



NATIONAL GEOGRAPHY & OKLAHOMA ACADEMIC STANDARDS

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS!**

"THE WORLD FACING THE HIGH SCHOOL GRADUATES OF 2025 WILL BE EVEN MORE CROWDED THAN THE WORLD OF TODAY. THE PHYSICAL ENVIRONMENT WILL BE EVEN MORE THREATENED. THE GLOBAL ECONOMY WILL BE EVEN MORE COMPETITIVE AND INTERCONNECTED.

UNDERSTANDING AND RESPONDING TO THE CHALLENGES AND OPPORTUNITIES OF THE WORLD IN THE TWENTY-FIRST CENTURY WILL REQUIRE MANY SKILLS; THE CAPACITIES TO THINK AND COMMUNICATE MATHEMATICALLY AND SCIENTIFICALLY WILL REMAIN AT A PREMIUM. GEOGRAPHIC LITERACY WILL ALSO BE NECESSARY FOR REASONS OF ENHANCING ECONOMIC COMPETITIVENESS, PRESERVING QUALITY OF LIFE, SUSTAINING THE ENVIRONMENT, AND ENSURING NATIONAL SECURITY. AS INDIVIDUALS AND AS MEMBERS OF SOCIETY, HUMANS FACE DECISIONS ON WHERE TO LIVE, WHAT TO BUILD WHERE, HOW AND WHERE TO TRAVEL, HOW TO CONSERVE ENERGY, HOW TO WISELY MANAGE SCARCE RESOURCES, AND HOW TO COOPERATE OR COMPETE WITH OTHERS.

MAKING ALL OF THESE DECISIONS, PERSONAL AND COLLECTIVE, REQUIRES A GEOGRAPHICALLY INFORMED PERSON—SOMEONE WHO SEES MEANING IN THE ARRANGEMENT OF THINGS ON EARTH'S SURFACE, WHO SEES RELATIONS BETWEEN PEOPLE, PLACES, AND ENVIRONMENTS, WHO USES GEOGRAPHIC SKILLS, AND WHO APPLIES SPATIAL AND ECOLOGICAL PERSPECTIVES TO LIFE SITUATIONS. GEOGRAPHIC SKILLS ENABLE A PERSON TO UNDERSTAND THE CONNECTIONS BETWEEN PATTERNS OF RIVERS AND THE PHYSICAL PROCESSES THAT CREATE THEM, BETWEEN PATTERNS OF CITIES AND THE HUMAN PROCESSES THAT CREATE THEM, AND BETWEEN WHAT HAPPENS IN THE PLACES IN WHICH WE LIVE AND WHAT HAPPENS IN PLACES THROUGHOUT THE WORLD, NEAR AND FAR.

THE GOAL OF THE NATIONAL GEOGRAPHY STANDARDS IS TO ENABLE STUDENTS TO BECOME GEOGRAPHICALLY INFORMED THROUGH KNOWLEDGE AND MASTERY OF THREE THINGS: (1) FACTUAL KNOWLEDGE; (2) MENTAL MAPS AND TOOLS; (3) AND WAYS OF THINKING."

National Geography Standards

Standard 1: How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Standard 2: How to use mental maps to organize information about people, places, and environments in a spatial context.

Standard 3: How to analyze the spatial organization of people, places, and environments on Earth's surface.

Standard 4: The physical and human characteristics of places.

Standard 5: That people create regions to interpret Earth's complexity.

Standard 6: How culture and experience influence people's perceptions of places and regions.

Standard 7: The physical processes that shape the patterns of Earth's surface.

Standard 8: The characteristics and spatial distribution of ecosystems on Earth's surface.

Standard 9: The characteristics, distribution, and migration of human populations on Earth's surface.

National Geography Standards

Standard 10: The characteristics, distribution, and complexity of Earth's cultural mosaics.

Standard 11: The patterns and networks of economic interdependence on Earth's surface.

Standard 12: The processes, patterns, and functions of human settlement.

Standard 13: How the forces of cooperation and conflict among people influence the division and control of Earth's surface.

Standard 14: How human actions modify the physical environment.

Standard 15: How physical systems affect human systems.

Standard 16: The changes that occur in the meaning, use, distribution, and importance of resources.

Standard 17: How to apply geography to interpret the past.

Standard 18: How to apply geography to interpret the present and plan for the future.



COMPUTER SCIENCE

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC
STANDARDS FOR COMPUTER SCIENCE!**

NGS 1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

K.DA.CVT.01: With guidance, collect data and present it visually.

K.AP.PD.01: With guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by-step) manner (e.g., story map, storyboard, and sequential graphic organizer)

1.DA.CVT.01 With guidance, collect data and present it two different ways.

1.AP.PD.01 Independently or with guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by-step) manner (e.g., story map, storyboard, and sequential graphic organizer).

