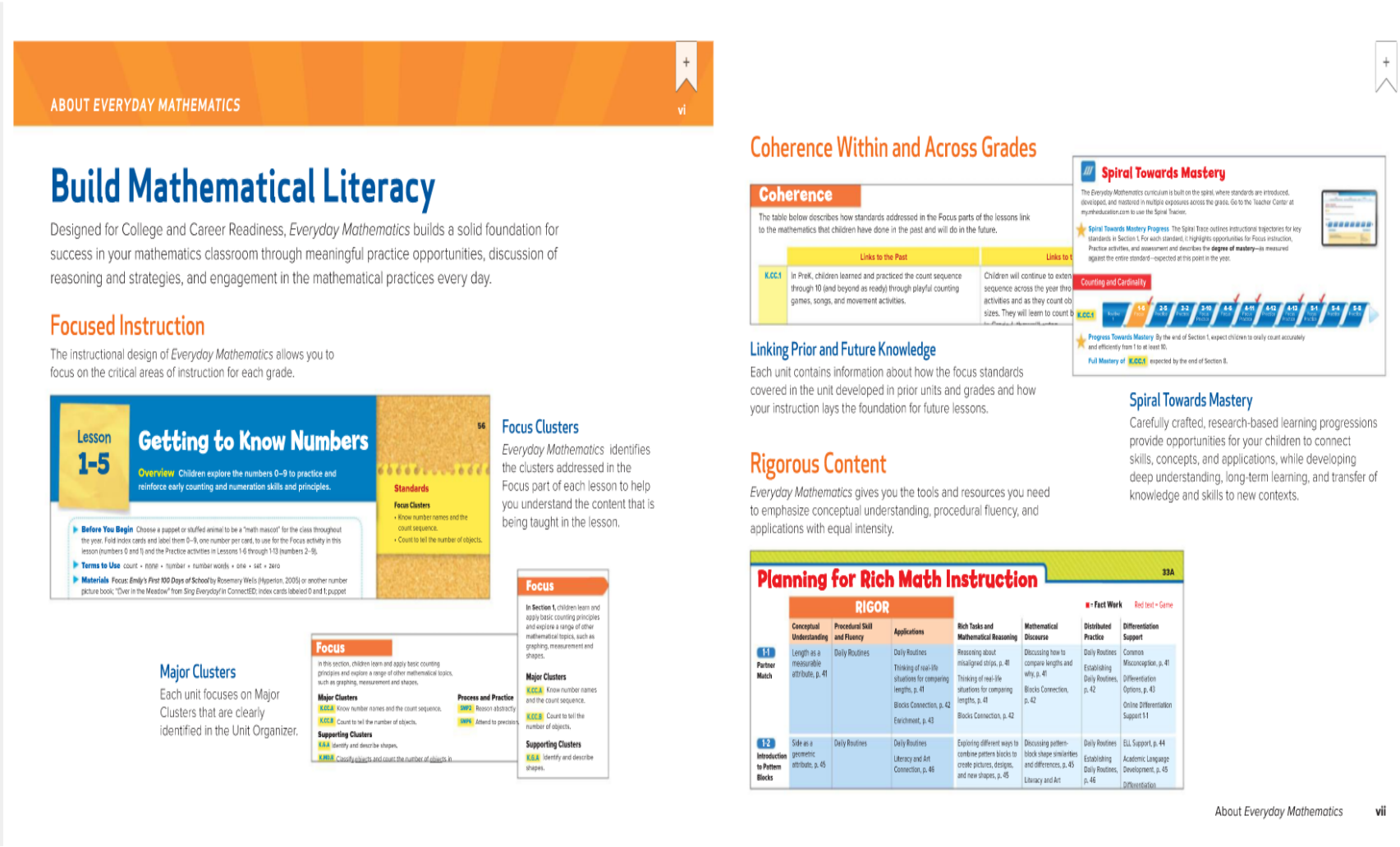
Kindergarten
Mathematics Curriculum Resource
for the Maryland College and Career Ready Standards

Everyday Mathematics 4

- EM4 strategically distributes instruction and practice in a spiral design format. Therefore, it is vital to follow the sequence of lessons and units.
- The goal is to complete four lessons per week utilizing the fifth day for reviewing concepts through EM 4 activities, differentiation, additional resources, and enrichment.
- The additional resources listed in this document are to supplement lessons for differentiation, re-teaching, or review.
- Since the program spirals, it is **not** necessary to master concepts before moving on.
- Some lessons may take more than one day. However, you should adhere to the suggested timeline for each unit in this document so that your students will be adequately prepared for on-going local assessments.
- It is required that you complete the Open Response and Reengagement lessons in each unit. These provide you with formative information which focus on the eight Standards for Mathematical Practice. Utilize PLCs for scoring and range finding.
- "My First Math Book" is a daily math student journal page or activity that reviews material on a regular basis and can be completed at any point during the day. It can provide useful ongoing assessment information.
- Games are a vital part of the program. They provide the repetition of the concepts needed for reinforcement and practice; therefore, they should be played regularly.
- It is expected to continue the routines of Math Meetings and Number Talks in addition to the EM 4 lesson components. (See the Suggested 75-minute planning template).
- The county's expectation for **Dreambox** is 5 lessons per week.

Components for Focus and Rigor

These components can be found at the beginning of each unit to focus instruction on rigorous content.



ABOUT EVERYDAY MATHEMATICS vi

Build Mathematical Literacy

Designed for College and Career Readiness, *Everyday Mathematics* builds a solid foundation for success in your mathematics classroom through meaningful practice opportunities, discussion of reasoning and strategies, and engagement in the mathematical practices every day.

Focused Instruction

The instructional design of *Everyday Mathematics* allows you to focus on the critical areas of instruction for each grade.

Lesson 1-5 **Getting to Know Numbers**

Overview Children explore the numbers 0–9 to practice and reinforce early counting and numeration skills and principles.

