

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 11-20

Estimated Amount of Instructional Time: ~12 Days

Stage 1 – (Desired Results)

State Content and Skill Standards:

- CC.K-12.MP.1 through CC.K-12.MP.8
- 2.OA.1. Use addition and subtraction within 100 to solve one- and two-step problems
- 2.OA.2. Fluently add and subtract within 20 using mental strategies.
- 2.OA.3. Determine whether a group of objects (up to 20) has an odd or even
- 2.MD.9. Generate measurement data by measuring lengths of several objects to the nearest whole unit
- 2.MD.10. Draw a picture graph and a bar graph (with single-unit scale)
- 2.G.1. Recognize and draw shapes having specified attributes, angles or equal faces.¹ Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- 2.G.2. Partition a rectangle into rows and columns of same-size squares

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

Students will understand:

- Fractions are used to name parts of a whole
- The appropriate arithmetic operation must be chosen to solve a problem.
- Mathematical language is used to tell the place or position of something when things are in a row
- There are different pattern rules

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

- How do I know whether something has been divided into thirds? Sixths?
- How do I know which operation to use to solve a problem?
- How do I identify the seventh item in a row?
- What are some ways I can determine how to finish a pattern?

Big Idea(s)

**Represent and solve problems involving addition and subtraction.
Reason with shapes and their attributes.**

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

- How to identify "Some, Some Went Away" story problems
- How to name time in the past and future.
- Elements of a Clock face
- Even numbers can be divided into two groups evenly, while odd numbers will always have one left over.
- Even numbers end in 1, 2, 4, 6, or 8. Odd numbers end in 1, 3, 5, 7, or 9.
- Ordinal numbers are used to describe position
- Addition Facts
- Elements of a Repeating Pattern
- Weeks are made of week days and weekend days.
- Elements of a Pictograph
- Definition of a Polygon
- A whole can be divided into fractional parts.
- How Adding 10 to a Single-Digit Number changes the value

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

- Act Out "Some, Some Went Away" Stories to solve
- Identify the Time One Hour Ago and One Hour From Now
- Number a Clock face
- Identify Even and Odd Numbers
- Identify Ordinal Position in a set of 12
- Mentally compute +2
- Create and Read a Repeating Pattern
- Identify Weekdays and Days of the Weekend
- Creating and Reading a Pictograph
- Draw a Pictograph
- Identify a Polygon
- Identify Fractional Parts of a Whole
- Mentally compute Adding 10 to a Single-Digit Number
- Mentally compute +9

<ul style="list-style-type: none"> •Addition Facts •When to Use Logical Reasoning to Solve a Problem •When to Solve a Problem by Acting It Out •Elements of a Color Pattern <p>Vocabulary: <i>circle, divide, even, traction, half, most, odd, one half, one sixth, one third, pictograph, polygon, rectangle, side, weekday, weekend, whole, seventh, eighth, ninth, tenth, eleventh, twelfth</i></p>	<ul style="list-style-type: none"> •Use Logical Reasoning to Solve a Problem •Solve a Problem by Acting It Out •Create a Color Pattern
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Stage 2 - Assessment Evidence (acceptable assessment evidence that students understand)

<p>Performance Tasks: (what authentic performance task (s) will students demonstrate understanding; by what criteria will it be judged?)</p> <p><i>Worksheet 20B:</i></p> <ul style="list-style-type: none"> • Anjelica has five lunch boxes. The lunch boxes are yellow, red, purple, orange, and blue. She brings a different color lunch box to school each day. She brings the purple lunch box on the fourth school day of the week. She bring the blue lunch box on the second school day of the week. She brings the yellow lunch box on the day after the purple lunch box. She brings the red lunch box on the day after the weekend. Show on which day of the week Anjelica brings the orange lunch box. 	<p>Other Evidence: (quizzes, tasks, academic prompts, homework, observations)</p> <p>Fact Assessment 2</p> <ul style="list-style-type: none"> • Adding 1 & 2 • Doubles <p>Written Assessment 2</p> <ul style="list-style-type: none"> • Identifies ordinal position: 1st, 2nd, 4th & 5th; identified middle • Compares two numbers • Number pattern: count by 10's to 100 • Identifies missing numbers to 40 on a hundred number chart • Identifies right/left; draws circle, square • Addition facts +1 <p>Fact Assessment 3</p> <ul style="list-style-type: none"> • Review; Adding 2 <p>Written Assessment 3</p> <ul style="list-style-type: none"> • Identifies stories: SSM, SWA • Continues shape pattern • Writes two-digit numbers • Identifies equal parts of a whole • Identifies one more, one less than a number • Addition facts: double, +1, +0 <p>Oral Assessment 2</p> <ul style="list-style-type: none"> • Identifying ordinal position
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Stage 3 - Learning Plan (sequence of teaching and learning activities that will produce desired understandings, engagement and development) Use WHERETO elements to help you:

<p><i>Learning Activities:</i></p> <p>Math Meetings 11 through 20-2</p> <ul style="list-style-type: none"> • Calendar • Attendance graph • Temperature • Counting • Problem of the day • Clock • Pattern • Number of the day <p>New Concepts 11 through 20-2</p> <ul style="list-style-type: none"> • 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 1 (for use after Lesson 20)
- Identifying Triangles and Squares
 - Identifying Even and Odd Numbers
 - Identifying Time to the Hour and Elapsed Time
- Journal Writing
- Write your age. Is it even or odd? How do you know? (After lesson 13)
 - Write about something you do on a weekend. (After lesson 16)
 - Write about something you do on a weekend. (After lesson 16)
 - What is your favorite day of the week? Why is it your favorite day of the week? (After lesson 17)
 - Draw and write about a polygon you see in the classroom. (After lesson 18)
 - Draw a candy bar. Show how to divide it in half. Tell who you would share it with. (After lesson 19)
 - Explain in words the adding 9 trick (After lesson 20-1)
- Literature Connections
- *The Grouchy Ladybug*, Eric Carle
 - *Even Steven & Odd Todd*, Kathryn Cristaldi
- *Math Center Activities 8-13
 *Extend and Challenge Activity 3
 *Differentiated Instruction Activities 11 through 20-2
- *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	<table border="1" style="width: 100%;"> <tr> <td style="vertical-align: top;"> Saxon Math Lessons 11 through 20-2 Math Folders Lesson Worksheets 11 through 20-2 Guided/Written Practice 11 through 20-2 Journal Written Assessment 2 & 3 Fact Assessment 2 & 3 Oral Assessment 2 Recording Form Math Palettes Math Center Activities Extend and Challenge Guide Differentiated Instruction Guide </td> <td style="vertical-align: top;"> Crayons Pattern Blocks Student Clocks Student Fact Cards Teacher Fact Cards Pattern Blocks Color Tiles Favorite Days of the Week Chart Pennies </td> </tr> </table>	Saxon Math Lessons 11 through 20-2 Math Folders Lesson Worksheets 11 through 20-2 Guided/Written Practice 11 through 20-2 Journal Written Assessment 2 & 3 Fact Assessment 2 & 3 Oral Assessment 2 Recording Form Math Palettes Math Center Activities Extend and Challenge Guide Differentiated Instruction Guide	Crayons Pattern Blocks Student Clocks Student Fact Cards Teacher Fact Cards Pattern Blocks Color Tiles Favorite Days of the Week Chart Pennies
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