Standards Aligned SystemPennsylvania Department of Education

**Look for and**

**express regularity in**

**repeated reasoning**.

\*Notice repetitive actions in computation and

look for more shortcut methods.

\*Use the distributive property as a strategy for using products they know to solve products that they don’t know. For example, if students are asked to find the product of 7x8, they might decompose 7 into 5 and 2 and then multiply 5x8 and 2x8 to arrive at 40+16 or 56.

\*Continually evaluate their work by asking themselves, “Does this make sense?”

**Look for and make use of structure.**

\*Look closely to discover a pattern or structure.

\*Use properties of operations as strategies to multiply and divide (commutative and distributive properties).

**Use appropriate tools**

**strategically.**

\*Consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful.

\*Use graph paper to find all the possible rectangles that have a given perimeter.

\*Compile the possibilities into an organized list or a table, and determine whether they have all the possible rectangles.

**Attend to precision.**

\*Develop their mathematical communication skills.

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

\*Specify units of measure and state the meaning of the symbols they choose. For instance, when figuring out the area of a rectangle they record their answers in square units.

**Model with Mathematics.**

\*Experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart, list, or graph, creating equations, etc.

\*Need opportunities to connect the different representations and explain the connections.

\*Use all of these representations as needed.

\*Evaluate their results in the context of the situation and reflect on whether

the results make sense.

**Grade 3**

**Grade Level Emphasis**

**PA Core Standards**

**Standards for Mathematical Practice**

***Tool Developed by***

**Central Intermediate Unit # 10**

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**Reason abstractly and quantitatively.**

\*Recognize that a number represents a specific quantity.

\*Connect the quantity to written symbols and create a logical representation of the problem at hand, considering both the appropriate units involved and the meaning of quantities.

**Make sense of problems**

**and persevere in solving them.**

\*Know that doing mathematics involves solving problems and discussing how they solved them.

\*Explain to themselves the meaning of a problem and look for ways to solve it.

\*Use concrete objects or pictures to help them conceptualize and solve problems.

\*Check their thinking by asking themselves, “Does this make sense?”

\*Listen to the strategies of others and will try

different approaches.

\*Use another method to check

their answers.

**Construct viable**

**arguments**

**and critique the reasoning of others.**

\*Construct arguments using concrete referents, such as objects, pictures, and drawings.

\*Refine their mathematical communication skills as they participate in mathematical discussions involving questions like, “How did you get that?” and “Why is that true?”

\*Explain their thinking to others and respond to others’ thinking.

**MP 2**

**MP 8**

**MP 3**

**MP 1**

**MP 7**

**MP 5**

**MP 6**

**MP 4**