

Overarching Habits of Mind

MP1: Make sense of problems and persevere in solving them.

Definition	Characteristics
Example	Non-Example

MP1

MP6: Attend to precision.

Definition Communicate your mathematical thinking clearly and precisely. Be accurate when you count, measure, & calculate.	Characteristics accuracy, vocabulary, attention to detail
Example vocabulary word walls, peer editing “What’s another word for that?” “How might you label the answer?”	Non-Example: “that thing” numbers w/o labels “The number on the top of the fraction...”

MP6

Reasoning & Explaining

MP2 Reason abstractly and quantitatively.

<p>Definition</p> <p>Explain the meaning of numbers, words, pictures, symbols, tables, graphs, and concrete objects.</p>	<p>Characteristics</p> <p>contextualize & decontextualize, in & out of context</p>
<p>Example</p> <p>Singapore bar model</p> <p>“What do the numbers used in the problem represent?”</p> <p>“This shows...”</p>	<p>Non-Example</p> <p>“Ours is not to reason why, just invert and multiply”</p>

MP3 Construct viable arguments and critique the reasoning of others.

<p>Definition</p>	<p>Characteristics</p>
<p>Example</p>	<p>Non-Example:</p>

Modeling & Using Tools

MP4 Model with mathematics.

Definition	Characteristics
Example	Non-Example

MP4

MP5 Use appropriate tools strategically.

Definition Choose appropriate tools. Use mathematical tools correctly and efficiently.	Characteristics accessing resources
Example concrete models, yard stick, calculator, Color Tiles, base 10 blocks “What other tools might you use?”	Non-Example measuring the playground with Color Tiles

MP5

Seeing Structure & Generalizing

MP7 Look for and make use of structure.

<p>Definition</p> <p>See and understand how numbers and shapes are organized and put together as parts and wholes.</p>	<p>Characteristics</p> <p>operating, dissecting, discovering, deconstruct, decompose & compose</p>
<p>Example</p> <p>112 is 11 tens & 2 ones, 1 hundred & 12 ones, 1 hundred, 1 ten & 2 ones...</p>	<p>Non-Example</p> <p>teaching the algorithm without connections</p>

MP7

MP8 Look for and express regularity in repeated reasoning.

<p>Definition</p> <p>Use patterns and structures to create and explain rules and shortcuts. Use rules and shortcuts to solve problems.</p>	<p>Characteristics</p> <p>patterns, shortcuts</p>
<p>Example</p> <p>“Will the same strategy always work?”</p>	<p>Non-Example:</p> <p>starting from scratch, no looking back</p>

MP8