**Guided Notes- Chapter 2: Arithmetic Strategies and Area Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**In this chapter I CAN:**

* **analyze the strengths and weaknesses of various graphical representations of data.**
* **define and measure the area of rectangles and shapes that can be broken into rectangles.**
* **use a generic rectangle to multiply, both on paper and mentally.**
* **find the greatest common factor of selected numbers.**

**2.1.1 How can I represent data?**

**Dot Plots and Bar Graphs**

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| 2-1 How Many Pets?  |
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|  |
| c. | d. |

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| 2-2 Cats And Dogs |
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| b.  |
| c.  |
| d. |

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| 2-3 Mrs. McKenzie’s Class Favorite Color |
| Given the data in the table, create a graph. Decide if a dot plot, bar graph, or Venn diagram will work best.

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| 2-4 Mr. Reed Survey |
| Create a graph of the data he collected. Decide if a dot plot or bar graph will work best.

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**2.1.2 How else can I represent data?**

**Histograms and Stem-and-Leaf Plots**

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| 2-11 Estimating 60 Seconds |
| What are we investigating? | How many pieces of data are we collecting? | How will we measure it? | What unit of measurement will we use? |
| Do you think the class would be more accurate at estimating 10 seconds or 60 seconds?What about 200 seconds?Why? | What might affect the quality of the data? | What do you expect the data to show? |

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| 2-12 Useful Forms Of Data  |
|  |
| b. |
| c.  |
| d. |

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| 2-13 Creating A Histogram  |
|  |
| 1.
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| 1.
 |
| d. |

**2.2.1 What else can I measure?**

**Explore Area**

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| --- |
| 2-20 How Big Is Your Desk?  |
|   |  |  |  |
| 2-21 |
| a. |
| b. |

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| 2-22 Block It |
|  |
|  |
|  |
|  |
| 1. i.
 | ii. |

**2.2.2 How can I measure with square units?**

**Square Units and Area of Rectangles**

|  |
| --- |
| 2-29 Be There, Or Be Square |
| a. |
| b | c. |

|  |
| --- |
| 2-30 Nathaniel’s Patio |
| a. | b. |
| c. |

|  |
| --- |
| 2-31  |
| a. |
| b. |
| c. |
| d. |

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| 2-32 |
|  |
|  |
| 2-33 |
| 1. Find the area of the figure in at least two different ways. Explain how you got your answer with diagrams and remember to label.

#1: | #2 |
| 1. Find the perimeter of the figure.
 |

**2.2.3 Is there a relationship?**

**Area and Perimeter**

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|  2-39 |
| What is area of an object?  | What is the perimeter of an object? |
| a.  | b. |
| 1. Area=

Perimeter= | Area=Perimeter= | Area=Perimeter= |
| 1. What is the combined area of the blocks drawn?
 |
|  | f.  |

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| 2-40 Changing The Area |
|  |
| b. |
|  |
| d. |

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| 2-41 |
|  | b. |

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| 2-42  |
| a. | b. | c. |

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| 2-43 |
| a. | b. |

**2.3.1 How can I make the largest area?**

 **Using Rectangles to Multiply**

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| 2-51 Special Products |
| Explanation of strategy: |
| 2-52 Maximizing Area |
| a.  |
| b. |
| c. |
| 2-53  |
| a. |
| b.Sketch two rectangles on paper and label dimensions.Sketch: 1 | Are dimensions of each of the rectangles the same, or are some of them different?Sketch:2 |
| c. |
| d. |
| e. |
| 2-54 |
|  |
| b. |
| c. |
| d. |

**2.3.2 How can I find products efficiently?**

 **Using Generic Rectangles**

|  |
| --- |
| 2-60 |
| a. |
|  | c. |
| 2-61 |
| a.  |  |
| b.  | d. |
| * 1. Generic Rectangle Puzzles
 |
| a.i. | Ii | iii. |
| b. |
| c. |

**2.3.3 How can I understand products?**

 **Generic Rectangles and Greatest Common Factor**

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| --- |
| 2-70  |
| What is a common factor? | What is a greatest common factor? |
| a. |
| b. |
| 2-71 |
| a. | b. |
| 2-72 |
|  |  |
| 2-73 |
| a. Draw. | Write multiplication sentence. |
| 1. Draw.

  | Write multiplication sentence. |
| c. Draw.  | Write multiplication sentence. |

**2.3.4 How can I rewrite products?**

 **Distributive Property**

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| 2-80 |
| 1. Draw a diagram for 8 (32).
 |
| 1. Write a number sentence that only uses addition to represent 8(32).
 |
| 1. Write a number sentence with multiplication, parentheses, and addition to represent 8(32).
 |
| 1. Find the product of 8(32)
 |
| 2-81 |
| 1. Draw generic rectangle.
 | Write equation.  | Find product. |
| 1. Draw generic rectangle.
 | Write equation. | Find product. |
| 1. Draw generic rectangle.
 | Write equation | Find product. |
| 2-82 |
| What is the Distributive Property? |
| a. 5 ( 6 + 9 ) | b. 11 ( 2 + 5 ) | c. 4 \* 512 |
| 2-83 |
| a. How can you see the Distributive Property in the top and bottom halves of the rectangle? |
|  |  |