2.DA.CVT.01 With guidance, collect and present the same data in various visual formats.

2.AP.PD.01 Independently or with guidance, create a grade-level appropriate artifact to illustrate thoughts, ideas, or stories in a sequential (step-by-step) manner (e.g., story map, storyboard, and sequential graphic organizer).

3.DA.IM.01 With guidance, utilize data to make predictions and discuss whether there is adequate data to make reliable predictions.

4.DA.IM.01 Utilize data to create models, answer investigative questions, and make predictions.

6.DA.S.01 Create multiple representations of the same data.

6.DA.CVT.01 Collect data using computational tools and transform the data to make it more useful.

8.DA.S.01 Analyze multiple methods of representing the same data and justify the most appropriate method for representing data.

NGS 6: HOW CULTURE AND EXPERIENCE INFLUENCE PEOPLE'S PERCEPTIONS OF PLACES AND REGIONS

3.IC.CU.01 Identify computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

4.IC.CU.01 Give examples of computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

5.IC.CU.01 Give examples and explain how computing technologies have changed the world, and express how computing technologies influence and are influenced by cultural practices within your community.

L1.IC.SI.01 Demonstrate and debate how computing increases and decreases connectivity and communication among people of various cultures.

11: THE PATTERNS AND NETWORKS OF ECONOMIC INTERDEPENDENCE ON EARTH'S SURFACE

7.IC.CU.01 Describe the trade-offs associated with computing technologies (e.g., automation), explaining their effects on economies and society.

8.IC.CU.01 Explore careers related to the field of computer science, and explain how computing impacts innovation in various career fields.

L1.IC.SI.01 Demonstrate and debate how computing increases and decreases connectivity and communication among people of various cultures.

16: THE CHANGES THAT OCCUR IN THE MEANING, USE, DISTRIBUTION, AND IMPORTANCE OF RESOURCES

3.IC.CU.01 Identify computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

4.IC.CU.01 Give examples of computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

5.IC.CU.01 Give examples and explain how computing technologies have changed the world, and express how computing technologies influence and are influenced by cultural practices within your community.

7.IC.CU.02 Identify real-world problems in relation to the distribution of computing resources in society.

8.IC.CU.01 Explore careers related to the field of computer science, and explain how computing impacts innovation in various career fields.

L1.IC.CU.01 Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.

L2.IC.CU.01 Evaluate the beneficial and harmful effects that computational artifacts and innovations have on society.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

L2.IC.CU.03 Design and implement a study that evaluates or predicts how computation has revolutionized an aspect of our culture and how it might evolve (e.g., education, healthcare, art/entertainment, energy).

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

5.IC.SI.02 As a team, collaborate with outside resources (other grade levels, online collaborative spaces) to include diverse perspectives to improve computational products.

7.IC.CU.02 Identify real-world problems in relation to the distribution of computing resources in society.

L2.IC.CU.03 Design and implement a study that evaluates or predicts how computation has revolutionized an aspect of our culture and how it might evolve (e.g., education, healthcare, art/entertainment, energy).



ENGLISH LANGUAGE ARTS

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR ENGLISH LANGUAGE ARTS!**

NGS 1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

PK.2.PC.1 Students will begin to understand that print carries a message by recognizing labels, signs, and other print in the environment.

PK.6.R Students will begin to identify pictures, charts, grade-level texts, or people as sources of information on a topic of interest.

K.3.R.2 Students will ask and answer basic questions (e.g., who, what, where, and when) about texts, photographs, or illustrations during shared reading or other text experiences with prompting.

K.6.R.2 Students will identify and use graphic and text features to understand texts.

1.6.R.2 Students will identify and use graphic and text features to understand texts.

1.6.W.2 Students will organize information found during group or individual research, using graphic organizers or other aids with prompting.

2.6.R.2 Students will identify and use graphic and text features to understand texts.

2.6.W.2 Students will organize information found during group or individual research, using graphic organizers or other aids

3.6.R.1 Students will conduct research to answer questions, including self-generated questions, and to build knowledge.

3.6.R.2 Students will identify and use text features (e.g., graphics, captions, subheadings, italics, charts, tables, legends) to comprehend informational texts.

4.3.R.5 Students will answer inferential questions using evidence from one or more texts to support answers.

NGS 1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

4.6.R.1 Students will conduct research to answer questions, including self-generated questions, and to build knowledge, using multiple sources (e.g., visual and text reference sources, electronic resources, and/or interviews).

5.6.R.2 Students will identify and use text features (e.g., graphics, captions, headings/subheadings, bold/italicized words, charts, tables, legends) to analyze the structure of informational texts.

5.7.R Students will analyze the characteristics and effectiveness of a variety of alphabetic, aural, visual, spatial, and/or gestural content from various perspectives.

