

Grade 4

Communication and Collaboration **CC**

1 Collect and document evidence to share information with others in charts, tables, presentations or text. 4.CC.1

a Share evidence in the form of charts, tables, presentations or text. 4.CC.1A

2 Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings or conclusions. 4.CC.2

a Communicate the solution to a problem by identifying steps in a process or a key finding. 4.CC.2A

3 Identify and implement roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. 4.CC.3

a Carry out the responsibilities for a role while working in a group setting. 4.CC.3A

4 Communicate specific constraints and criteria established for an investigation. 4.CC.4

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

5 Critique or support methods, investigations or arguments using evidence-based reasoning. 4.CC.5

a Use evidence-based reasoning to determine which methods are best suited for the intended outcome. 4.CC.5A

Data Analysis and Measurement **DM**

1 Determine appropriate measurement tools to perform measurements, calculations, and conversions (e.g., fractions, decimals, pounds, perimeter, area, kilograms to grams) defined in grade level content standards to analyze real-world scenarios. 4.DM.1

a Use appropriate measurement tools to record measurements (e.g., fractions, decimals, pounds, perimeter, area, kilograms to grams) defined in grade level content standards in real-world scenarios. 4.DM.1A

2 Construct visual representations defined in grade level content standards (e.g., bar graphs, charts, line plots, frequency tables) to determine patterns, using digital tools when possible and feasible. 4.DM.2

a Determine patterns in visual representations defined in grade level content standards (e.g., bar graphs, charts), using digital tools when possible and feasible. 4.DM.2A

3 Evaluate reasonableness of observations, results, and solutions throughout processes. 4.DM.3

- a Categorize observations, results, or solutions throughout processes as reasonable or unreasonable. 4.DM.3A

4 Choose data sets and analysis methods to support the inquiry process. 4.DM.4

- a Describe how data sets support the inquiry process. 4.DM.4A

Inquiry-Based Approaches and Problem Solving IPS

1 Plan and conduct an investigation to answer a specific question or solve a specific problem. 4.IPS.1

- a Identify a question to answer or problem to solve; plan and conduct an investigation to answer the question or solve the problem. 4.IPS.1A

2 Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second). 4.IPS.2

- a Decompose a problem and identify the order of steps from the beginning to the end. 4.IPS.2A

3 Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. 4.IPS.3

- a Find one or more viable solutions using data or information to resolve a given scenario working within specific criteria and constraints. 4.IPS.3A

Applications and Modeling AM

1 Apply symbols and relationships (e.g., place value, equations, operations) to represent physical or conceptual objects (e.g., letters, numbers, or displays of color may represent objects). 4.AM.1

- a Identify symbols and relationships (e.g., operations or equations) that represent physical or simple conceptual objects (e.g., letters, numbers, or displays of color may represent objects). 4.AM.1A

2 Create a model showing a subsystem as part of a larger system. 4.AM.2

- a Identify a subsystem of a larger system using a simple model (e.g., the roots of a tree, wheels on a bike, students in a classroom). 4.AM.2A

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. 4.IDL.1

- a Identify the effects of technology when choosing tools for problem-solving and finding the best solution. 4.IDL.1A

2 Review and compile information from multiple sources to solve a problem. 4.IDL.2

- a Gather and use information from different sources to solve problems. 4.IDL.2A

3 Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. 4.IDL.3

- a Explain how changing technology can better serve the needs and wants of people or communities. 4.IDL.3A