

K.DA.1 Data and Analysis



The student will gather and record data with or without a computing device. (a) Discuss the importance of data. (b) Identify numeric and non-numeric data. (c) Record data and communicate possible patterns. (b) Describe how computing devices are used in communication.

Integration Opportunities

Understanding the Standard

Data helps us understand the world around us. By engaging in data cycles (pose questions, collect or acquire data, organize and represent data, and analyze data and communicate results), we can answer questions, identify patterns, and make informed decisions. In Kindergarten, students will use their senses to collect data and record it with or without a computing device. They will identify different data types, such as numbers (numeric data) and words or pictures (non-numeric data). Organizing and representing collected data in charts and graphs may help students notice patterns in the data, which they can communicate to others through words and pictures.

Science K.1b,c,d Students plan and carry out investigations, interpret, analyze and evaluate data, and construct and critique conclusions and explanations. Specific data may include daily weather data including observations and measurements.

History K.4c Use graphs and data to show change over time regarding use of computing devices.

Math K.PS.1 Collect data from classmates about their favorite lunches, represent it with a picture graph, and analyze patterns (e.g., which lunch is most/least popular) while discussing how gathering such data helps in decision-making.

Physical Education K.3.c With or without a computing device, observe, record, and compare students' heartbeats while stationary and after physical activity.

Term	Definition
Data	Individual facts and information.
Table	Information (such as numbers and descriptions) arranged in rows and columns.
Numeric data	Data that is expressed in numbers, usually collected by counting or measuring.
Non-numeric data	Data that is expressed in words or pictures.

Prerequisite Knowledge

Students should have basic counting skills from 1 to 10 or beyond, observation skills (i.e., using their senses), and experience using simple charts/graphs. Other helpful skills include asking and answering questions and noticing similarities and differences.

Summary of a Lesson

Many classes complete "getting to know you" activities such as counting how many students have birthdays in each month. Introduce the word *data* as information and facts that you can collect. Explain that the class will collect information on when students' birthdays occur. For each month of the year, count how many students have birthdays in that month. Note that since you are counting the number of students and recording the number, this data is called *numeric data*. You may choose to represent this as a list or in graph form. To introduce collecting *non-numeric data*, have the class respond to the prompt "How Do You Feel Today?" You might represent this data through emojis or with names of emotions. Have students practice collecting numeric and non-numeric data from classmates or families.