6.7.R Students will compare and contrast the effectiveness of a variety of alphabetic, aural, visual, spatial, and/or gestural content from various perspectives.

6.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

7.7.R Students will compare and contrast the effectiveness of techniques used in a variety of alphabetic, aural, visual, spatial, and/or gestural content from various perspectives.

7.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

8.7.R Students will determine the intended purposes of techniques used for rhetorical effects in a variety of alphabetic, aural, visual, spatial, and/or gestural content from various perspectives.

NGS 1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

8.7.W Students will create engaging multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that intentionally addresses an audience and accomplishes a purpose.

9.7.R Students will analyze and evaluate the techniques used in a variety of multimodal content and how they contribute to meaning.

9.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

10.7.R Students will analyze and evaluate the techniques used in a variety of multimodal content and how they contribute to meaning.

10.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

11.7.R Students will analyze and evaluate the techniques used in a variety of multimodal content and how they contribute to meaning.

11.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.

12.7.R Students will analyze and evaluate the techniques used in a variety of multimodal content and how they contribute to meaning.

12.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

3.6.R.1 Students will conduct research to answer questions, including self-generated questions, and to build knowledge.

4.3.R.5 Students will answer inferential questions using evidence from one or more texts to support answers.

6.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

7.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

8.7.W Students will create engaging multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that intentionally addresses an audience and accomplishes a purpose.

9.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

10.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

11.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.

12.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

3.6.R.1 Students will conduct research to answer questions, including self-generated questions, and to build knowledge.

4.3.R.5 Students will answer inferential questions using evidence from one or more texts to support answers.

6.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

7.7.W Students will create multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that effectively communicates ideas for an intended audience.

8.7.W Students will create engaging multimodal content (i.e., alphabetic, aural, visual, gestural and/or spatial) that intentionally addresses an audience and accomplishes a purpose.

9.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

10.7.W Students will create engaging multimodal content that intentionally addresses an audience and accomplishes a purpose.

11.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.

12.7.W Students will create engaging multimodal content that intentionally enhances understanding of findings, reasoning, and evidence for diverse audiences.



MATHEMATICS

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR MATHEMATICS!**

1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

PK.GM.2 Describe and compare measurable attributes.

PK.D.1 Collect and organize categorical data.

K.GM.2 Compare and order objects according to location and measurable attributes.

K.D.1 Collect, organize, and interpret categorical data.

1.A.1 Identify patterns found in real-world and mathematical situations.

1.D.1 Collect, organize, and interpret categorical and numerical data.

2.A.1 Describe the relationship found in patterns to solve real-world and mathematical problems.

2.D.1 Collect, organize, and interpret data.

3.A.1 Describe and create representations of numerical and geometric patterns.

3.GM.2 Understand measurable attributes of real-world and mathematical objects using various tools.

4.A.1 Describe, create, and analyze multiple representations of patterns to solve real-world and mathematical problems.

4.GM.2 Recognize and measure attributes in real-world and mathematical situations using various tools.

5.A.1 Describe and graph patterns of change created through numerical patterns.

1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

6.A.1 Recognize and represent relationships between varying quantities; translate from one representation to another; use patterns, tables, graphs and rules to solve real-world and mathematical problems.

6.GM.3 Understand and use relationships between angles in geometric figures

7.A.2 Identify and justify proportional relationships using mathematical models and situations; solve problems involving proportional relationships and interpret results in the original context.

7.GM.4 Analyze the effect of dilations, translations, and reflections on the attributes of two-dimensional figures on and off the coordinate plane.

PA.D.1 Display and interpret data in a variety of ways, including using scatterplots and approximate lines of best fit. Use line of best fit and average rate of change to make predictions and draw conclusions about data.

A1.D.1 Display, describe, and compare data. For linear relationships, make predictions and assess the reliability of those predictions.

G.3D.1 Solve real-world and mathematical problems involving three-dimensional figures.

A2.A.1 Represent and solve mathematical and real-world problems using nonlinear equations and systems of linear equations; interpret the solutions in the original context.

3: HOW TO ANALYZE THE SPATIAL ORGANIZATION OF PEOPLE, PLACES, AND ENVIRONMENTS ON EARTH'S SURFACE

K.GM.2 Compare and order objects according to location and measurable attributes.

1.A.1 Identify patterns found in real-world and mathematical situations.

2.A.1 Describe the relationship found in patterns to solve real-world and mathematical problems.

4.A.1 Describe, create, and analyze multiple representations of patterns to solve real-world and mathematical problems.

5.A.1 Describe and graph patterns of change created through numerical patterns.

6.A.1 Recognize and represent relationships between varying quantities; translate from one representation to another; use patterns, tables, graphs and rules to solve real-world and mathematical problems.

6.GM.3 Understand and use relationships between angles in geometric figures.

