

Common Core State Standards Correlated to Systems Thinking Tools

Grade 2 Reading Informational Text	Using Systems Thinking Tools to Explicitly Teach the CCSS
<p>Key Ideas and Details...</p> <ol style="list-style-type: none"> 1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text. 2. Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text. 3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. 	<p>Creation of the <i>x</i>-axis for <i>Behavior-over-time Graphs (BOTGs)</i> requires the reader to visually represent a time frame within which to depict a series of events or sequential steps described in a piece of informational text. Determining what to graph or what to place on the <i>y</i>-axis requires identification of the main ideas. Once the graph is complete, the reader is ready to “tell the story of the line.” The graph then becomes a reference for answering questions to demonstrate understanding of key details and elaborating on critical connections between variables over time implied or explicitly stated within a text. Organizing information explicitly over time also reinforces analytic skills that carry over to math and science work.</p>
<p>Craft and Structure...</p> <ol style="list-style-type: none"> 4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. 5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. 6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe. 	<ul style="list-style-type: none"> • <i>BOTGs</i> are also useful tools for building vocabulary and in so doing assisting students in determining the meaning of words in a text. By students anchoring words and phrases in a pattern of change over time that they understand, teachers can then ask them to elaborate on what that pattern means using additional terms to focus on certain words in a text. For example fear going from low to high could be: calm, worried, scared, terrified. The teacher may also choose to require students to focus on certain words in a text when creating a <i>BOTG</i> in order to incorporate that word into their graph and thereby build deep understanding of vocabulary. • Applying any of the basic systems tools (<i>BOTGs, Ladder of Inference, Stock and Flow Diagrams, Connection Circles or Feedback Loops</i>) requires students to create a visual depiction of the text under consideration. In so doing, the reader is readily able to identify purpose and examine the text for author’s intent and central message.
<p>Integration of Knowledge and Ideas...</p> <ol style="list-style-type: none"> 7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. 8. Describe how reasons support specific points the author makes in a text. 9. Compare and contrast the most important points presented by two texts on the same topic. 	<p>Integration of knowledge and ideas when reading expository text requires students to access and connect their background knowledge about the topic at hand. Through visual expression of one’s understanding, systems thinking tools help students make explicit connections between curricular concepts and relevant life experiences; thus providing a means for students to integrate knowledge and ideas, while comparing and contrasting key points and analyzing text-specific evidence to validate or refute an author’s argument.</p> <p>Further, for long-term development of the skills required by this standard, the systems thinking tools help students to integrate information read into their schema or body of general knowledge for the next time a reading task requires background in a particular topic or subject and for comparison among topics.</p>

Recommended Informational Text for grades 2 and 3, CCSS, Appendix B

Aliki. A Medieval Feast

Beeler, Selby. Throw Your Tooth on the Roof: Tooth Traditions Around the World

Davies, Nicola. Bat Loves the Night

Einspruch, Andrew. Crittercam

Floca, Brian. Moonshot: The Flight of Apollo 11

Gibbons, Gail. From Seed to Plant

Kudlinski, Kathleen V. Boy, Were We Wrong About Dinosaurs

Leonard, Heather. Art Around the World

Milton, Joyce. Bats: Creatures of the Night

Ruffin, Frances E. Martin Luther King and the March on Washington

St. George, Judith. So You Want to Be President

Thomson, Sarah L. Where Do Polar Bears Live?