA.V.5.1→ Explain how visual arts have inherent relationships to everyday life.

ART.VA.V.5.4→ Synthesize connections between the visual arts and other disciplines in the curriculum.

6th Grade

Social Studies

K1.3→ Understand the diversity of human beings and human cultures.

6-H1.4.1→ Describe and use cultural institutions to study an era and a region (political, economic, religion/belief, science/technology, written language, education, family).

6-G2.2.1→ Describe the human characteristics of the region under study (including languages, religion, economic system, governmental system, cultural traditions).

6-G5.1.1→ Describe the environmental effects of human action on the atmosphere (air), biosphere (people, animals, and plants), lithosphere (soil), and hydrosphere (water) (e.g., changes in the tropical forest environments in Brazil, Peru, and Costa Rica).

6-G5.2.1→ Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change (e.g., drought in northern Mexico, disappearance of forest vegetation in the Amazon, natural hazards and disasters from volcanic eruptions in Central America and the Caribbean and earthquakes in Mexico City and Colombia).

Science

S.IP.M.1→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

S.IP.06.11→ Generate scientific questions based on observations, investigations, and research.

S.RS.M.1→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.

S.RS.06.17→ Describe the effect humans and other organisms have on the balance of the natural world.

- S.RS.06.19**→ Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.
- P.EN.M.1**→ **Kinetic and Potential Energy-** Objects and substances in motion have kinetic energy. Objects and substances may have potential energy due to their relative positions in a system. Gravitational, elastic, and chemical energy are all forms of potential energy.
- P.EN.06.11**→ Identify kinetic or potential energy in everyday situations (for example: stretched rubber band, objects in motion, ball on a hill, food energy).
- P.EN.M.4**→ **Energy Transfer-** Energy is transferred from a source to a receiver by radiation, conduction, and convection. When energy is transferred from one system to another, the quantity of energy before the transfer is equal to the quantity of energy after the transfer. *
- P.EN.06.41**→ Explain how different forms of energy can be transferred from one place to another by radiation, conduction, or convection.
- P.EN.06.42**→ Illustrate how energy can be transferred while no energy is lost or gained in the transfer.
- L.OL.M.5**→ **Producers, Consumers, and Decomposers –**
Producers are mainly green plants that obtain energy from the sun by the process of photosynthesis. All animals, including humans, are consumers that meet their energy needs by eating other organisms or their products. Consumers break down the structures of the organisms they eat to make the materials they need to grow and function. Decomposers, including bacteria and fungi, use dead organisms or their products to meet their energy needs. *
- L.OL.06.51**→ Classify producers, consumers, and decomposers based on their source of food (the source of energy and building materials). *
- L.EC.M.1**→ **Interactions of Organisms-** Organisms of one species form a population. Populations of different organisms interact and form communities. Living communities and nonliving factors that interact with them form ecosystems.
- L.EC.06.11**→ Identify and describe examples of populations, communities, and ecosystems including the Great Lakes region.
- L.EC.M.2**→ **Relationships of Organisms-** Two types of organisms may interact with one another in several ways: they may be in a producer/consumer, predator/ prey, or parasite/host relationship. Some

organisms may scavenge or decompose another. Relationships may be competitive or mutually beneficial. Some species have become so adapted to each other that neither could survive without the other.

L.EC.06.21 → Describe common patterns of relationships between and among populations (competition, parasitism, symbiosis, predator/prey).

L.EC.06.23 → Predict how changes in one population might affect other populations based upon their relationships in the food web.

L.EC.M.4 → **Environmental Impact of Organisms-** All organisms (including humans) cause change in the environment where they live. Some of the changes are harmful to the organism or other organisms, whereas others are helpful.

L.EC.06.41 → Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.

L.EC.06.42 → Predict possible consequences of overpopulation of organisms, including humans, (for example: species extinction, resource depletion, climate change, pollution).

English Language Arts

L.CN.06.01 → Students will respond to, evaluate, and analyze the speaker's effectiveness and content while listening to or viewing a variety of speeches and presentations.

L.CN.06.02 → Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g., eye contact, attentive, supportive); critically examine the verbal and non-verbal strategies during speeches and presentations.

Arts Education

ART.VA.III.6.1 → Observe, describe, and analyze visual characteristics at a developing level.

ART.VA.IV.6.1 → Recognize and describe how art contributes to and reflects all societies and cultures.

ART.VA.IV.6.2 → Develop an understanding of the historical, social, and cultural contexts of artwork with aesthetic sophistication.

ART.VA.V.6.3 → Compare the characteristics of work in two or more art forms that are dissimilar in subject matter, historical periods, or cultural context at a developing level.

ART.VA.V.6.5→ Describe ways in which the principles and subject matter of other disciplines taught in school are interrelated with the visual arts at a developing level.

7th Grade

Social Studies

K1.3→ Understand the diversity of human beings and human cultures.

