

Practice	Beginning- 1	Developing- 2	Secure- 3	Exceeding- 4
Tries to understand and solve math problems without giving up.	- Student is rarely able (or unable) to figure out the meaning of the problem and is rarely able to independently determine an appropriate strategy/tool to use to solve problems. - Constant teacher prompting is usually required.	Student inconsistently works to make sense of math problems, perhaps using objects or pictures to illustrate their understanding.	Student consistently works to make sense of math problems, perhaps using objects or pictures to illustrate their understanding.	- Student consistently works to make sense of math problems, perhaps using objects or pictures to illustrate their understanding. Able to solve problems in multiple ways.
Thinks about numbers in many ways.	Student is rarely able to connect a quantity to a written symbol and demonstrate a clear understanding of the meaning of quantity as represented in a problem solved using objects, pictures, drawings or actions.	Student is inconsistently able or may require teacher prompting to connect a quantity to a written symbol and demonstrate a clear understanding of the meaning of quantity using objects, pictures, drawings or actions.	Student usually connects a quantity to a written symbol and demonstrates a clear understanding of the meaning of quantity using objects, pictures, drawings or actions.	- Student consistently and independently connects a quantity to a written symbol and demonstrates a clear understanding of the meaning of quantity using objects, pictures, drawings or actions. - Student can use different properties of operations and objects flexibly.
Can explain their own thinking and tries to understand other students' strategies.	Student is rarely able to explain his/her mathematical reasoning and/or respond to others' thinking.	Student is inconsistently able to explain his/her mathematical reasoning and/or respond to others' thinking.	- Student can usually explain his/her mathematical reasoning and responds to others' thinking. - presents valid explanations of his/her work in a variety of ways, including verbally, in written form, and using concrete objects, drawings, or actions; - Listens to the explanations of others and asks useful questions to clarify or improve the arguments.	Student is able to do all things at a level 3 consistently..

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Uses math symbols and numbers to show work in different ways.	- Student rarely represents problem situations in multiple ways. Including numbers, words, drawing pictures, using objects, acting out, making a chart, list, or graph, etc. - Teacher prompting is frequently required.	- Student sometimes represents problem situations in multiple ways. Including numbers, words, drawing pictures, using objects, acting out, making a chart, list, or graph, etc. - Teacher prompting is sometimes required.	- Student usually represents solved problems given in a real-world context in multiple ways, including objects, pictures, charts, graphs, acting it out, equations, number lines and other mathematical diagrams. - Teacher prompting is rarely required.	- Student consistently represents solved problems given in a real-world context in multiple ways. Including objects, pictures, charts, graphs, acting it out, equations, number lines and other mathematical diagrams. - Teacher prompting is not necessary.
Uses math tools, pictures, drawings and objects to solve problems.	Student is rarely able to consider strategies and tools available to solve a problem or decide which tool/strategy would be helpful.	Student sometimes considers available tools and strategies available to solve a problem with teacher prompting or examples and decides which tools/strategies might be helpful.	- Student considers available tools and chooses those that are most relevant and useful to solve the problem at hand. - Tools may include physical objects, drawings, diagrams, measuring tools, geometric shapes, and others.	Student consistently and independently considers available tools and strategies (including estimation) when solving a problem and decides which tools/strategies might be helpful.
Works carefully and checks work.	- Student begins to explain their mathematical reasoning with others but does not use clear and precise language, or student is unable to communicate mathematical reasoning. - Student work is incomplete or student rushes resulting in careless errors. - Student rarely check over his/her work for accuracy base on the context of the problem. - Student seldom labels answers, measurement, etc.	- Student is sometimes able to communicate mathematical reasoning using clear and precise language. - Student sometimes rushes, resulting in careless errors and calculations. - Student inconsistently labels answers, measurements, etc. - Teacher prompting to recheck work is sometimes required.	- Student consistently communicates mathematical reasoning using precise language. - Student calculations are usually accurate and efficient, expressing answers with the degree of precision appropriate for the problem. - Student is careful to label answer and identify appropriate units of measurement that correspond to the quantities of the problem.	- Student is able to consistently communicate mathematical reasoning using clear and precise language. - Student calculations are always accurate and efficient, expressing answers with the degree of precision appropriate for the problem. - Student is careful to label answer and identify appropriate units of measurement that correspond to the

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	Teacher prompting to recheck work is usually required.		Teacher prompting to recheck work is seldom required.	quantities of the problem. Written work is neat and organized.
Uses what they know about math to solve problems.	- Student is rarely able to see the pattern or structure in any given problem. - Student rarely adopts mental math strategies based on patterns (making 5, using ten frame and seeing 10, counting on, etc.). - Teacher prompting is frequently required.	- Student is sometimes able to see the pattern or structure in any given problem. - Student sometimes adopts mental math strategies based on patterns (making 5, using ten frame and seeing 10, counting on, etc.). - Teacher prompting is sometimes required.	- Student usually looks closely to discover a pattern or structure in any given problem. - Student usually adopts mental math strategies based on patterns (making 5, using ten frame and seeing 10, counting on, etc.). - Teacher prompting is rarely required.	- Student consistently looks closely to discover a pattern or structure in any given problem. - Student consistently adopts mental math strategies based on patterns (making 5, using ten frame and seeing 10, counting on, etc.). - Teacher prompting is not necessary.
Solves problems by looking for rules and patterns.	- Student rarely notices repetitive actions in counting and computation, etc. - Teacher prompting is frequently required.	- Student sometimes notices repetitive actions in counting and computation, etc. - Teacher prompting is sometimes required.	- Student usually notices repetitive actions in counting and computation, etc. - Uses knowledge of math to look for shortcuts - Looks for the reasonableness in answers - Teacher prompting is rarely required.	- Student consistently notices repetitive actions in counting and computation, etc. - Students continually checks his/her work by asking themselves, "Does this make sense?" - Teacher prompting is not necessary.