



## **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.