Science

S.IP.M.1→ Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

S.IP.07.11→ Generate scientific questions based on observations, investigations, and research.

S.RS.M.1→ Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.

S.RS.07.17→ Describe the effect humans and other organisms have on the balance of the natural world.

S.RS.07.19→ Describe how science and technology have advanced because of the contributions of many people throughout history and across cultures.

P.EN.M. →4 Energy Transfer- Energy is transferred from a source to a receiver by radiation, conduction, and convection. When energy is transferred from one system to another, the quantity of energy before the transfer is equal to the quantity of energy after the transfer. *

P.EN.07.43→ Explain how light energy is transferred to chemical energy through the process of photosynthesis.

E.ES.M.4→ **Human Consequences-** Human activities have changed the land, oceans, and atmosphere of the Earth resulting in the reduction of the number and variety of wild plants and animals, sometimes causing extinction of species.

E.ES.07.41→ Explain how human activities (surface mining, deforestation, overpopulation, construction and urban development, farming, dams, landfills, and restoring natural areas) change the surface of the Earth and affect the survival of organisms.

- E.ES.07.42**→ Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere, (car exhaust, industrial emissions, acid rain, and natural sources), and how pollution impacts habitats, climatic change, threatens or endangers species.
- E.ES.M.8**→ **Water Cycle**- Water circulates through the four spheres of the Earth in what is known as the “water cycle.”
- E.ES.07.81**→ Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle.
- E.ES.07.82**→ Analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater.

English Language Arts

- L.CN.07.02**→ Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g. eye contact, attentive, supportive); critically examine the verbal and non-verbal strategies during speeches and presentations.

Arts Education

- ART.VA.III.7.1**→ Critically observe, describe, and analyze visual characteristics at an emerging level.
- ART.VA.III.7.4**→ Use critical thinking strategies to observe, compare, and contrast artworks at an emerging level.
- ART.VA.IV.7.1**→ Recognize, describe and analyze, and evaluate how art contributes to and reflects all societies and cultures at an emerging level.
- ART.VA.IV.7.2**→ Articulate an understanding of the historical, social, and cultural contexts of artwork with an emerging level of aesthetic sophistication.
- ART.VA.V.7.3**→ Analyze and compare the characteristics of work in two or more art forms that are dissimilar in subject matter, historical periods, or cultural context at an emerging level.
- ART.VA.V.7.5**→ Analyze and describe ways in which the principles and subject matter of other disciplines taught in school are interrelated with the visual arts at an emerging level.

8th Grade

Social Studies

K1.3→ Understand the diversity of human beings and human cultures.

Science

None

English Language Arts

L.CN.08.01→ Students will analyze main idea, significant details, fact and opinion, bias, propaganda, augmentation, or support when listening to or viewing a variety of speeches and presentations.

L.CN.08.02→ Students will listen to or view critically while demonstrating appropriate social skills of audience behaviors (e.g. eye contact, attentive, supportive); critically examine the verbal and non-verbal strategies during speeches and presentations.

Arts Education

ART.VA.III.8.1→ Critically observe, describe, and analyze visual characteristics within works of art.

ART.VA.III.8.4→ Effectively use critical thinking strategies to observe, compare, and contrast artworks.

ART.VA.IV.8.1→ Recognize, describe and analyze, and evaluate how art contributes to and reflects all societies and cultures.

ART.VA.IV.8.2→ Articulate an understanding of the historical, social, and cultural contexts of artwork with aesthetic sophistication.

ART.VA.V.8.3→ Effectively analyze and compare the characteristics of work in two or more art forms that are dissimilar in subject matter, historical periods, or cultural context.

ART.VA.V.8.5→ Effectively analyze and describe ways in which the principles and subject matter of other disciplines taught in school are interrelated with the visual arts.

High School

Social Studies

K1.5→ Understand the diversity of human beings and human cultures.

WHG 4.3.2→ **The Americas to 1500-** Describe the diverse characteristics of early American civilizations and societies in North, Central, and South America by comparing and contrasting the major aspects

(government, religion, interactions with the environment, economy and social life) of American Indian civilizations and societies such as the Maya, Aztec, Inca, Pueblo, and/or Eastern Woodland peoples.

WHG CG2→ Resources- Explain the changes over the last 50 years in the use, distribution, and importance of natural resources (including land, water, energy, food, renewable, non-renewable, and flow resources) on human life, settlement, and interactions by describing and evaluating

- change in spatial distribution and use of natural resources
- the differences in ways societies have been using and distributing natural resources
- social, political, economic, and environmental consequences of the development, distribution, and use of natural resources
- major changes in networks for the production, distribution, and consumption of natural resources including growth of multinational corporations, and governmental and non-governmental organizations (e.g., OPEC, NAFTA, EU, NATO, World Trade Organization, Red Cross, Red Crescent)
- the impact of humans on the global environment

Science

B3.4→ Changes in Ecosystems

Although the interrelationships and interdependence of organisms may generate biological communities in ecosystems that are stable for hundreds or thousands of years, ecosystems always change when climate changes or when one or more new species appear as a result of migration or local evolution. The impact of the human species has major consequences for other species.