7.A.2 Identify and justify proportional relationships using mathematical models and situations; solve problems involving proportional relationships and interpret results in the original context.

G.3D.1 Solve real-world and mathematical problems involving three-dimensional figures.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

5.A.2 Understand and interpret expressions, equations, and inequalities involving variables and whole numbers, and use them to represent and evaluate real-world and mathematical problems.

7.A.2 Identify and justify proportional relationships using mathematical models and situations; solve problems involving proportional relationships and interpret results in the original context.

PA.D.1 Display and interpret data in a variety of ways, including using scatterplots and approximate lines of best fit. Use line of best fit and average rate of change to make predictions and draw conclusions about data.

A1.D.1 Display, describe, and compare data. For linear relationships, make predictions and assess the reliability of those predictions.

A2.A.1 Represent and solve mathematical and real-world problems using nonlinear equations and systems of linear equations; interpret the solutions in the original context.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

5.A.2 Understand and interpret expressions, equations, and inequalities involving variables and whole numbers, and use them to represent and evaluate real-world and mathematical problems.

7.A.2 Identify and justify proportional relationships using mathematical models and situations; solve problems involving proportional relationships and interpret results in the original context.

PA.D.1 Display and interpret data in a variety of ways, including using scatterplots and approximate lines of best fit. Use line of best fit and average rate of change to make predictions and draw conclusions about data.

A1.D.1 Display, describe, and compare data. For linear relationships, make predictions and assess the reliability of those predictions.

A2.A.1 Represent and solve mathematical and real-world problems using nonlinear equations and systems of linear equations; interpret the solutions in the original context.



SCIENCE

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR SCIENCE!**

1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

4.ESS2.2 Analyze and interpret data from maps to describe patterns of Earth's features.

B.LS2.1 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacities of ecosystems at different scales.

4: THE PHYSICAL AND HUMAN CHARACTERISTICS OF PLACES

PK.S.4 Share noticings and wonderings about the physical and natural world.

PK.S.6 Engage in investigations based on curiosity and wondering about the physical and natural world.

7: THE PHYSICAL PROCESSES THAT SHAPE THE PATTERNS OF EARTH'S SURFACE

K.ESS.2.1 Use and share observations of local weather conditions to describe patterns over time.

2.ESS2.1 Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.

6.ESS2.2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

8.LS1.5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

CH.PS2.6 Communicate scientific and technical information about why the molecular level structure of designed materials determines how the material functions.

ES.ESS1.6 Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of changes in Earth's formation and early history.

8: THE CHARACTERISTICS AND SPATIAL DISTRIBUTION OF ECOSYSTEMS AND BIOMES ON EARTH'S SURFACE

1.LS1.1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

2.LS4.1 Make observations of plants and animals to compare the diversity of life in different habitats.

3.LS3.2 Use evidence to support the explanation that traits can be influenced by the environment.

7.LS2.1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

8.LS1.5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

B.LS2.1 Use mathematical and/or computational representations to support explanations of factors that affect carrying capacities of ecosystems at different scales.

9: THE CHARACTERISTICS, DISTRIBUTION, AND MIGRATION OF HUMAN POPULATIONS ON EARTH'S SURFACE

K.ESS2.2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

[EN/ES].ESS3.1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate affect human activity.

11: THE PATTERNS AND NETWORKS OF ECONOMIC INTERDEPENDENCE ON EARTH'S SURFACE

PS.PS4.2 Evaluate questions about the advantages and disadvantages of using a digital transmission and storage of information.

CH.PS2.6 Communicate scientific and technical information about why the molecular level structure of designed materials determines how the material functions.

12: THE PROCESSES, PATTERNS, AND FUNCTIONS OF HUMAN SETTLEMENT

3.LS4.4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

PH.PS3.3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

13: HOW THE FORCES OF COOPERATION AND CONFLICT AMONG PEOPLE INFLUENCE THE DIVISION AND CONTROL OF EARTH'S SURFACE

PH.PS3.3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

14: HOW HUMAN ACTIONS MODIFY THE PHYSICAL ENVIRONMENT

5.LS2.2 Use models to explain factors that upset the stability of local ecosystems.

5.ESS3.1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environments.

7.ESS3.3 Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.

[EN/ES].ESS3.1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate affect human activity.

15: HOW PHYSICAL SYSTEMS AFFECT HUMAN SYSTEMS

3.LS4.4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

4.ESS3.2 Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

5.LS2.2 Use models to explain factors that upset the stability of local ecosystems.

8.LS4.1 Analyze and interpret data to identify patterns within the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth.

PH.PS3.3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

16: THE CHANGES THAT OCCUR IN THE MEANING, USE, DISTRIBUTION, AND IMPORTANCE OF RESOURCES

7.LS2.1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

CH.PS2.6 Communicate scientific and technical information about why the molecular level structure of designed materials determines how the material functions.

