Designer Name(s): 2nd Grade Team

Subject Area: Mathematics

Unit Title/Focus: Lessons 101-110

Estimated Amount of Instructional Time: ~**12 Days**

Date: 6.4.14

Grade Level(s): 2

Stage 1 – (Desired Results)

State Content and Skill Standards:

CC.K-12.MP.1 through CC.K-12.MP.8

2.NBT.1. three digits of three-digit number represent hundreds, tens, and ones

2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.

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.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.MD.1. Measure rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.2. Measure the length of an object twice, using length units of different lengths

2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.4. Measure to determine how much longer one object is than another

2.MD.5. Use addition and subtraction within 100 to solve word problems involving lengths

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.

Enduring Understandings: (what are the big ideas, what are the specific understandings desired)	*Essential Questions: (what questions will foster inquiry, understanding, and transfer of learning)*
Students will understand: • Multiplying by 5 is the same as counting by 5. • Centimeters and meters are metric units of measure used to measure length. • There are special measuring tools for measuring length. • Geometric solids can be described and classified by the number and shapes of the faces. • Different activities are measured using different units of time.	• When you multiply one digit numbers by 5, what pattern do you see in the answers? • How many centimeters are in one meter? • What measuring tool will I use to measure the length of a pencil? • How are a cube and a rectangular prism alike? Different? • What are some things I can do in one second? One minute? One hour?

Big Idea(s)

Measure and estimate lengths in standard units.
Relate addition and subtraction to length.
Represent and interpret data.

What Students will know: (what knowledge will they acquire)	*What Students will be able to do: (what will they eventually be able to do as a result of their skills learned/knowledge)*
•Characteristics of Geometric Solids (Cone, Cube, Sphere, Cylinder, Rectangular Prism, and Pyramid) •Different Tools can be used for Measuring Length • Metric Units of Length •Line segments may be measured in inches or centimeters •multiplying by 1 means 1 unit of _____; the value does not change	•Identify, Describe, and Compare Geometric Solids (Cone, Cube, Sphere, Cylinder, Rectangular Prism, and Pyramid) •Select an Appropriate Tool for Measuring Length •Identify Metric Units of Length •Measure and Draw Line Segments Using Centimeters •Multiply by 1 •Multiply by 100 •Find Perimeter

•multiplying by 100 means 100 units of ____; skip counting by 100's
•Definition of perimeter
•Subtracting 9 Facts
•Graphs can be used to make observations
•Different activities take different amounts of time
•Clock faces have 60, 1-minute marks
•Skip counting by 25's, 10's, 5's & 1's to count Quarters, Dimes, Nickels, and Pennies
•Money Amounts can be shown using Quarters, Dimes, Nickels, and Pennies
•Definition of parallel lines & line segments
•Three-Digit Numbers and Money Amounts may be added together.
•Sums may be estimated
•Multiplying by 5 mean 5 units of ___'; skip counting by 5's
•Drawing Pictures and Writing Multiplication Number Sentences can be used to Show Equal Groups
•Making an Organized List can be used to Solve a Problem
• Customary Units can be used to measure weight
Vocabulary: *centimeter, cone, cylinder, edge, endpoint, face, geometric solid, kilogram, metric units, parallel, perimeter, pound, pyramid, rectangular prism, sphere, vertex, weight*

•Mentally compute -9 facts
•Write Observations From a Graph
•Identify Activities That Take One Hour, One Minute, and One Second
•Tell and Show Time to the Minute
•Counting Quarters, Dimes, Nickels, and Pennies
•Show Money Amounts Using Quarters, Dimes, Nickels, and Pennies
•Identify Parallel Lines and Line Segments
•Add Three-Digit Numbers and Money Amounts
•Estimate Sums
•Multiply by 5
•Draw Pictures and Write Multiplication Number Sentences to Show Equal Groups
•Make an Organized List to Solve a Problem when appropriate
•Measure Weight Using Customary Units

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 110B: • Mr. Bribiesca has orange, blue, and green folders for the children in his class. He has yellow and red pencils. Each child in his class can choose a folder and a pencil. Show the different ways Robert could choose a folder and a pencil.	Fact Assessment 20-1 & 20-2 • Subtracting 8 & 7 • Subtracting 0-8 Written Assessment 20 • SWA story with regrouping; writes number sentence; solves • Draws picture for number; writes number in expanded form; writes numbers using digits • Draws, counts money (quarters) • Uses comparison symbols: <,>, = • Multiplies by 10 • Subtracts two-digit numbers with regrouping Fact Assessment 21-1 & 21-2 • Subtracting 9 & 8 • 100 Subtraction Facts Written Assessment 21 • SSM story with extra information; shows one half of even number by sharing; rounds to nearest 10 • Identifies geometric solids: cone, sphere, cylinder, cube • Multiplies by 1, 10 & 100 • Adds/subtracts two digit numbers with regrouping Oral Assessment 11 • Reading and Showing Time to Five-Minute Intervals

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 101 through 110-2
- Calendar
- Attendance graph
- Temperature
- Counting
- Problem of the day
- Clock
- Pattern
- Number of the day
- Money
- Fact family
- Secret Number

New Concepts 101 through 110-2
- 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 18 (for use after Lesson 105)
- Identifying the Value of a Digit in a Three-Digit Number
- Identifying a Number Sentence for Estimating a Sum
- Identifying Geometric Solids

Test-Taking Strategies Practice 19 (for use after Lesson 110)
- Identifying the Value of a Set of Coins
- Finding a Perimeter
- Writing a Story Problem for a Number Sentence

Journal Writing
- Choose two geometric solids and explain two ways they are alike or two ways they are different. (After lesson 101)
- If you needed to measure the perimeter of our classroom, how would you do it? (After lesson 104)
- Write about something that takes you about one hour to do. (After lesson 106)
- Where do we see parallel lines on the playground? Explain how you know they are parallel. (After lesson 108)
- Write an equal groups story problem for 2 x 5 = ___. (After lesson 110-2)

Literature Connections
- *Get Up & Go,* Stuart J. Murphy
- *The Ten Second Race,* Diana Tomko
- *Pigs Will Be Pigs,* Amy Axelrod

*Math Center Activities 88-94
*Extend and Challenge Activity 8
*Differentiated Instruction Activities 101 through 110-2

*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

	☐ **Claim #1/DOK 1, 2, 3, 4 (circle one):**

Assessment Tasks that Provide Evidence for Claims including DOK	☐ **Claim #2/DOK 1, 2, 3, 4 (circle one):**
	☐ **Claim #3/DOK 1, 2, 3, 4 (circle one):**
	☐ **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 101 through 110-2** **Geometric Solids** **Math Folders** **Rulers** **Lesson Worksheets 101 through 110-2** **Balance** **Guided/Written Practice 101 through 110-2** **Meter stick** **Journal** **Thermometer** **Written Assessment 20 & 21** **Student Clocks** **Fact Assessment 20 & 21** **Measuring Cup** **Oral Assessment 11 Recording Form** **Student Fact Cards** **Math Palettes** **Teacher Fact Cards** **Math Center Activities** **Yardstick** **Extend and Challenge Guide** **Wrap-Ups** **Differentiated Instruction Guide** **Paper Circles** **Quarters, Dimes, Nickels, Pennies** **Geoboards** **Geobands** **Bathroom Scale**