B3.4A→ Describe ecosystem stability. Understand that if a disaster such as flood or fire occurs, the damaged ecosystem is likely to recover in stages of succession that eventually result in a system similar to the original one.

B3.4B→ Recognize and describe that a great diversity of species increases the chance that at least some living organisms will survive in the face of cataclysmic changes in the environment.

B3.4C→ Examine the negative impact of human activities.

B3.5→ Populations-Populations of living things increase and decrease in size as they interact with other populations and with the environment. The rate of change is dependent upon relative birth and death rates.

B3.5C Predict the consequences of an invading organism on the survival of other organisms.

E2.4→ Resources and Human Impacts on Earth Systems-The Earth provides resources (including minerals) that are used to sustain human affairs. The supply of nonrenewable natural resources is limited and their extraction and use can release elements and compounds into Earth systems. They affect air and water quality, ecosystems, landscapes, and may have effects on long-term climate. Plans for land use and long-term development must include an understanding of the interactions between Earth systems and human activities.

E2.4B→ Explain how the impact of human activities on the environment (e.g., deforestation, air pollution, coral reef destruction) can be understood through the analysis of interactions between the four Earth systems.

E2.4d→ Describe the life cycle of a product, including the resources, production, packaging, transportation, disposal, and pollution.

E4.p1→ Water Cycle (*prerequisite*)-Water circulates through the crust and atmosphere and in oceans, rivers, glaciers, and ice caps and connects all of the Earth systems. Groundwater is a significant reservoir and source of freshwater on Earth. The recharge and movement of groundwater depends on porosity, permeability, and the shape of the water table. The movement of groundwater occurs over a long period time. Groundwater and surface water are often interconnected.

(prerequisite)

E4.p1A→ Describe that the water cycle includes evaporation, transpiration, condensation, precipitation, infiltration, surface runoff, groundwater, and absorption. *(prerequisite)*

E4.p1B→ Analyze the flow of water between the elements of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater. *(prerequisite)*

E4.p1C→ Describe the river and stream types, features, and process including cycles of flooding, erosion, and deposition as they

occur naturally and as they are impacted by land use decisions.
(prerequisite)

E4.p1D → Explain the types, process, and beneficial functions of wetlands.

Standard P3: Forces and Motion-Students identify interactions between objects either as being by direct contact (e.g., pushes or pulls, friction) or at a distance (e.g., gravity, electromagnetism), and to use forces to describe interactions between objects. They recognize that non-zero net forces always cause changes in motion (Newton's first law). These changes can be changes in speed, direction, or both. Students use Newton's second law to summarize relationships among and solve problems involving net forces, masses, and changes in motion (using standard metric units). They explain that whenever one object exerts a force on another, a force equal in magnitude and opposite in direction is exerted back on it (Newton's third law).

P3.1 → **Basic Forces in Nature**-Objects can interact with each other by "direct contact" (e.g., pushes or pulls, friction) or at a distance (e.g., gravity, electromagnetism, nuclear).

P3.1A → Identify the force(s) acting between objects in "direct contact" or at a distance.

P4.3 → **Kinetic and Potential Energy**-Moving objects have kinetic energy. Objects experiencing a force may have potential energy due to their relative positions (e.g., lifting an object or stretching a spring, energy stored in chemical bonds). Conversions between kinetic and gravitational potential energy are common in moving objects. In frictionless systems, the decrease in gravitational potential energy is equal to the increase in kinetic energy or vice versa.

P4.3A → Identify the form of energy in given situations (e.g., moving objects, stretched springs, rocks on cliffs, energy in food).

English Language Arts

CE.2.1.10 → Listen to and view speeches, presentations, and multimedia works to identify and respond thoughtfully to key ideas, significant details, logical organization, fact and opinion, and propaganda.

CE.2.1.11 → Demonstrate appropriate social skills of audience, group discussion, or work team behavior by listening attentively and with civility to the ideas of others, gaining the floor in respectful ways,

posing appropriate questions, and tolerating ambiguity and lack of consensus.

CE.2.1.12→ Use a variety of strategies to enhance listening comprehension (e.g., monitor message for clarity and understanding, ask relevant questions, provide verbal and non-verbal feedback, notice cues such as change of pace or emphasis that indicate a new point is about to be made; and take notes to organize essential information).

CE.2.2.2→ Examine the ways in which prior knowledge and personal experience affect the understanding of written, spoken, or multimedia text.

Arts Education

ART.VA.IV.HS.1→ Observe and describe artwork with respect to history and culture.

ART.VA.IV.HS.2→ Describe the functions and explore the meaning of specific art objects within varied cultures, times, and places.

ART.VA.IV.HS.3→ Analyze the correlation between art, history, and culture throughout time.