Before You Begin Choose a puppet or stuffed animal to be a "math mascot" for the class throughout the year. Fold index cards and label them 0–9, one number per card, to use for the Focus activity in this lesson (numbers 0 and 1) and the Practice activities in Lessons 1-6 through 1-13 (numbers 2–9).

Terms to Use count • none • number • number words • one • set • zero

Materials Focus: *Emily's First 100 Days of School* by Rosemary Wells (Hyperion, 2005) or another number picture book; "Over in the Meadow" from *Sing Everyday!* in ConnectED; index cards labeled 0 and 1; puppet

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Standards

Focus Clusters

- Know number names and the count sequence.
- Count to tell the number of objects.

Focus Clusters

Everyday Mathematics identifies the clusters addressed in the Focus part of each lesson to help you understand the content that is being taught in the lesson.

Focus

In this section, children learn and apply basic counting principles and explore a range of other mathematical topics, such as graphing, measurement and shapes.

Major Clusters

K.CC.A Know number names and the count sequence.

K.CC.B Count to tell the number of objects.

Process and Practice

SMP2 Reason abstractly

SMP6 Attend to precision

Supporting Clusters

K.G.A Identify and describe shapes.

K.MD.B Classify objects and count the number of objects in

Focus

In Section 1, children learn and apply basic counting principles and explore a range of other mathematical topics, such as graphing, measurement and shapes.

Major Clusters

K.CC.A Know number names and the count sequence.

K.CC.B Count to tell the number of objects.

Supporting Clusters

K.G.A Identify and describe shapes.

Major Clusters

Each unit focuses on Major Clusters that are clearly identified in the Unit Organizer.

Coherence Within and Across Grades

Coherence

The table below describes how standards addressed in the Focus parts of the lessons link to the mathematics that children have done in the past and will do in the future.

	Links to the Past	Links to t
K.CC.1	In PreK, children learned and practiced the count sequence through 10 (and beyond as ready) through playful counting games, songs, and movement activities.	Children will continue to exten sequence across the year thro activities and as they count ob sizes. They will learn to count b

Spiral Towards Mastery

The *Everyday Mathematics* curriculum is built on the spiral, where standards are introduced, developed, and mastered in multiple exposures across the grades. Go to the Teacher Center at myminheducation.com to use the Spiral Tracker.

Spiral Towards Mastery Progress The Spiral Trace outlines instructional trajectories for key standards in Section 1. For each standard, it highlights opportunities for Focus instruction, Practice activities, and assessment and describes the **degree of mastery**—as measured against the entire standard—expected at this point in the year.

Counting and Cardinality

K.CC.1

Progress Towards Mastery By the end of Section 1, expect children to orally count accurately and efficiently from 1 to at least 10.

Full Mastery of K.CC.1 expected by the end of Section 8.

Linking Prior and Future Knowledge

Each unit contains information about how the focus standards covered in the unit developed in prior units and grades and how your instruction lays the foundation for future lessons.

Spiral Towards Mastery

Carefully crafted, research-based learning progressions provide opportunities for your children to connect skills, concepts, and applications, while developing deep understanding, long-term learning, and transfer of knowledge and skills to new contexts.

Rigorous Content

Everyday Mathematics gives you the tools and resources you need to emphasize conceptual understanding, procedural fluency, and applications with equal intensity.

