**K.MP.1. Make sense of problems and persevere in solving them.**

In Kindergarten, students begin to build the understanding that doing mathematics involves

solving problems and discussing how they solved them. Students explain to themselves the

meaning of a problem and look for ways to solve it. Younger students may use concrete objects

or pictures to help them conceptualize and solve problems. They may check their thinking by

asking themselves, “Does this make sense?” or they may try another strategy.

**K.MP.2. Reason abstractly and quantitatively.**

Younger students begin to recognize that a number represents a specific quantity. Then, they

connect the quantity to written symbols. Quantitative reasoning entails creating a representation

of a problem while attending to the meanings of the quantities.

**K.MP.3. Construct viable arguments and critique the reasoning of others.**

Younger students construct arguments using concrete referents, such as objects, pictures,

drawings, and actions. They also begin to develop their mathematical communication skills as

they participate in mathematical discussions involving questions like “How did you get that?” and

“Why is that true?” They explain their thinking to others and respond to others’ thinking.

**K.MP.4. Model with mathematics.**

In early grades, students experiment with representing problem situations in multiple ways

including numbers, words (mathematical language), drawing pictures, using objects, acting out,

making a chart or list, creating equations, etc. Students need opportunities to connect the

different representations and explain the connections. They should be able to use all of these

representations as needed.

**K.MP.5. Use appropriate tools strategically.**

Younger students begin to consider the available tools (including estimation) when solving a

mathematical problem and decide when certain tools might be helpful. For instance,

kindergarteners may decide that it might be advantageous to use linking cubes to represent two

quantities and then compare the two representations side-by-side.

**K.MP.6. Attend to precision.**

As kindergarteners begin to develop their mathematical communication skills, they try to use

clear and precise language in their discussions with others and in their own reasoning.

**K.MP.7. Look for and make use of structure.**

Younger students begin to discern a pattern or structure. For instance, students recognize the

pattern that exists in the teen numbers; every teen number is written with a 1 (representing one

ten) and ends with the digit that is first stated. They also recognize that 3 + 2 = 5 and 2 + 3 = 5.

**K.MP.8. Look for and express regularity in repeated reasoning.**

In the early grades, students notice repetitive actions in counting and computation, etc. For

example, they may notice that the next number in a counting sequence is one more. When

counting by tens, the next number in the sequence is “ten more” (or one more group of ten). In

addition, students continually check their work by asking themselves, “Does this make sense?