



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).