Planning for Rich Math Instruction 33A

RIGOR

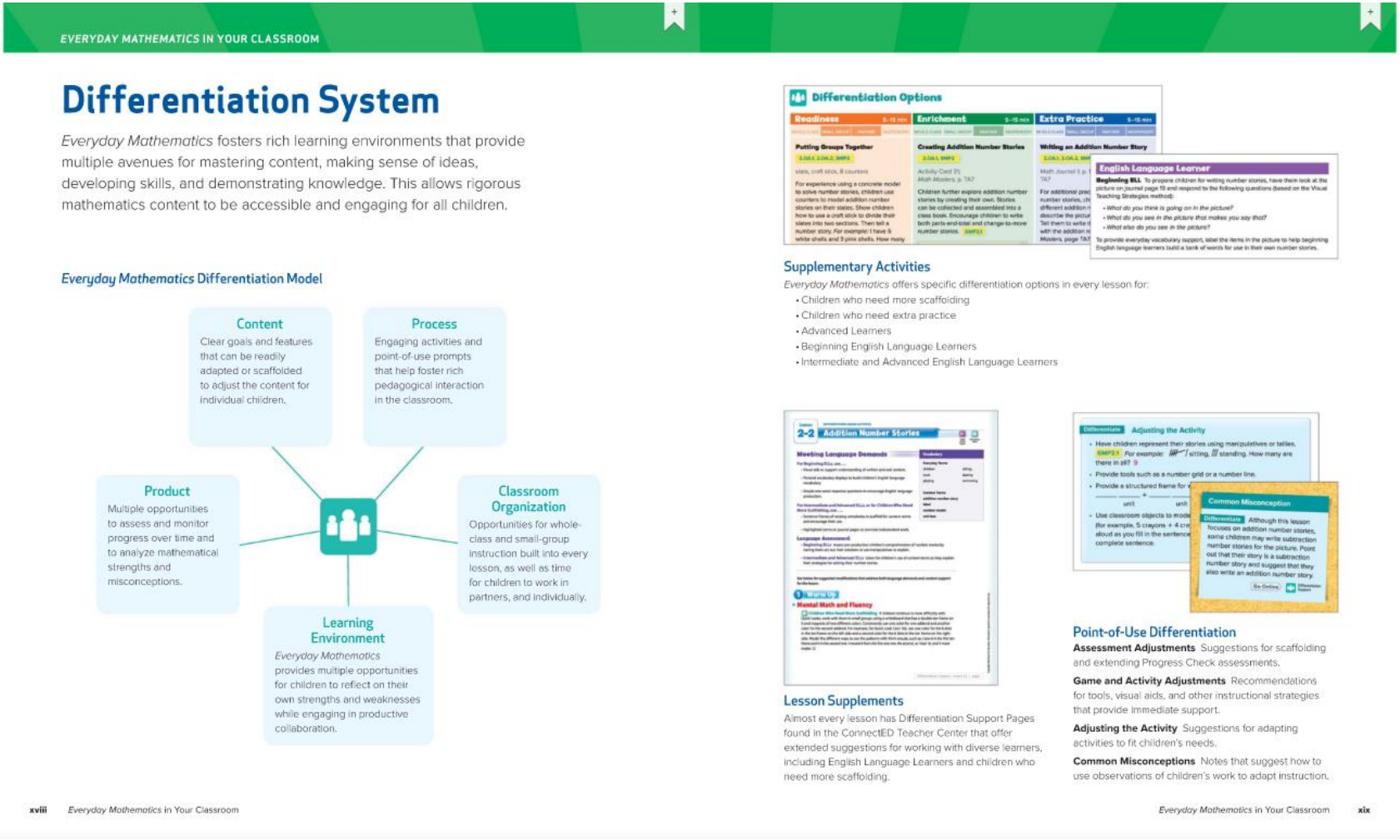
■ = Fact Work Red text = Game

	Conceptual Understanding	Procedural Skill and Fluency	Applications	Rich Tasks and Mathematical Reasoning	Mathematical Discourse	Distributed Practice	Differentiation Support
1-1 Partner Match	Length as a measurable attribute, p. 41	Daily Routines	Daily Routines Thinking of real-life situations for comparing lengths, p. 41 Blocks Connection, p. 42 Enrichment, p. 43	Reasoning about misaligned strips, p. 41 Thinking of real-life situations for comparing lengths, p. 43 Blocks Connection, p. 42	Discussing how to compare lengths and why, p. 41 Blocks Connection, p. 42	Daily Routines Establishing Daily Routines, p. 42	Common Misconception, p. 41 Differentiation Options, p. 43 Online Differentiation Support 1-1
1-2 Introduction to Pattern Blocks	Side as a geometric attribute, p. 45	Daily Routines	Daily Routines Literacy and Art Connection, p. 46	Exploring different ways to combine pattern blocks to create pictures, designs, and new shapes, p. 45	Discussing pattern-block shape similarities and differences, p. 45 Literacy and Art	Daily Routines Establishing Daily Routines, p. 46	ELL Support, p. 44 Academic Language Development, p. 45 Differentiation

About *Everyday Mathematics* vii

Components for Differentiation

These components provide instructional support within the lessons to address the needs of special populations.



Differentiation System

Everyday Mathematics fosters rich learning environments that provide multiple avenues for mastering content, making sense of ideas, developing skills, and demonstrating knowledge. This allows rigorous mathematics content to be accessible and engaging for all children.

***Everyday Mathematics* Differentiation Model**

Content
Clear goals and features that can be readily adapted or scaffolded to adjust the content for individual children.

Process
Engaging activities and point-of-use prompts that help foster rich pedagogical interaction in the classroom.

Product
Multiple opportunities to assess and monitor progress over time and to analyze mathematical strengths and misconceptions.

Classroom Organization
Opportunities for whole-class and small-group instruction built into every lesson, as well as time for children to work in partners, and individually.

Learning Environment
Everyday Mathematics provides multiple opportunities for children to reflect on their own strengths and weaknesses while engaging in productive collaboration.

Differentiation Options

Readiness | Enrichment | Extra Practice

Putting Groups Together | Creating Addition Number Stories | Writing an Addition Number Story

English Language Learner

Supplementary Activities

Everyday Mathematics offers specific differentiation options in every lesson for:

- Children who need more scaffolding
- Children who need extra practice
- Advanced Learners
- Beginning English Language Learners
- Intermediate and Advanced English Language Learners

2-2 Addition Number Stories

Lesson Supplements

Almost every lesson has Differentiation Support Pages found in the ConnectED Teacher Center that offer extended suggestions for working with diverse learners, including English Language Learners and children who need more scaffolding.

Adjusting the Activity

Common Misconception

Point-of-Use Differentiation

Assessment Adjustments Suggestions for scaffolding and extending Progress Check assessments.

Game and Activity Adjustments Recommendations for tools, visual aids, and other instructional strategies that provide immediate support.

Adjusting the Activity Suggestions for adapting activities to fit children's needs.

Common Misconceptions Notes that suggest how to use observations of children's work to adapt instruction.

Possible Flex Day Activities: Primary

"Catch Up"	If you are behind in lessons according to the At-A-Glance Planner
EM4 Materials	Activities you may have not been able to use on the day of the lesson
Google Shared Drive	Additional activities in Unit Folders
Differentiation	Reteach or enrich in small groups
Games	Review previous lessons or support the current unit
Tasks	Tackle the Task or ES9 Tasks
Fact Fluency	For Games, Assessing or Practice
Technology	Activities aligning with current unit including Braining Camp or Tang Math
Activities to Promote Independence	Written or Task Type Activities completed without support with time limits

GR K-5 Suggested Math Lesson Plan Template (75 Minute Block)

EM4 Lesson and Overview –

Standards/Objectives –

Standards for Mathematical Practice (Circle those applicable.)							
1. Students make sense of problems and persevere in solving them	2. Students reason abstractly and quantitatively	3. Students construct viable arguments and critique the reasoning of others	4. Students model with mathematics	5. Students use appropriate tools strategically	6. Students attend to precision	7. Students look for and make use of structure	8. Students look for and express regularity in repeated reasoning

