

MATH STRATEGIES

Mathematical Reading	Thinking Strategies
Activating and Building Background Knowledge	<ul style="list-style-type: none"> • What do I already know about this type of problem, function, logarithm, or formula? • What do I know connect that will help me solve this problem? • What information do I need to find out in order to solve this problem? • How is what I'm solving for similar to what I've done before? • What patterns and relationships do I notice?
Asking Questions	<ul style="list-style-type: none"> • What is the problem asking me to do? • What would a reasonable answer be? • How is what I'm solving for fit in the world outside of school? • What information do I need to solve this problem? • Where can I go to get more information?
Inferring to Draw Conclusions	<ul style="list-style-type: none"> • How can I estimate, predict, and generalize the information in front of me to solve the problem? • What information do I glean from the graphs/data and what might it mean? • How do the graphs and data help me predict and generalize trends or patterns? • How does my solution compare to what I know to be true?
Determining Importance	<ul style="list-style-type: none"> • What do I need to do first? • How do I use the information I already have to find the unknowns? • What relevant information is held in the datum, graphs, charts, and tables? • How will I record my calculations so that I can remember and reuse them?
Monitoring Comprehension	<ul style="list-style-type: none"> • What do I understand about the diagrams, data, and graphs? Where am I confused? • How would I explain to someone else how I solved the problem? Is my solution reasonable? • What specific vocabulary do I need to know? • Have I accurately read the units and correctly labeled my solution? • How can I check to see if my work is accurate?
Rereading to Repair Meaning	<ul style="list-style-type: none"> • What different ways could I attack the problem? • What question can I ask to isolate my confusion? • Are my calculations and conversions correct? • What could I sketch that would help me "see" what I am trying to solve for?
Synthesizing and Extending Thinking	<ul style="list-style-type: none"> • How has my thinking changed? • What am I wondering and thinking about now? • How will I use what I've figured out to complete a task or theorize other possibilities?