PH.PS3.3 Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

[EN/ES].ESS3.1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate affect human activity.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

6.ESS2.2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

8.LS4.1 Analyze and interpret data to identify patterns within the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth.

ES.ESS1.6 Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of changes in Earth's formation and early history.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

6.ESS2.2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

6.ESS3.2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

7.ESS3.3 Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.

[EN/ES].ESS3.1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate affect human activity.



SOCIAL STUDIES

**NATIONAL
GEOGRAPHY
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STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR SOCIAL STUDIES!**

1: HOW TO USE MAPS AND OTHER GEOGRAPHIC REPRESENTATIONS, GEOSPATIAL TECHNOLOGIES, AND SPATIAL THINKING TO UNDERSTAND AND COMMUNICATE INFORMATION

PK.2/K.2 The student will demonstrate knowledge of basic physical and human geographic concepts.

1.2 The student will demonstrate knowledge of basic geographic concepts.

1.2.1 Describe the difference between physical and political maps; construct basic maps of specific places.

2.2.1 Construct basic maps using cardinal directions and map symbols.

2.2.2 Describe absolute and relative location using latitude, longitude, and hemispheres on basic maps and globes.

4.2.1 Use maps and other geographic representations (such as globes and graphs), tools, and technologies to acquire, process, and report information from a spatial perspective. **A.** Use and describe various elements of maps, including keys/legends, scale, cardinal, and intermediate directions. **B.** Interpret aerial photographs, satellite images and thematic maps to locate and identify physical and human features of the United States and North America. **C.** Use latitude and longitude to identify the location of physical and human features of the United States.

6.1/7.1 The student will analyze data from a geographic perspective using the skills and tools of geography.

WG.1 The student will use maps and other geographic representations, tools and technologies to acquire, research, process, and solve problems from a spatial perspective.

3: HOW TO ANALYZE THE SPATIAL ORGANIZATION OF PEOPLE, PLACES, AND ENVIRONMENTS ON EARTH'S SURFACE

4.2.2 Identify major physical features in the United States and analyze how physical processes shape places. **A.** Identify and describe the physical characteristics of places, including the major landforms, bodies of water, vegetation and climates in the United States. **B.** Describe the location and characteristics of major ecosystems in the United States.

4.2.3 Explain how people create regions using common geographic characteristics. **A.** Identify and describe the major physical, cultural, and economic regions of the United States, comparing one's own region to the other regions. **B.** Explain how and why regions change over time by comparing regions in the past with life in the same regions in the present.

6.1.4/7.1.4 Integrate visual information and develop the skill of mental mapping of the political and physical features of Earth's surface in order to organize information about people, places, and environments.

6.5.1 Define the concept of region and identify the major political, physical, cultural, and economic regions.

OKH.1.1 Integrate visual information to identify and describe the significant physical and human features including major trails, railway lines, waterways, cities, ecological regions, natural resources, highways, and landforms.

WG.1.2 Utilize geographic skills to understand and analyze the spatial organization of people, places, and environments on the Earth's surface.

WG.2 The student will analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.

4: THE PHYSICAL AND HUMAN CHARACTERISTICS OF PLACES

[PK.2/K.2] The student will demonstrate knowledge of basic physical and human geographic concepts.

1.2 The student will demonstrate knowledge of basic geographic concepts.

2.2 The student will describe the physical and human characteristics of their environment.

3.2 The student will examine Oklahoma's geography and how people of Oklahoma interact with their environment.

4.2 The student will examine the physical geography and environments of the United States.

4.3 The student will analyze the human characteristics of the United States and how geography impacts historic events.

6.4/7.4 The student will analyze the interactions of humans and their environment in the [Western/Eastern] Hemisphere.

6.5/7.5 The student will compare common physical and human characteristics of regions which create identity or uniqueness and influence people's perceptions of the [Western/Eastern] Hemisphere.

OKH.1.1 Integrate visual information to identify and describe the significant physical and human features including major trails, railway lines, waterways, cities, ecological regions, natural resources, highways, and landforms.

OKH.5 The student will examine Oklahoma's political, social, cultural, and economic transformation during the early decades following statehood.

WG.2 The student will analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.

5: THAT PEOPLE CREATE REGIONS TO INTERPRET EARTH'S COMPLEXITY

WG.2 The student will analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.

6: HOW CULTURE AND EXPERIENCE INFLUENCE PEOPLE'S PERCEPTIONS OF PLACES AND REGIONS

6.5/7.5 The student will compare common physical and human characteristics of regions which create identity or uniqueness and influence people's perceptions of the [Western/Eastern] Hemisphere.

PS.7 The student will understand how society and culture influence a person's behavior and mental processes.

S.2 The student will examine the influence of culture and the way cultural transmission is accomplished.

