

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 131-C

Estimated Amount of Instructional Time: ~8 Days

Stage 1 – (Desired Results)

State Content and Skill Standards:

- CC.K-12.MP.1 through CC.K-12.MP.8
- 2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.
- 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.

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

Students will understand:

- When you share so that each person will have the same amount, you are dividing a set of objects into equal groups.
- A graph is a way to organize data using real objects, pictures, or symbols.
- Finding the mode and range of a set of data is useful in an experiment.
- Plane figures can be identified by their attributes.
- There are several methods (mental computation, paper/pencil, or calculator) that can be used for finding the answer to a problem.

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

- How can I divide a group of objects into equal groups?
- How can I record information on a bar graph?
- What general rule do you notice about the number of sides and angles for plane figures?
- How do I know the best method to use (mental computation, paper and pencil, or a calculator) to solve a problem?

Big Idea(s)

**Represent and interpret data.
Reason with shapes and their attributes.**

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

- Different tools can be used to Measure Mass
- Weight (Mass) may be measured using Metric Units
- Numbers may be doubled
- A set of objects may be divided into equal groups
- Information may be recorded on a graph
- The elements of a Probability Experiment
- A Set of Data includes a mode and range
- Calculators may be used to Add, Subtract, Multiply, and Skip Count
- Different methods may be used to Find the Answer to a Problem
- Calculators may be used to Compare Data
- There are different classifications of angles
- Characteristics of Plane Figures
- Definition of a Pentagon

Vocabulary: *acute angle, gram, mass, metric, obtuse angle, range*

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

- Select the Appropriate Tool to Measure Mass
- Measure Weight (Mass) Using Metric Units
- Double a Number
- Divide a Set of Objects Into Equal Groups
- Record Information on a Graph
- Conduct a Probability Experiment
- Identify the Mode and Range of a Set of Data
- Use a Calculator to Add, Subtract, Multiply, and Skip Count
- Choose an Appropriate Method for Finding the Answer to a Problem
- Use a Calculator to Compare Data
- Identify Acute and Obtuse Angles
- Describe and Classifying Plane Figures
- Identify Pentagons

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

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| <p>Performance Tasks: (what authentic performance task (s) will students demonstrate understanding; by what criteria will it be judged?)</p> | <p>Other Evidence: (quizzes, tasks, academic prompts, homework, observations)</p> <p>Fact Assessment 26</p> <ul style="list-style-type: none"> • Multiplying by 2, 3, 4 and 5 <p>Written Assessment 26</p> <ul style="list-style-type: none"> • SSM story with three-digit numbers (money) writes number sentences; solves • Reads, draws pictograph with scale of 2 • Identifies, places points on coordinate plane • Identifies time to the quarter hour • Identifies best number sentence for estimating a sum • Uses comparison symbols: <, >, =; multiplies by 2, 3, 4; divides by 2 |
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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:

Learning Activities:

Math Meetings 131-C

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

New Concepts 131-C

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

Journal Writing

- What is something that weighs more than you? What is something that weighs less than you? (After lesson 131)
- Write a story problem for your classmates to solve. Use extraneous information in your problem. (After lesson 132)
- Write a letter to a first grade student. Tell about 3 things you learned in math that you think they will like. (After lesson 135)

Literature Connections

- *The Doorbell Rang*, Pat Hutchins

*Math Center Activities 111-113

*Differentiated Instruction Activities 131-C

*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

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| 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"> <tr> <td> Saxon Math Lessons 131 through C Math Folders Lesson Worksheets 131 through C Guided/Written Practice 131 through C Journal Written Assessment 26 Fact Assessment 26 Math Palettes Math Center Activities Extend and Challenge Guide Differentiated Instruction Guide </td> <td> Balance (scale) Store Coupons Color Tiles Dominoes Brown Paper Bags Calculators Grocery Bags/Items Crayons Pattern Blocks </td> </tr> </table> | Saxon Math Lessons 131 through C Math Folders Lesson Worksheets 131 through C Guided/Written Practice 131 through C Journal Written Assessment 26 Fact Assessment 26 Math Palettes Math Center Activities Extend and Challenge Guide Differentiated Instruction Guide | Balance (scale) Store Coupons Color Tiles Dominoes Brown Paper Bags Calculators Grocery Bags/Items Crayons Pattern Blocks |
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