**Times are approximate and may vary for each component based on lesson/skill.

Lesson Component	Time	Activities	Materials
Lesson Openers	15 min 5 min	• Math Meeting and/or Number Talk • Strategy focused basic fact discussion	Number Talk Book Quick Look Cards (K-3) Math Meeting Materials Brainingcamp Tang Word Problem Generator
	Time	EM4 Focus	Materials
Lesson Focus (Step 2) (2-4 activities) Practice (Step 3)	30 min	• Math Message • Share objective, essential questions, and success criteria • Focus Activities • Journal Pages/Tackle the Tasks • Math Boxes – Math Boxes must be completed daily to give students sufficient opportunities to review skills and concepts. • Assessment Check-In	EM4 Tackle the Task and ES9 Tasks 3 Act Tasks Student Math Journals Tang Math Nearpod Brainingcamp
Lesson Component	Time	Activities	Materials
Supplemental Support	15-20 min	• Small Group Support/DreamBox/ ST Math	EM4 Tang Math
Lesson Component	Time	Activities	
Closure	5-10 min	• Review objective(s), essential question, and success criteria. • Students reflect on their learning and the success criteria	Formative assessment in eDoctrina Exit ticket

GR K-5 Suggested Math Lesson Plan Template (75 Minute Block)

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Supplemental Support	15-20 min		
Lesson Component	Time	Activities	Materials
Closure	5-10 min		

Math Meetings

Math Meetings **must** be done 2-5 times a week. A Math Meeting gets your students thinking and ready for math class. It helps create a routine for part of the 75 minute math block.

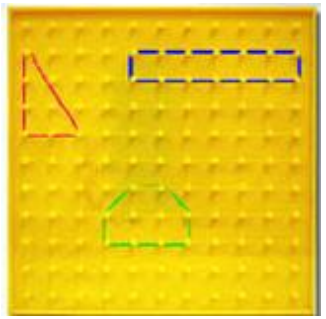
Value of Routines -

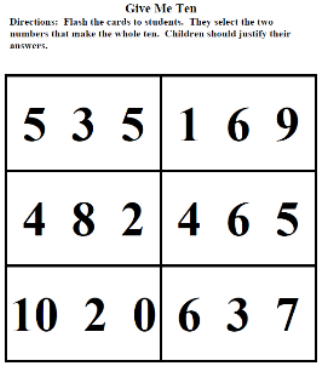
1. Bring sense of predictability and comfort to our classrooms.
2. Help with organization and classroom management and help make transitions smooth.
3. Can enhance instruction.
4. Offer access to big ideas in mathematics and allow deep understanding of math concepts.
5. Can be designed to focus on the desired math content/student needs.
6. Give students opportunities to develop expertise with the eight Standards for Mathematical Practice.

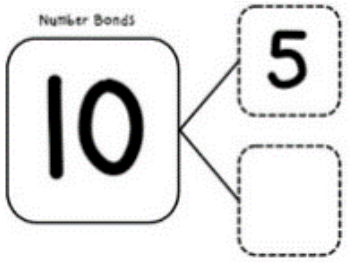
Elements of a Math Meeting:

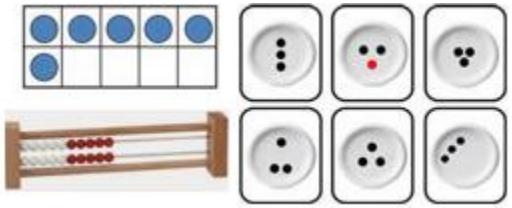
- Takes place daily unless a full Number Talk is done that day
- Is 10 - 15 minutes in duration (timer would be helpful)
- Students use whiteboards/pinch cards/templates to show responses
- Include a variety of activities based on place value, facts fluency, number sense, and problem solving
- The expectation is to complete several activities in 10-15 minutes
- Students can be brought to a common area around the teacher (or move some closer)
- Review of skills previously taught this year and earlier years (spiral)
- Add variety as the year progresses

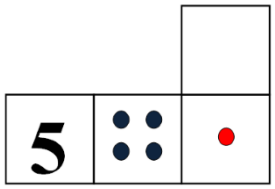
- **<u>Kindergarten Suggested Math Meeting Activities:</u>**
- Shape Flash
- One More, One Less
- Dot Cards (Subitizing)
- Rekenreks
- Five and Ten Frame Flash
- Daily Math Circle Time
- Swiper
- Domino Numbers (Matching)
- Number Bonds
- Two Out of Three Make Five Cards
- EM4 Daily Routines (pages 2-29, Teacher's Manual)

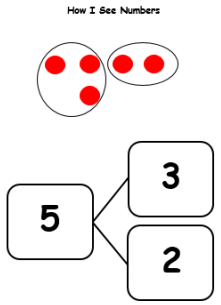




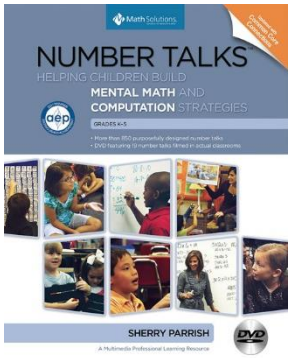








Number Talks



Number Talks **must** be done at least 2-3 times a week. The activity will take between 5 and 15 minutes. Sherry Parrish's book, *Number Talks,* provides examples that will help build students' fluency, mental math capabilities and reasoning skills. Video clips from Math Solutions can be found on the disc located in your Number Talks book.

During the Number Talk, the teacher is not the definitive authority. The teacher is the facilitator and is listening for and building on the students' natural mathematical thinking. The teacher writes a problem horizontally on the board in whole group or a small setting. The students mentally solve the problem and share with the whole group **how** they derived the answer. They must justify and defend their reasoning. The teacher simply records the students' thinking and poses extended questions to draw out deeper understanding for all.

The effectiveness of Numbers Talks depends on the routines and environment that is established by the teacher. Students must be given time to think quietly without pressure from their peers. To develop this, the teacher should establish a signal, other than a raised hand, of some sort to identify that one has a strategy to share. One way to do this is to place a finger on their chest indicating that they have one strategy to share. If they have two strategies to share, they place out two fingers on their chest and so on.

Number talks lessons often have a focus strategy such as counting on, doubles/near doubles, making tens, landmark or friendly numbers, compensation, and adding up in chunks. Providing students with a string of related problems, allows students to apply a strategy from a previous problem to subsequent problems. Some units lend themselves well to certain Number Talk topics. These mental math strategies should be applied with problems throughout daily math lessons.

