

Understanding by Design: MHSD 193

Designer Name(s): 2nd Grade Team

Date: 6.4.14

Subject Area: Mathematics

Grade Level(s): 2

Unit Title/Focus: Lessons 61-70

Estimated Amount of Instructional Time: ~12 Days

Stage 1 – (Desired Results)

State Content and Skill Standards:

- CC.K-12.MP.1, 2, 4, 5, 6 & 7
- 2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.
- 2.NBT.5. Fluently add and subtract within 100 using strategies based on place value
- 2.NBT.6. Add up to four two-digit numbers using strategies based on place value
- 2.NBT.7. Add and subtract within 1000, using concrete models or drawings
- 2.NBT.9. Explain why addition and subtraction strategies work
- 2.OA.2. Fluently add and subtract within 20 using mental strategies.
- 2.G.1. Recognize and draw shapes having specified attributes, angles or equal faces.¹ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

Enduring Understandings: *(what are the big ideas, what are the specific understandings desired)*

Students will understand:

- When adding two-digit numbers, regrouping may be necessary
- Information can be organized on a Venn diagram.
- A Venn diagram is a way to compare two or more sets of data that may have one characteristic in common.

Essential Questions: *(what questions will foster inquiry, understanding, and transfer of learning)*

- How can I use dimes and pennies to model an example of regrouping?
- How do I display data in a Venn diagram?
- What questions can I answer by looking at a Venn diagram?

Big Idea(s)

**Use place value understand and properties of operations to add and subtract.
Reason with shapes and their attributes.**

What Students will know: *(what knowledge will they acquire)*

- Dimes and pennies may be used to represent adding two-digit numbers; 10 pennies may be regrouped as 1 dime.
- Steps for completing an Addition Algorithm
- Subtracting Facts
- Similar Shapes are either the same size, or shape.
- Elements of a Venn Diagram
- a.m. describes the hours before noon, p.m. describes the hours after noon.
- Noon is 12:00 p.m.; Midnight is 12:00 a.m.
- Dozen = 12; half dozen = 6
- Three, Two-Digit Numbers may be added together.
- Thermometers have a scale of 2 for reading temperature.
- Subtracting Facts
- Guessing and Checking may be used to solve a problem
- Geometric Shapes may be comprised of other geometric shapes

Vocabulary: *dozen half dozen, subtract*

What Students will be able to do: *(what will they eventually be able to do as a result of their skills learned/knowledge)*

- Add Two-Digit Numbers with Regrouping, Using Dimes and Pennies
- Use the Addition Algorithm
- Mentally compute -1 facts
- Identify and Create Similar Shapes and Designs
- Create and Read a Venn Diagram
- Identify a.m. and p.m.
- Identify Noon and Midnight
- Identify Dozen and Half Dozen
- Add Three Two-Digit Numbers
- Read a Thermometer to the Nearest 2 Degrees Fahrenheit
- Mentally compute -2 facts
- Solve a Problem by Guessing and Checking when appropriate
- Identify and Create Overlapping Geometric Shapes

Stage 2 - Assessment Evidence (acceptable assessment evidence that students understand)

Performance Tasks: *(what authentic performance task (s) will students demonstrate understanding; by what criteria will it be judged?)*

Other Evidence: *(quizzes, tasks, academic prompts, homework, observations)*

Worksheet 70B:

- At the Harbor school store children can buy stickers. Happy-face stickers cost 1 cent each and star stickers cost 3 cents each. William bought some happy-face stickers and some star stickers. He spent 9 cents for stickers. Show which stickers he bought.