S.4 The student will examine how social groups are composed of people who share common characteristics including interests, beliefs, behaviors, and feelings.

7: THE PHYSICAL PROCESSES THAT SHAPE THE PATTERNS OF EARTH'S SURFACE

6.2/7.2 The student will analyze the physical systems of the major regions of the [Western/Eastern] Hemisphere.

8: THE CHARACTERISTICS AND SPATIAL DISTRIBUTION OF ECOSYSTEMS AND BIOMES ON EARTH'S SURFACE

4.2.2 Identify major physical features in the United States and analyze how physical processes shape places. **B.** Describe the location and characteristics of the major ecosystems in the United States.

6.2/7.2 The student will analyze the physical systems of the major regions of the [Western/Eastern] Hemisphere.

9: THE CHARACTERISTICS, DISTRIBUTION, AND MIGRATION OF HUMAN POPULATIONS ON EARTH'S SURFACE

[PK/K].3 The student will understand that history relates to events and people of other times and places.

5.1 The student will examine and compare the Jamestown and Plymouth settlements as the foundations of American culture and society.

5.2 The student will compare the developments of the New England Colonies, the Middle Colonies, and the Southern Colonies.

8.5 The student will analyze the political and geographic changes that occurred during the Jeffersonian Era.

8.8 The student will examine the political, economic, social, and geographic changes that occurred during the period of westward expansion.

OKH.1 The student will describe the state's geography and the historic foundations laid by American Indian, European, and American cultures.

USG.1 The student will compare the formation of contemporary governments in terms of access, use and justification of power.

S.2 The student will examine the influence of culture and the way cultural transmission is accomplished.

10: THE CHARACTERISTICS, DISTRIBUTION, AND COMPLEXITY OF EARTH'S CULTURAL MOSAICS

1.1 The student will analyze their role as a citizen in a community.

5.2 The student will compare the developments of the New England Colonies, the Middle Colonies, and the Southern Colonies.

PS.7 The student will understand how society and culture influence a person's behavior and mental processes.

S.4 The student will examine how social groups are composed of people who share common characteristics including interests, beliefs, behaviors, and feelings.

11: THE PATTERNS AND NETWORKS OF ECONOMIC INTERDEPENDENCE ON EARTH'S SURFACE

2.4 The student will understand basic economic concepts in the American economy.

3.4 The student will identify and describe basic economic activities creating prosperity in the state of Oklahoma.

E.2 The student will evaluate how societies answer the three basic economic questions: what goods and services to produce, how to produce them and for whom are they produced.

12: THE PROCESSES, PATTERNS, AND FUNCTIONS OF HUMAN SETTLEMENT

5.1 The student will examine and compare the Jamestown and Plymouth settlements as the foundations of American culture and society.

5.2 The student will compare the developments of the New England Colonies, the Middle Colonies, and the Southern Colonies.

8.5 The student will analyze the political and geographic changes that occurred during the Jeffersonian Era.

8.8 The student will examine the political, economic, social, and geographic changes that occurred during the period of westward expansion.

WH.2 The student will analyze patterns of social, economic, political, and cultural changes during the rise of Western civilization and the Global Age (1400-1750 CE).

13: HOW THE FORCES OF COOPERATION AND CONFLICT AMONG PEOPLE INFLUENCE THE DIVISION AND CONTROL OF EARTH'S SURFACE

1.1 The student will analyze their role as a citizen in a community.

8.5 The student will analyze the political and geographic changes that occurred during the Jeffersonian Era.

8.8 The student will examine the political, economic, social, and geographic changes that occurred during the period of westward expansion.

OKH.1 The student will describe the state's geography and the historic foundations laid by American Indian, European, and American cultures.

USG.1 The student will compare the formation of contemporary governments in terms of access, use and justification of power.

USG.5 The student will be able to evaluate the significance of civic participation in order to ensure the preservation of our constitutional government.

USH.3 The student will analyze the expanding role of the United States in international affairs as America was transformed into a world power in the late 19th and early 20th centuries, 1890 to 1920.

WH.2 The student will analyze patterns of social, economic, political, and cultural changes during the rise of Western civilization and the Global Age (1400-1750 CE).

14: HOW HUMAN ACTIONS MODIFY THE PHYSICAL ENVIRONMENT

3.2 The student will examine Oklahoma's geography and how people of Oklahoma interact with their environment.

4.4.1 Analyze how humans adapt to and modify their environments in order to survive and grow. **A.** Explain how humans depend upon the physical environment for food, shelter, and economic activities. **B.** Distinguish between renewable and nonrenewable resources. **C.** Explain how physical environments can provide both opportunities and limitations for human activity.

6.4/7.4 The student will analyze the interactions of humans and their environment in the [Western/Eastern] Hemisphere.