Wicomico County's Fact Fluency Expectations

A substantial amount of mathematics education research shows that children do not master their math facts through memorization alone. Instead, true mastery comes from being equipped with quick and effective strategies for finding the solution. By using these strategies, children will always have the mental tools needed to find the correct answer and the confidence to use them (Boaler, 2009).

Pivotal Ideas for Numerical Fluency (Steve Leinwand)

1. All quantities are comprised of **parts and wholes** so that one understands that quantities can be put together and taken apart in a variety of ways.
2. All numbers greater than 1 can be **decomposed into small numbers**. Automaticity with decomposing the numbers 3, 4, 5 and 6 are non-negotiable and completely teachable aspects of numerical fluency. THIS ONE IS A GATEKEEPER!
3. **Acquisition of the language of the four operations** must precede the learning of facts because number sentences and equations make no sense unless grounded in situations. Accordingly, storytelling and acting out are essential strategies for developing operation sense and numerical fluency.
4. There are several **powerful properties of operations** that reduce memory load and contribute to numerical fluency.
5. **Numerical fluency requires that students talk** about how numbers relate to one another and participate in discussions of alternative approaches that students use.
6. **5 and 10 are cornerstones of numerical fluency** and play a critical role in our number system, hence the power of five frames and ten frames. Mastery of 5 + numbers, that is, 5 + 1, 5 + 2, 5 + 3, etc., is critical for developing fluency.
7. **A deep understanding that 9 and (10 – 1)** are the same number, supports numerical fluency with a range of so-called "hard" addition, subtraction, multiplication and division facts.
8. **Deep knowledge of groups of 2, 3, 5 and 10 are cornerstones to multiplication fluency.**
9. **Addition facts are a foundation for all of the rest of the operations.**
10. **Place value understanding dominates fluency with larger numbers.**

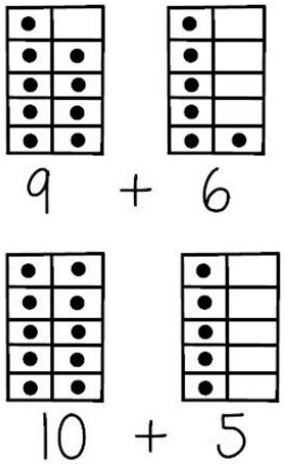
Students develop basic fact fluency through stages:

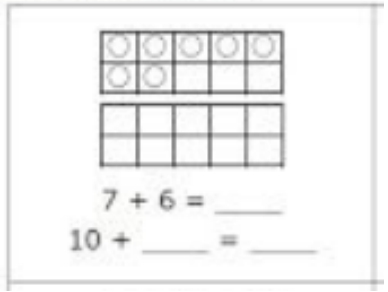
1. Introduce a strategy with concrete materials and pictorial representations.
2. Reinforcing the strategy through pictorial models and connecting it to the symbolic models.
3. Practice the strategy through a range of activities that are written and oral. This stage develops accuracy and speed of recall.
4. Extend the strategy by applying the strategy to other numbers.

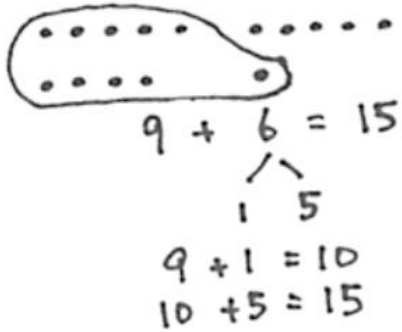
In grades K-2 stages 1 and 2 utilize subitizing cards, ten frames, and rekenreks. Then students should connect these pictorial models to a written strategy first by orally explaining and then by writing.

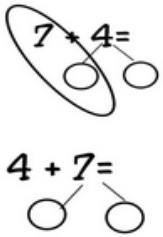
By mid-year, the focus should be on connecting to written strategies. Representations alone are not enough to demonstrate fluency.

For example: Make a Ten Strategy









If you know the sum, just write it down. If not, then find the sum by making ten.

5 + 9	7 + 4	6 + 8	8 + 4	7 + 6	9 + 4
7 + 7	3 + 8	9 + 6	8 + 3	4 + 7	6 + 9

Resources for Fluency Practice
See Chapter 4: Helping Children Master the Basic Facts in Van de Walle (K-3)
Using flashcards for purposeful practice. See Van de Walle (sorting facts, supporting a strategy)
Drill and practice which focus on strategies – See Van de Walle pg. 117
Number Talks (students discuss strategies and flexibility of numbers)
Quick Look Cards, Subitizing Cards, Ten frames, Triangle Flashcards
Games which reinforce strategies – EM 4 Games, See folder in “V” drive
Assessment – student interviews, observation, and writing prompts. Avoid timed tests and drills since they offer little insight about how flexible students are in their use of strategies or even which strategies a student selects.

FIGURE 2

Various responses to a journal prompt illustrate the strategies that first graders used and reveal which children were able to appropriately select and explain an efficient strategy for the task.

If your friend did not know the answer to 4 + 5, how could he figure it out?

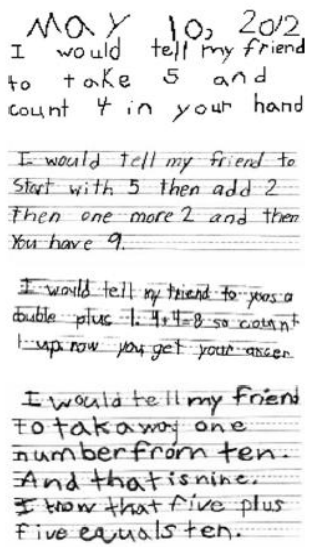


TABLE 3

This collection of prompts addresses the four components of fluency with basic facts. Writing about their strategies on a weekly basis engages students in self-reflection and monitoring, as well as emphasizes the importance of strategies in practicing basic facts.

