# Student Learning Goals: Mathematics

| Collaborating in a Community of Readers and Writers | |
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| Contributing to Our Community | I contribute to maintaining a classroom community that feels safe, where everyone is able to take risks and grow. |
| Collaborating Effectively | I work with partners and groups in ways that are both respectful and risk-taking. |
| Participating Thoughtfully | I make my thinking count in discussions, as a speaker and a listener. I share my reading confusions and understandings to get and give help.<br>I listen and learn from the reading confusions and understandings of others. |
| Building a Literacy Context | I understand and use the shared literacy vocabulary of our classroom. |
| Being Open to New Ideas | I appreciate and evaluate alternative viewpoints. |
| Developing a Literacy Agenda | I read to understand how literacy opens and closes doors in people's lives. |
| Sharing Books | I talk about books I am reading to involve others in what the books have to offer. |
| Writing to Communicate | I write to communicate my ideas to others. |

| Building Personal Engagement | |
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| Knowing My Reader Identity | I am aware of my reading preferences, habits, strengths, weaknesses, and attitudes—my Reader Identity. |
| Practicing | I put effort into practicing new reading strategies so that they become automatic. |
| Digging In | I am increasing my confidence and persistence for digging into text that seems difficult or boring. |
| Building Silent Reading Fluency | I read more smoothly and quickly, so I get more pages read. |
| Building Oral Reading Fluency | I read aloud more fluently and expressively. |
| Increasing Stamina | I set and meet stretch goals to read for longer and longer periods. |
| Increasing Range | I set and meet stretch goals for extending the range of what I read. |
| Choosing Books (SSR+) | I use tools I have learned for choosing a book that's right for me. |
| Taking Power | I read to understand how what I read applies to me and gives me power. |
| Reflecting on My Evolving Reader Identity | I reflect in discussions and in writing on my growth as a reader—my evolving Reader Identity. |
| Writing to Reflect | I use writing to step back and think about what I am learning. |

| Making Thinking Visible | |
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| Monitoring | I monitor my reading processes and identify problems. |
| Repairing Comprehension | I know what strategies to use to get back on track. |
| Talking to Understand Reading | I talk about my reading processes to understand them better. |
| Writing to Understand Reading | I write about my reading processes to understand them better. |

| Using Cognitive Strategies to Increase Comprehension: Mathematics | |
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| Setting a Reading Purpose | I set a purpose for reading a text and keep it in mind while I read. |
| Choosing a Reading Process | I vary my reading process to fit my reading purpose. |
| Previewing | I preview text that is long or appears to be challenging, to mobilize strategies for dealing with it. |
| Identifying and Evaluating Roadblocks | I identify specific reading roadblocks and decide what to do. |
| Tolerating Ambiguity | I tolerate ambiguity or confusion in understanding a text while I work on making sense of it. |
| Clarifying | I work to clear up a reading confusion, whether it is a word, a sentence, an idea, or missing background information that I need to find. |
| Using Context | I use context to clarify confusions by reading on and rereading. |
| Making Connections | I make connections from texts to my experience and knowledge. |
| Chunking | I break difficult text into smaller pieces to better understand the whole. |
| Visualizing | I try to see in my mind what the text is describing.<br>I read and create numerical representations to help clarify complex mathematical text and ideas. |
| Questioning | I ask myself questions when I don't understand.<br>I ask myself questions about the text, and I know where to find the answers—whether in my mind, the text, other texts, other people, or a combination of these.<br>I ask inquiry questions when something I read makes me want to know more. |
| Predicting | I use what I understand in the reading to predict what a reasonable answer might be. |
| Organizing Ideas and Information | I use graphic organizers to sort out ideas or items of information to see how they are related. |
| Paraphrasing | I restate a sentence or an idea from a text in my own words. |
| Getting the Gist | I read and answer in my own words the question, "What do I know so far?" |

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| Summarizing | I boil down what I read to the key points. |
| Sequencing | I order the steps in solving a problem. |
| Comparing and Contrasting | I make comparisons to identify similarities and differences. |
| Identifying Cause and Effect | I find conditions or events that contribute to or cause particular outcomes. |
| Using Evidence | I use evidence to build and support my understanding of texts and concepts. |
| Rereading | I reread to build understanding and fluency with mathematical language and processes. |
| Writing to Clarify Understanding | I write about what I think I know to make it clearer to myself. |

**Building Knowledge: Mathematics**

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| Mobilizing Schema | I use my relevant networks of background knowledge, or schema, so that new information has something to connect to and is easier to understand. |
| Building and Revising Schema | I add to and revise my schema as I learn more. |
| Synthesizing | I look for relationships among my ideas, ideas from texts, and ideas from discussions. |
| Writing to Consolidate Knowledge | I use writing to capture and lock in new knowledge. |

**Building Knowledge . . . About Text: Mathematics**

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| Text Structure | I use my knowledge of text structures to predict how ideas are organized. |
| Text Features | I use my knowledge of text features like headings and graphics to support my understanding. |
| Text Density | Because I know that mathematics text is often tightly packed with new terms and ideas, I preview and reread it. Because I know that mathematics text is often tightly packed with new terms and ideas, I chunk and restate the chunks in familiar language to keep track of the gist as I read. |

**Building Knowledge . . . About Language: Mathematics**

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| Word Analysis | I use my knowledge of word roots, prefixes, and suffixes to figure out new words. |
| Referents | I use my knowledge of pronouns and other referents to find and substitute the word a pronoun or other word is standing for. |
| Signal Words and Punctuation (Text Signals) | I use my knowledge of signal words and punctuation to predict a definition, results or conclusions, examples, sequence, comparison, contrast, a list, or an answer. |

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| Contextual Redefinition | I know that when familiar terms are used in unfamiliar ways, I can redefine them in context to clear up confusion. |
| Sentence Structure | I use my knowledge of sentence structure to help me understand difficult text. |
| Word-Learning Strategies List | I use strategies to learn new words in the texts I read. |
| **Building Knowledge . . . About the Discipline of Mathematics** | |
| Conceptual Categories* | I can identify the purpose for and use different areas of math knowledge such as number, algebra, functions, geometry, statistics and probability, and modeling. |
| Mathematical Reasoning | I can think interchangeably about a math problem in abstract and quantitative terms. I monitor the reasonableness of the relationship between my abstract and quantitative thinking. |
| Mathematical Representation | I can read and represent mathematics with words, formulas, and mathematical symbols. I can read and create diagrams, tables, graphs, and flowcharts for mathematical purposes. |
| Mathematical Language | I understand the precise nature of mathematical language and use it to communicate exactly. |
| Problem Identification | I can read and identify "the problem" in a math problem. |
| Problem Solving | I make conjectures about and evaluate alternative approaches to a problem and then monitor the reasonableness of a solution approach as it proceeds. |
| Accuracy | I understand that in mathematics there may be alternate approaches to a solution, but only one correct answer. I check that the final solution makes sense and all computation is correct. |
| Pattern Application | I look for mathematical structures, approaches, and patterns that I can apply to the solution of new problems. |
| Mathematical Identity | I am aware of my evolving identity as a reader and user of mathematics. |

*These conceptual categories are drawn from the Common Core State Standards for Mathematical Practice.