



Math-Graphing

Grade: 3 – 9

Subject: Reading, Writing, Speaking, and Listening, Math, History

I PA Standards

- Grade 3
 - 1.1.3.A. Identify the purposes and types of text.
 - 1.1.3.B. Preview the text formats
 - 1.1.1.C. Use knowledge of phonics, word analysis, syllabication, picture and context clues to decode and understand new words during reading.
 - 1.1.1.D. Read text using self-monitoring comprehension strategies
 - 1.1.1.E. Acquire a reading vocabulary by identifying and correctly using words.
 - 1.1.1.F. Understand the meaning of and use correctly new vocabulary learned in various subject areas.
 - 1.1.1.G. Demonstrate after reading understanding and interpretation of both fiction and nonfiction text.
 - 1.2.3.A. Read and understand essential content of informational texts and documents in all academic areas.
 - 1.2.3.B. Use and understand a variety of media and evaluate the quality of material produced.
 - 1.6.3.C. Speak using skills appropriate to formal speech situations.
 - 1.6.3.D. Contribute to discussions.
 - 1.6.3.E. Participate in small and large group discussions and presentation.
 - 1.8.3.A. Select a topic for research.
 - 1.8.3.B. Locate information using appropriate sources and strategies.
 - 1.8.3.C. Organize and present the main ideas from research.
 - 2.6.3.A. Gather, organize and display data using pictures, tallies, charts, bar graphs, and pictographs.
 - 2.6.3.B. Formulate and answer questions based on data shown on graphs.
 - 2.6.3.C. Predict the likely number of times a condition will occur based on analyzed data.
 - 2.6.3.D. Form and justify an opinion on whether a given statement is reasonable based on a comparison to data.
 - 8.1.3.A. Understand chronological thinking and distinguish between past, present and future time.
 - 8.1.3.B. Develop an understanding of historical sources.
 - 8.1.3.C. Understand fundamentals of historical interpretation.
 - 8.1.3.D. Understand historical research.
 - 8.2.3.A. Understand the political and cultural contributions of individuals and groups to Pennsylvania history.
 - 8.2.3.B. Identify and describe primary documents, material artifacts and historic sites important in Pennsylvania history.
 - 8.2.3.C. Identify and explain how continuity and change have influenced Pennsylvania history.
 - 8.2.3.D. Identify and describe conflict and cooperation among social groups and organizations in Pennsylvania history.
 - 8.3.3.A. Identify contributions of individuals and groups to United States history.
 - 8.3.3.B. Identify and describe primary documents, material artifacts and historic sites important in United States history.
 - 8.3.3.C. Identify important changes in United States history
 - 8.3.3.D. Identify conflict and cooperation among social groups and organizations in United States history.



- Grade 5 and 6
 - 1.1.5.A. Establish the purpose for reading a type of text (literature, information) before reading.
 - 1.1.5.B. Select texts for a particular purpose using the format of the text as a guide.
 - 1.1.5.C. Use knowledge of phonics, syllabication, prefixes, suffixes, the dictionary of context clues to decode and understand new words during reading. Use these words accurately in writing and speaking.
 - 1.1.5.D. Identify the basic ideas and facts in text using strategies and information from other sources to make predictions about text.
 - 1.1.5.E. Acquire a reading vocabulary by correctly identifying and using words. Use a dictionary or related reference.
 - 1.1.5.F. Identify, understand the meaning of and use correctly key vocabulary from various subject areas.
 - 1.1.5.G. Demonstrate after reading understanding and interpretation of both fiction and nonfiction text.
 - 1.2.5.A. Read and understand essential content of informational texts and documents in all academic areas.
 - 1.2.5.B. Use and understand a variety of media and evaluate the quality of material produced.
 - 1.6.5.C. Speak using skills appropriate to formal speech situations.
 - 1.6.5.D. Contribute to discussions
 - 1.6.5.E. Participate in small and large group discussions and presentations.
 - 1.8.5.A. Select and refine a topic for research.
 - 1.8.5.B. Locate information using appropriate sources and strategies.
 - 1.8.5.C. Organize and present the main ideas from research.
 - 2.6.5.A. Organize and display data using pictures, tallies, tables, charts, bar graphs and circle graphs.
 - 2.6.5.B. Describe data sets using mean, median, mode and range.
 - 2.6.5.C. Sort data using Venn diagrams.
 - 2.6.5.D. Predict the likely number of times a condition will occur based on analyzed data.
 - 2.6.5.E. Construct and defend simple conclusions based on data.
 - 8.1.6.A. Understand chronological thinking and distinguish between past, present and future time.
 - 8.1.6.B. Explain and analyze historical sources.
 - 8.1.6.C. Explain the fundamentals of historical interpretation.
 - 8.1.6.D. Describe and explain historical research.
 - 8.2.6.A. Identify and explain the political and cultural contributions of individuals and groups to Pennsylvania history from Beginnings to 1824.
 - 8.2.6.B. Identify and describe primary documents, material artifacts and historic sites important in Pennsylvania history from Beginnings to 1824.
 - 8.2.6.C. Identify and explain how continuity and change have influenced Pennsylvania history from Beginnings to 1824.
 - 8.2.6.D. Identify and explain conflict and cooperation among social groups and organizations in Pennsylvania history from Beginnings to 1824.
 - 8.3.6.A. Identify and explain the political and cultural contributions of individuals and groups to United States history from Beginnings to 1824.
 - 8.3.6.B. Identify and explain primary documents, material artifacts and historic sites important in United States history from Beginnings to 1824.
 - 8.3.6.C. Explain how continuity and change has influenced United States history from Beginnings to 1824.
 - 8.3.6.D. Identify and explain conflict and cooperation among social groups and organizations in United States history from Beginnings to 1824.