Writing prompts for developing fluency with the basic facts

Appropriate strategy selection	Flexibility
• Explain how to use the "count on" strategy for 3 + 9. • What strategy did you use to solve 6 + 8? • A friend is having trouble with some of his times 6 facts. What strategy might you teach him? • Emily solved 6 + 8 by changing it in her mind to 4 + 10. What did she do? Is this a good strategy? Tell why or why not.	• How can you use 7 × 10 to find the answer to 7 × 9? • Solve 6 × 7 using one strategy. Now try solving it using a different strategy. • Emily solved 6 + 8 by changing it in her mind to 4 + 10. What did she do? Does this strategy always work?
Efficiency	**Accuracy**
• What strategy did you use to solve 9 + 3? • How can you use 7 × 7 to solve 7 × 8? • Which facts do you "just know"? For which facts do you use a strategy?	• Crystal explains that 6 + 7 is 12. Is she correct? Explain how you know. • What is the answer to 7 × 8? How do you know it is correct (how might you check it)?

Creative writing ideas that address several components

- Develop a "Face the facts" or "Ask Cougar" column (like Dear Abby) for the class. (Pick a fun name for the column that makes sense for the class, such as the school mascot.) Students send a letter about a tough fact. Rotate different students into the role of responder. The responder writes letters back, suggesting a strategy for the tough fact.
- Create a strategy rhyme (e.g., If times four is giving me trouble, I'll remember to double and double).
- Make a facts survival guide. Children prepare pages illustrating with visuals (e.g., ten frames or arrays) of how find "tough" facts.
- Write a yearbook entry to some facts (e.g., Dear 8 × 7, I …)

(See McIntosh 1997 for many more ideas).

Kindergarten Overview

Counting and Cardinality (CC)

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.

Operations and Algebraic Thinking (OA)

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten (NBT)

- Work with numbers 11-19 to gain foundations for place value.

Measurement and Data (MD)

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in categories.

Geometry (G)

- Identify and describe shapes.
- Analyze, compare, create, and compose shapes.

Major Cluster **Supporting Cluster** **Additional Cluster**

Standards for Mathematical Practice	
Standards	**Explanations and Examples**
1. Make sense of problems and persevere in solving them.	In first grade, students realize that doing mathematics involves solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Younger students may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, "Does this make sense?" They are willing to try other approaches.
2. Reason abstractly and quantitatively.	Younger students begin to recognize that a number represents a specific quantity. Then, they connect the quantity to written symbols. Quantitative reasoning entails creating a representation of a problem while attending to the meanings of the quantities.
3. Construct viable arguments and critique the reasoning of others.	First graders construct arguments using concrete referents, such as objects, pictures, drawings, and actions. They also practice their mathematical communication skills as they participate in mathematical discussions involving questions like "How did you get that?" "Explain your thinking," and "Why is that true?" They not only explain their own thinking, but listen to others' explanations. They decide if the explanations make sense and ask questions.
4. Model with mathematics.	In early grades, students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart or list, creating equations, etc. Students need opportunities to connect the different representations and explain the connections. They should be able to use all of these representations as needed.
5. Use appropriate tools strategically.	In first grade, students begin to consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, first graders decide it might be best to use colored chips to model an addition problem.
6. Attend to precision.	As young children begin to develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and when they explain their own reasoning.
7. Look for and make use of structure.	First graders begin to discern a pattern or structure. For instance, if students recognize *12 + 3 = 15,* then they also know *3 + 12 = 15. (Commutative property of addition.)* To add *4 + 6 + 4, the first two numbers can be added to make a ten, so 4 + 6 + 4 = 10 + 4 = 14.*
8. Look for and express regularity in repeated reasoning.	In the early grades, students notice repetitive actions in counting and computation, etc. When children have multiple opportunities to add and subtract ten and multiples of ten they notice the pattern and gain a better understanding of place value. Students continually check their work by asking themselves, "Does this make sense?"

KINDERGARTEN COMMON CORE INTRODUCTION

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

1. Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as 5 + 2 = 7 and 7 – 2 = 5. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

2. Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

The Table below is an important resource for understanding addition and subtraction structures. Problems in this format should be used on a regular basis.

Table 1 Common addition and subtraction situations[1]

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3
	Total Unknown	**Addend Unknown**	**Both Addends Unknown[2]**
Put Together/ Take Apart[3]	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 – 3 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2
	Difference Unknown	**Bigger Unknown**	**Smaller Unknown**
Compare[4]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 – 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5 – 3 = ?, ? + 3 = 5

[2]These take apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the = sign does not always mean makes or results in but always does mean is the same number as.

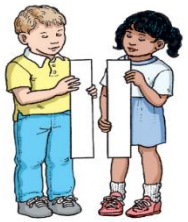
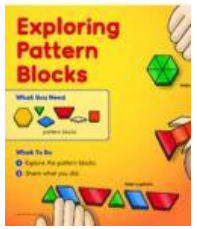
[3]Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.

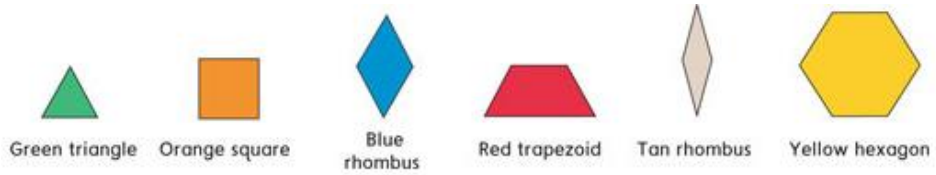
[4]For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.