Fact Assessment 12

- 100 Addition Facts

Written Assessment 12

- SSM story; writes number sentence; solves
- Numbers, identifies points on number line
- Counts money (dimes, nickels, pennies)
- Draws pairs, counts all
- Draws lines of symmetry
- Adds 10; adds without regrouping

Fact Assessment 13-1 & 13-2

- Subtracting 1 & 0
- 100 Addition Facts

Written Assessment 13

- SSM story (money); writes number sentence; solves; writes as money
- Orders five two digit numbers
- Writes fraction of a whole: $\frac{1}{2}$, $\frac{3}{4}$
- Draws line segment using inches
- Identifies, counts angles
- Adds without regrouping; adds four and five one digit numbers

Oral Assessment 7

- Making congruent shapes
- Dividing a shape in half

Stage 3 - Learning Plan (sequence of teaching and learning activities that will produce desired understandings, engagement and development) Use WHERETO elements to help you:

Learning Activities:

Math Meetings 61 through 70-2

- Calendar
- Attendance graph
- Temperature
- Counting
- Problem of the day
- Clock
- Pattern
- Number of the day
- Money
- Fact family
- Secret Number

New Concepts 61 through 70-2

- State objective
- Explicit Instruction
- Guided Practice
- Written Practice
- Recap: "Who would like to share something they learned in math today?"
- Homework

Test-Taking Strategies Practice 10 (for use after Lesson 65)

- Identifying a Fractional Part of a Whole
- Identifying Congruent Shapes
- Estimate Length Using Nonstandard Units

Test-Taking Strategies Practice 11 (for use after Lesson 70)

- Identifying a Line of Symmetry
- Identifying a Fractional Part of a Whole

- Read a Venn Diagram
- Cumulative Review A (for use after Practice 11)
- Journal Writing
- Draw 2 congruent shapes. How do you know the two shapes you drew are congruent? (After lesson 65-2)
 - Write 3 facts the "Vegetables We Like" graph tells us about our class. (After lesson 66)
 - Think of something that doesn't come in a dozen and you wish it would. Explain. (After lesson 67)
 - Would you rather be awake at noon or midnight? Explain. What you would be doing? (After lesson 67).
 - What are 3 things you do between 7a.m. and 8 a.m.? (After lesson 67)
 - What are 3 things you do between 7 p.m. and 8 p.m.? (After lesson 67)
 - If it is 30 degrees F, what would you wear? Where would you go? (After lesson 69)
 - If it is 80 degrees F, what would you wear? Where would you go? (After lesson 69)

*Math Center Activities 50-57

*Extend and Challenge Activity 6

*Differentiated Instruction Activities 61 through 70-2

*if needed

W=help the students know WHERE the unit is going and WHAT is expected/Help teacher to know where the students are coming from (prior knowledge, interests)

H=HOOK all students and hold their interest

E=EQUIP students, help them EXPERIENCE the key ideas and EXPLORE the issue

R=Provide opportunities to RETHINK and REVISE their understanding/work

E (2)=Allow students to EVALUATE their work

T=Be TAILORED (personalized) to different needs, interests, and abilities of learners

O=Be ORGANIZED to maximize initial and sustained engagement as well as effective learning

Assessment Tasks that Provide Evidence for Claims including DOK	<input type="checkbox"/> Claim #1/DOK 1, 2, 3, 4 (circle one):	
	<input type="checkbox"/> Claim #2/DOK 1, 2, 3, 4 (circle one):	
	<input type="checkbox"/> Claim #3/DOK 1, 2, 3, 4 (circle one):	
	<input type="checkbox"/> Claim #4/DOK 1, 2, 3, 4 (circle one):	
Achievement Level Descriptors	ALD #1: ALD #2: ALD #3: ALD #4: (circle one):	
Materials/Resources	Saxon Math Lessons 61 through 70-2 Math Folders Lesson Worksheets 61 through 70-2 Guided/Written Practice 61 through 70-2 Journal Written Assessment 12 & 13 Fact Assessment 12 & 13 Oral Assessment 7 Recording Form Math Palettes Math Center Activities Extend and Challenge Guide Differentiated Instruction Guide	Pennies, dimes Work Mats Chart 65-1 Wrap-Ups Geoboards Geobands Attribute Shapes Chart 66 Empty Egg Carton Color Tiles