- Grade 8 and 9
 - 1.1.8.A. Locate appropriate texts (literature, information, documents) for an assigned purpose before reading.
 - 1.1.8.B. Identify and use common organizational structures and graphic features to comprehend information.
 - 1.1.8.C. Use knowledge of root words as well as context clues and glossaries to understand specialized vocabulary in the content areas during reading. Use these words accurately in speaking and writing.
 - 1.1.8.D. Identify basic facts and ideas in text using specific strategies.
 - 1.1.8.E. Expand a reading vocabulary by identifying and correctly using idioms and words with literal and figurative meanings. Use a dictionary or related reference.
 - 1.1.8.F. Understand the meaning of and apply key vocabulary across the various subject areas.
 - 1.1.8.G. Demonstrate after reading understanding and interpretation of both fiction and nonfiction text, including public documents.
 - 1.2.8.A. Read and understand essential content of informational texts and documents in all academic areas.
 - 1.2.8.B. Use and understand a variety of media and evaluate the quality of material produced.
 - 1.6.8.C. Speak using skills appropriate to formal speech situations.
 - 1.6.8.D. Contribute to discussions.
 - 1.6.8.E. Participate in small and large group discussions and presentations.
 - 1.8.8.A. Select and refine a topic for research.
 - 1.8.8.B. Locate information using appropriate sources and strategies.
 - 1.8.8.C. Organize and present the main ideas from research.
 - 2.6.8.A. Compare and contrast different plots of data using values of mean, median, mode, quartiles and range.
 - 2.6.8.B. Explain effects of sampling procedures and missing and incorrect information on reliability.
 - 2.6.8.C. Fit a line to the scatter plot of two quantities and describe any correlation of the variables.
 - 2.6.8.D. Design and carry out a random sampling procedure.
 - 2.6.8.E. Analyze and display data in stem-and-leaf and box-and-whisker plots.
 - 2.6.8.F. Use scientific and graphing calculators and computer spreadsheets to organize and analyze data.
 - 8.1.9.A. Analyze chronological thinking.
 - 8.1.9.B. Analyze and interpret historical sources.
 - 8.1.9.C. Analyze the fundamentals of historical interpretation.
 - 8.1.9.D. Analyze and interpret historical research.
 - 8.2.6.A. Identify and explain the political and cultural contributions of individuals and groups to Pennsylvania history from Beginnings to 1824.
 - 8.2.9.A. Analyze the political and cultural contributions of individuals and groups to Pennsylvania history from 1787 to 1914..
 - 8.2.9.B. Identify and analyze primary documents, material artifacts and historic sites important in Pennsylvania history from 1787 to 1914.
 - 8.2.9.C. Identify and explain how continuity and change have influenced Pennsylvania history from 1787 to 1914.
 - 8.2.9.D. Identify and analyze conflict and cooperation among social groups and organizations in Pennsylvania history from 1787 to 1914.
 - 8.3.9.A. Identify and analyze the political and cultural contributions of individuals and groups to United States history from 1787 to 1914.



8.3.9.B. Identify and analyze primary documents, material artifacts and historic sites important in United States history from 1787 to 1914.

8.3.9.C. Analyze how continuity and change has influenced United States history from 1787 to 1914.

8.3.9.D. Identify and analyze conflict and cooperation among social groups and organizations in United States history from 1787 to 1914.