Kindergarten Math At-A-Glance 2022-2023	
Sections / Suggested Dates	**Important Dates**
Section 1 **September 19– October 7 (15 Days)**	
Section 2 **October 10 – November 10 (20 Days)**	October 20 Early Dismissal October 21 MSEA Convention November 7 Early Dismissal November 8 General Election
Section 3 **November 11 – December 13 (20 Days)**	November 23 – 25 Thanksgiving
Section 4 **December 14 – January 25 (20 Days)**	December 19 – December 30 Winter Holiday January 16 MLK Day
Section 5 **January 26 –February 27 (20 Days)**	January 30 Professional Day February 17 Early Dismissal February 20 President's Day
Section 6 **February 28 – March 28 (20 Days)**	March 17 Early Dismissal
Section 7 – **March 29 – May 1 (20 Days)**	April 4 Early Dismissal April 6 – 10 Spring Holiday
Section 8 **May 2 – May 26 (19 Days)**	May 29 Memorial Day
Section 9 **May 30 – End of Year**	May 30 Memorial Day June 12,13,14 Early dismissal for students

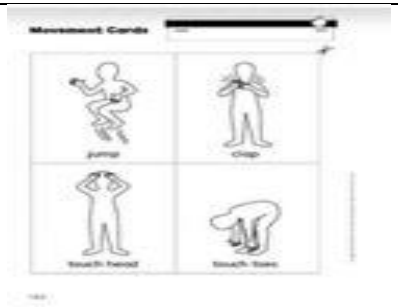
Kindergarten Math Standards	Sections								
The following standards will appear in the Curriculum Document in the Sections as marked.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
K.CC.A.1 **Count to 100 by ones and tens.**	X		X	X	X		X	X	X
K.CC.A.2 **Count forward beginning from a given number.**	X	X	X	X	X		X	X	X
K.CC.A.3 **Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.**	X	X	X	X	X	X	X	X	X
K.CC.B.4 **a. When counting objects say the number names in the standard order. (K.CC.4.B.a)** **b. Understand that the last number name said tells the number of objects counted. (K.CC.4.B.b)** **c. Understand that each successive number name refers to a quantity that is one larger. (K.CC.4.B.c)**	X	X	X						
K.CC.B.5 **Count to answer "How many?" questions about as many as 20 things.**	X	X	X	X	X	X	X	X	X
K.CC.C.6 **Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.**	X	X	X	X	X	X	X		X
K.CC.C.7 **Compare two numbers between 1 and 10 presented as written numerals.**			X	X	X	X	X	X	X
K.OA.A.1 **Represent addition and subtraction.**		X	X		X	X	X	X	X
K.OA.A.2 **Solve addition and subtraction word problems within 10.**		X			X	X	X	X	X
K.OA.A.3 **Decompose numbers less than or equal to 10 into pairs in more than one way using objects.**	X	X	X	X	X	X	X	X	X
K.OA.A.4 **For any number from 1-9, find the number that makes 10 when added to the given number.**			X	X	X	X		X	X
K.OA.A.5 **Fluently add and subtract within 5.**	X			X			X	X	X

Kindergarten Math Standards	Sections								
The following standards will appear in the Curriculum Document in the Sections as marked.	1	2	3	4	5	6	7	8	9
Kindergarten Math Standards	**Sections**								
The following standards will appear in the Curriculum Document in the Sections as marked.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
K.NBT.A.1 **Compose and decompose numbers from 11-19.**					X		X	X	
K.MD.A.1 **Describe measurable attributes of objects.**	X	X	X	X	X	X	X		X
K.MD.A.2 **Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	X		X	X	X	X	X	X	X
K.MD.B.3 **Classify objects into given categories, count the number of objects, and sort categories by count.**	X	X	X	X		X	X		X
K.G.A.1 **Describe objects in the environment using names of shapes & positions.**	X	X	X	X	X	X	X	X	X
K.G.A.2 **Correctly names shapes regardless of orientation or size.**	X	X	X	X	X	X	X	X	X
K.G.A.3 **Identify shapes as two-dimensional or three-dimensional.**						X	X	X	X
K.G.B.4 **Analyze and compare two and three dimensional shapes.**	X	X	X	X	X	X	X	X	
K.G.B.5 **Model shapes in the world by building shapes from components.**			X		X			X	X
K.G.B.6 **Compose simple shapes to form larger shapes.**	X			X	X			X	X

Kindergarten Section One	
Connections/Notes	**Additional Resources**
Administer Beginning-of-Year Assessment (Optional) It is suggested you conduct this assessment during Section 1 to evaluate student's skills and understandings. See the *Assessment Handbook* for the tasks and record keeping tools.	
Lesson 1-1 Partner Match **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children compare lengths and explain their mathematical thinking as they participate in a social activity. **K.MD.A.1 & K.MD.A.2** Students will use strips of heavy paper or cardstock that are cut into matching-length pairs to discuss "length" and compare. They can also use blocks to build structures of the same length or height. 	**Common Core Math in Action Grade K*-All About Us pg.101, Veggi-Table pg.102 *EM4 Resources for the Kindergarten Classroom-Measuring and Comparing Shadows pg. 22 
Lesson 1-2 Introduction to Pattern Blocks **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.** **K.G.B.6 Compose simple shapes to form larger shapes.**	
Children use shape names as they explore pattern blocks. **K.G.A.2, K.G.B.4, & K.G.B.6 Give each child a handful of pattern blocks** (10–15 blocks) and a placemat, cookie sheet, or sheet of paper for their workspace. Explain that these are called **pattern blocks**, and ask children why they think they have that name. Circulate as you provide time for exploration and conversation. **After children have had time to explore the blocks**, introduce the six pattern blocks: green **triangle**, orange **square**, blue **rhombus**, red **trapezoid**, tan **rhombus**, and yellow **hexagon.** Have children find blocks that match the ones you hold up. For example, as you show the triangle, say: *If you have a green triangle, hold it up.* Have children repeat the word *triangle* in unison. Then hold up the trapezoid and ask: *Who has a red trapezoid? Can you say trapezoid?* Continue to lead children in finding and naming the	 *Literature connection: *Changes, Changes* by Pat Hutchins a wordless picture book in which a clown uses blocks to make different structures. Students can name and describe the shapes that they see.

