

Grade 8

Communication and Collaboration **CC**

- 1 Collect and document evidence to share information with others in multiple media forms. 8.CC.1**
 - a Collect three pieces of evidence to share information with others in multiple media forms. 8.CC.1A

- 2 Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions. 8.CC.2**
 - a Communicate the solution to a problem by explaining steps in a process, a key finding, or a conclusion. 8.CC.2A

- 3 Identify, implement, and assign roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. 8.CC.3**
 - a Identify and implement the responsibilities for a role while working in various group settings (i.e., online, onsite and/or hybrid). 8.CC.3A

- 4 Communicate specific constraints and criteria established for an investigation. 8.CC.4**
 - a Communicate a constraint (e.g., "We can only use the tape and string provided.") and a criteria (e.g., "Our crane has to lift 5 paperclips.") for an investigation. 8.CC.4A

- 5 Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence. 8.CC.5**
 - a Identify the argument that is supported by the most evidence from the investigation. 8.CC.5A

Data Analysis and Measurement **DM**

- 1 Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in grade level content standards to analyze real-world scenarios and the mathematical relationships represented by the data. 8.DM.1**
 - a Use two or more provided sources of data (e.g., measurement, data sets, plots, tables, graphs, charts), defined in grade level content standards, to describe real-world scenarios or the mathematical relationships represented by the data. 8.DM.1A

2 Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards. 8.DM.2

- a Determine patterns in visual representations defined in grade level content standards (e.g., bar graphs, charts). 8.DM.2A
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3 Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes. 8.DM.3

- a Use approximations to categorize observations, results, or solutions throughout processes as reasonable or unreasonable, and justify your selection. 8.DM.3A
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4 Choose data sets and analysis methods to support the inquiry process. 8.DM.4

- a Use data sets and analysis methods to support the inquiry process. 8.DM.4A
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Inquiry-Based Approaches and Problem Solving IPS

1 Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design. 8.IPS.1

- a Conduct or extend an investigation, analyze (e.g., finding relationships between data) the results and suggest one way the design of the investigation could be improved upon, iterate and revise to improve the design. 8.IPS.1A
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2 Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. 8.IPS.2

- a Given both a specific set of criteria and constraints, find one or more viable solutions to solve a problem. 8.IPS.2A
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3 Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution. 8.IPS.3

- a Use evidence and/or processes from more than one academic discipline to generate a solution to a proposed problem. 8.IPS.3A
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Applications and Modeling AM

1 Interpret and evaluate relationships among sets of data (e.g., distance-time graph). 8.AM.1

- a Interpret relationships among sets of data (e.g., distance-time graph). 8.AM.1A
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2 Use coordinate planes or number lines to examine information and represent solutions. 8.AM.2

- a Select data from a number line, dot/line plot, or coordinate plane to find and/or represent a solution to a given problem. 8.AM.2A
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3 Use models to compare and contrast different systems and explain the factors that influence them. 8.AM.3

- a Use models to compare or contrast different systems and explain the factors that influence them. 8.AM.3A

4 Use and revise models to describe, test, and predict phenomena or solutions. 8.AM.4

- a Use models, or revise them as necessary, to describe, test, or predict phenomena or solutions. 8.AM.4A
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Information and Digital Literacy IDL

1 Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. 8.IDL.1

- a Identify or evaluate the impact of technology when selecting tools to solve a problem or to determine an effective solution. 8.IDL.1A
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2 Review and compile information from multiple sources to solve a problem. 8.IDL.2

- a Review and compile information from multiple sources to solve a problem. 8.IDL.2A
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3 Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. 8.IDL.3

- a Describe one or more solutions or technologies that have been adapted to meet the needs or wants for individuals or communities. 8.IDL.3A