



Second Grade Standards Connections for Labs

		Physics of Roller Coasters	Chemicals of Innovation	Down the Drain	Engineering for Earthquakes	Simplicity of Electricity	Chemistry of Plastination	DNA and Genetics
Next Generation Science Standards								
Engineering Design								
K-2-ETS1-1x	Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.	✓	N/A	N/A	N/A	N/A	N/A	N/A
K-2-ETS1-2	Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.	✓	N/A	N/A	N/A	N/A	N/A	N/A
K-2-ETS1-3	Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	✓	N/A	N/A	N/A	N/A	N/A	N/A
Science and Engineering Practices								
Practice 1	Asking questions and defining problems	✓	N/A	N/A	N/A	N/A	N/A	N/A
Practice 2	Developing and using models	✓	N/A	N/A	N/A	N/A	N/A	N/A
Practice 3	Planning and carrying out investigations	✓	N/A	N/A	N/A	N/A	N/A	N/A
Practice 6	Constructing explanations and designing solutions	✓	N/A	N/A	N/A	N/A	N/A	N/A
Disciplinary Core Ideas								
PS2.A	<i>Forces and Motion</i> • Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it.	✓	N/A	N/A	N/A	N/A	N/A	N/A
PS3.C	<i>Relationship Between Energy and Forces</i> • A bigger push or pull makes things go faster.	✓	N/A	N/A	N/A	N/A	N/A	N/A
ETS1.A	<i>Defining and Delimiting an Engineering Problem</i> • A situation the people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. • Before beginning to design a solution, it is important to clearly understand the problem.	✓	N/A	N/A	N/A	N/A	N/A	N/A
ETS1.B	<i>Developing Possible Solutions</i> • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to the other people.	✓	N/A	N/A	N/A	N/A	N/A	N/A
ETS1.C	<i>Optimizing the Design Solution</i> • Because there is always more than one possible solution to a problem, it is useful to compare and test designs.	✓	N/A	N/A	N/A	N/A	N/A	N/A
Crosscutting Concepts								
Cause and Effect	Simple tests can be designed to gather evidence to support or refute student ideas about causes.	✓	N/A	N/A	N/A	N/A	N/A	N/A
Structure and Function	The shape and stability of structures of natural and designed objects are related to their function(s).	✓	N/A	N/A	N/A	N/A	N/A	N/A

Common Core Language Arts

Speaking and Listening

SL.2.1	Participate in collaborative conversations with diverse partners about Grade 2 topics and texts with peers and adults in small and larger groups.	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.1a	Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways listening to others with care, speaking one at a time about the topics and texts under discussion).	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.1b	Build on others' talk in conversations by linking their comments to the remarks of others.	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.1c	Ask for clarification and further explanation as needed about the topics and texts under discussion.	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.2	Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.2a	Give and follow three- and four-step oral directions.	✓	N/A	N/A	N/A	N/A	N/A	N/A
SL.2.3	Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.	✓	N/A	N/A	N/A	N/A	N/A	N/A

Common Core Math

Measurement and Data

2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	✓	N/A	N/A	N/A	N/A	N/A	N/A
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