15: HOW PHYSICAL SYSTEMS AFFECT HUMAN SYSTEMS

3.2 The student will examine Oklahoma's geography and how people of Oklahoma interact with their environment.

4.4.1 Analyze how humans adapt to and modify their environments in order to survive and grow. **A.** Explain how humans depend upon the physical environment for food, shelter, and economic activities. **B.** Distinguish between renewable and nonrenewable resources. **C.** Explain how physical environments can provide both opportunities and limitations for human activity.

6.4/7.4 The student will analyze the interactions of humans and their environment in the [Western/Eastern] Hemisphere.

16: THE CHANGES THAT OCCUR IN THE MEANING, USE, DISTRIBUTION, AND IMPORTANCE OF RESOURCES

2.4 The student will understand basic economic concepts in the American economy.

3.4 The student will identify and describe basic economic activities creating prosperity in the state of Oklahoma.

E.2 The student will evaluate how societies answer the three basic economic questions: what goods and services to produce, how to produce them and for whom are they produced.

E.11 The student will identify the basic measures of a nation's economic output and income.

WG.2 The student will analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

[PK/K].3 The student will understand that history relates to events and people of other times and places.

4.3 The student will analyze the human characteristics of the United States and how geography impacts historic events.

5.1 The student will examine and compare the Jamestown and Plymouth settlements as the foundations of American culture and society.

OKH.1 The student will describe the state's geography and the historic foundations laid by American Indian, European, and American cultures.

OKH.5 The student will examine Oklahoma's political, social, cultural, and economic transformation during the early decades following statehood.

USG.1 The student will compare the formation of contemporary governments in terms of access, use and justification of power.

USH.3 The student will analyze the expanding role of the United States in international affairs as America was transformed into a world power in the late 19th and early 20th centuries, 1890 to 1920.

WH.2 The student will analyze patterns of social, economic, political, and cultural changes during the rise of Western civilization and the Global Age (1400-1750 CE).

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE.

USG.5 The student will be able to evaluate the significance of civic participation in order to ensure the preservation of our constitutional government.

USH.9 The student will examine contemporary challenges and successes in meeting the needs of the American citizen and society, 2002 to the present.

WG.2 The student will analyze how human population is organized geographically in order to understand the cultural, political, and economic systems of the world.

WH.6 The student will evaluate contemporary global issues and challenges.



FINE ARTS

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR FINE ARTS!**

10: THE CHARACTERISTICS, DISTRIBUTION, AND COMPLEXITY OF EARTH'S CULTURAL MOSAICS

D.RE.2: Construct meaningful interpretations of artistic work.

DT.RE.2: Interpret intent and meaning in artistic work.

VA.CP.3: Make creative choices and practice individual expression in application of concepts, language, techniques, and skills.

17: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PAST

D.CN.2: Relate artistic ideas and works with societal, cultural and historical contexts to deepen understanding.

DT.CN.2: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

M.CN.1: Recognize the development of music from a social, cultural, and historical context.

M.CN.2: Relate artistic ideas and works with societal, cultural, and historical context to deepen personal understanding.

VA.CHP.1: Relate artistic ideas and works with societal, cultural and historical context to deepen understanding.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE.

D.RE.2: Construct meaningful interpretations of artistic work.

D.CN.2: Relate artistic ideas and works with societal, cultural and historical contexts to deepen understanding.

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M.CN.1: Recognize the development of music from a social, cultural, and historical context.

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VA.CP.3: Make creative choices and practice individual expression in application of concepts, language, techniques, and skills.

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PERSONAL FINANCIAL LITERACY

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OKLAHOMA
ACADEMIC
STANDARDS**

***SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR PERSONAL FINANCIAL LITERACY!***

11: THE PATTERNS AND NETWORKS OF ECONOMIC INTERDEPENDENCE ON EARTH'S SURFACE

PFL.2 The student will identify and describe the impact of local, state, and federal taxes on income and standard of living.

PFL.7 The student will identify the procedures and analyze the responsibilities of borrowing money.

PFL.10 The student will explain and compare the responsibilities of renting versus buying a home.

PFL.11 The student will describe and explain how various types of insurance can be used to manage risk.

PFL.14 The student will explain the costs and benefits of charitable giving.

16: THE CHANGES THAT OCCUR IN THE MEANING, USE, DISTRIBUTION, AND IMPORTANCE OF RESOURCES

PFL.2 The student will identify and describe the impact of local, state, and federal taxes on income and standard of living.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

PFL.2 The student will identify and describe the impact of local, state, and federal taxes on income and standard of living.



WORLD LANGUAGES

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR WORLD LANGUAGES!**

4: THE PHYSICAL AND HUMAN CHARACTERISTICS OF PLACES

Connections 2. Acquiring Information and Diverse Perspectives

Learners access and evaluate information and diverse perspectives that are available through the language and its cultures.

