

Analyzing and Interpreting Data

Elements of Student Performance

Middle School



[Science & Engineering Practice 4](#)

Organize Data

Organize data (e.g. using tables, graphs and charts) to allow for analysis and interpretation.
Describe what each dataset represents.

Identify Relationships

Analyze quantitative patterns in the datasets.
Distinguish between causal and correlational relationships in data.
Analyze data to identify linear and nonlinear relationships.
Analyze and characterize data using concepts of statistics and probability (including mean, median, mode, and variability) with digital tools when feasible.
Consider limitations of data analysis (e.g. measurement error) and/or seek to improve precision and accuracy of data with better technological tools and methods (e.g. multiple trials).

Interpreting Data

Use analyzed data as evidence to describe the disciplinary core idea.
Describe relationships or make predictions using the relevant crosscutting concept.

[MS-PS1-2](#) / [MS-PS3-1](#) / [MS-LS2-1](#) / [MS-LS4-1](#) / [MS-LS4-3](#) / [MS-ESS1-3](#) / [MS-ESS2-3](#) / [MS-ESS3-2](#)