Comparisons 1. Language Comparisons

Learners use the language to investigate, explain, and reflect on the nature of language through comparisons of the language studied and their own.

Comparisons 2. Cultural Comparisons

Learners use the language to explore, explain and reflect on the concept of culture through comparisons of the cultures studied and their own.

5: THAT PEOPLE CREATE REGIONS TO INTERPRET EARTH'S COMPLEXITY

Comparisons 1. Language Comparisons

Learners use the language to investigate, explain, and reflect on the nature of language through comparisons of the language studied and their own.

6: HOW CULTURE AND EXPERIENCE INFLUENCE PEOPLE'S PERCEPTIONS OF PLACES AND REGIONS

Communication 2. Interpersonal Communication

Learners interact and negotiate meaning in spoken, signed, or written conversations to share information, reactions, feelings, and opinions.

Communication 3. Presentational Communication

Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers, or viewers.

Culture 1. Relating Cultural Practices to Perspectives

Learners use the target language to investigate, explain, and reflect on the relationship between the practices and perspectives of the cultures studied.

Culture 2. Relating Cultural Products to Perspectives

Learners use the target language to investigate, explain, and reflect on the relationship between the products and perspectives of the cultures studied.

Connections 2. Acquiring Information and Diverse Perspectives

Learners access and evaluate information and diverse perspectives that are available through the language and its cultures.

Comparisons 1. Language Comparisons

Learners use the language to investigate, explain, and reflect on the nature of language through comparisons of the language studied and their own.

Comparisons 2. Cultural Comparisons

Learners use the language to explore, explain and reflect on the concept of culture through comparisons of the cultures studied and their own.

Communities 1. Schools and Global Communities

Learners use the language both within and beyond the classroom to interact and collaborate in their community and the globalized world.

10: THE CHARACTERISTICS, DISTRIBUTION, AND COMPLEXITY OF EARTH'S CULTURAL MOSAICS

Communication 3. Presentational Communication

Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers, or viewers.

Culture 1. Relating Cultural Practices to Perspectives

Learners use the target language to investigate, explain, and reflect on the relationship between the practices and perspectives of the cultures studied.

Culture 2. Relating Cultural Products to Perspectives

Learners use the target language to investigate, explain, and reflect on the relationship between the products and perspectives of the cultures studied.

Connections 1. Making Connections

Learners build, reinforce, and expand their knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively.

Communities 2. Lifelong Learning

Learners set goals and reflect on their progress in using languages for enjoyment, enrichment, and advancement.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

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Learners build, reinforce, and expand their knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively.

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HEALTH AND SAFETY

**NATIONAL
GEOGRAPHY
&
OKLAHOMA
ACADEMIC
STANDARDS**

**SEE HOW GEOGRAPHY IS RELEVANT TO
THE OKLAHOMA ACADEMIC STANDARDS
FOR HEALTH AND SAFETY!**

10: THE CHARACTERISTICS, DISTRIBUTION, AND COMPLEXITY OF EARTH'S CULTURAL MOSAICS

Standard 2: Analyzing influences allow students to learn about different environmental elements that affect their health. This standard focuses on identifying and understanding the diverse internal and external factors that influence health practices and behaviors among youth.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

Standard 2: Analyzing influences allow students to learn about different environmental elements that affect their health. This standard focuses on identifying and understanding the diverse internal and external factors that influence health practices and behaviors among youth.

Standard 4: Effective communication enhances personal, family, and community health. This standard focuses on how responsible individuals use verbal and nonverbal skills to develop and maintain healthy personal relationships. The ability to convey information and feelings is the basis for strengthening interpersonal interactions and reducing or avoiding conflict

Standard 8: Advocacy skills help students promote healthy behaviors. This standard helps students to advocate for their own health and the health of others.



PHYSICAL EDUCATION

**NATIONAL
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ACADEMIC
STANDARDS**

***SEE HOW GEOGRAPHY IS RELEVANT TO
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FOR PHYSICAL EDUCATION!***

10: THE CHARACTERISTICS, DISTRIBUTION, AND COMPLEXITY OF EARTH'S CULTURAL MOSAICS

Standard 3: This standard brings awareness to the importance of healthy bodies and ways to achieve and maintain good health. Standard 3 emphasizes knowledge of fitness, nutrition, and physical activity as well as developmentally appropriate assessment of health-related fitness.

Standard 4: This standard focuses on the skills of developing personal responsibility, working independently, respect for others in physical activity contexts, and working safely in physical activity settings. This standard addresses the affective domain.

Standard 5: This standard identifies the reasons and benefits for participation in physical activity beyond the requirements set by the teacher. Enjoyment, challenge, confidence, success, health, mental health, and positive social interaction are addressed in Standard 5.

18: HOW TO APPLY GEOGRAPHY TO INTERPRET THE PRESENT AND PLAN FOR THE FUTURE

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