<table>
<tr><th colspan="2">Kindergarten Section One</th></tr>
<tr><th>Connections/Notes</th><th>Additional Resources</th></tr>
<tr><td>shapes until you have identified all the pattern blocks. Pose questions that help children focus on the shapes, such as:
• How many sides does the square have?
• Name or point to another shape with four sides.
• Do all the shapes with four sides look the same?
• Name or point to another shape with a different number of sides.
Introduce the term side by having children trace each side of a shape with their fingers and count how many sides there are. GMP6.3, GMP7.1
 

Last, allow students to combine the blocks to create pictures, designs, patterns, or new shapes.</td><td></td></tr>
<tr><td colspan="2">Lesson 1-3 Gotcha: A Counting Game
K.CC.B.4 When counting objects say the number names in the standard order.
Understand that the last number name said tells the number of objects counted.
Understand that each successive number name refers to a quantity that is one larger.
K.CC.B.5 Count to answer “How many?” questions about as many as 20 things.</td></tr>
<tr><td>Children use one-to-one correspondence and the cardinal principle as they engage in a counting game.

K.CC.B.4 Students will count to find how many things are in a set, or group of objects.
K.CC.B.5 Teach children how to play Gotcha—a game in which children "catch" you making counting mistakes, such as:
• Saying the number words in the wrong order.
• Not saying one number word for each object you point to.
• Saying the wrong number for the total of the set (for example: 1, 2, 3, 4; that's 3 objects!).
Have children signal with "thumbs-up" if you are counting correctly and switch to "thumbs-down" when you make a mistake. Each time you make an error, have a child explain your mistake and model correct counting.</td><td>  </td></tr>
<tr><td colspan="2">Lesson 1-4 Number Walk
K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.</td></tr>
</table>

<table>
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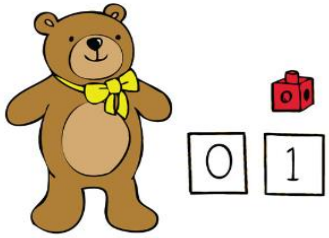
<tr><td>Children take a walk to look for numbers and explore the many uses of numbers in their world.

K.CC.A.3 On chart paper make a list of numbers students see each day (0-20). Take a number walk. As you walk, encourage children to look for numbers on signs, cars, buildings, and so on. Ask questions such as the following and support children with numeral recognition:
• What is the name of that number? How would you describe the way it looks?
• Why do you think those numbers are on the clock (sign, license plate, and so on)? GMP4.1
• Where else have you seen that number?</td><td>*Literature connection: City by Numbers by Stephen T Johnson-book about finding numeral shapes in pictures of everyday objects and settings.

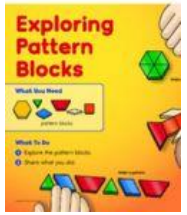
*Writing Numbers Poster with Dot Patterns in Kindergarten Resources folder, Section 1

*Spin a Number EM game (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 1-5 Getting to Know Numbers
K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.
K.CC.B.4 When counting objects say the number names in the standard order.
Understand that the last number name said tells the number of objects counted.
Understand that each successive number name refers to a quantity that is one larger.
K.CC.B.5 Count to answer “How many?” questions about as many as 20 things.</td></tr>
<tr><td>Children explore the numbers 0-9 to practice and reinforce early counting and numeration skills and principles.

K.CC.A.3, K.CC.B.4, & K.CC.B.5 Use a read aloud, such as Emily’s First 100 Days of School by Rosemary Wells to discuss numbers. This lesson focuses on the numbers 0 and 1. Have the students write and represent the numbers by movement, speaking, counting cubes, etc. Also use music (Sing Everyday! In EM4) to practice counting.
Practice: Getting to know numbers (0,1)

A “one-more” display</td><td> 

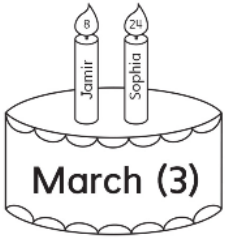
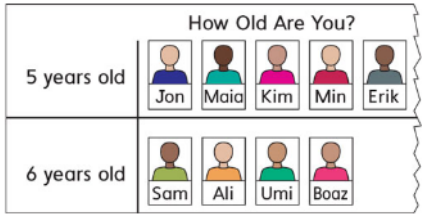
 

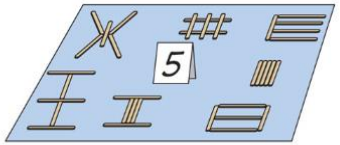
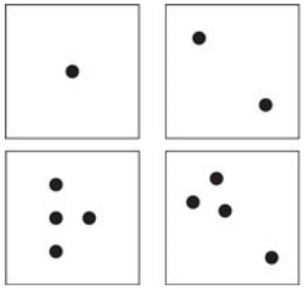
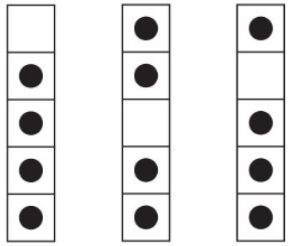
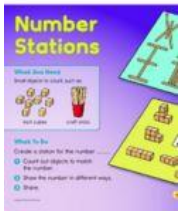
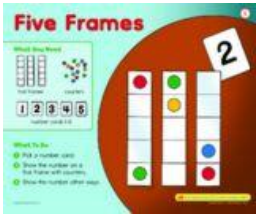
*Literature connection: Emily’s First 100 Days of School by Rosemary Wells- also on Book-Flix

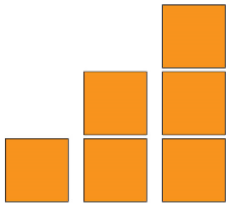
*Common Core Math in Action Grade K-Fill the Plates pg. 23, Touch and Count pg. 23

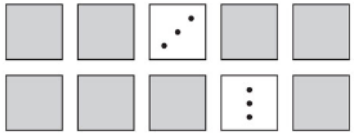
*Spin a Number EM game (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 1-6 Count and Sit (game)
K.CC.A.1 Count to 100 by ones and tens.
K.CC.A.2 Count forward beginning from a given number.</td></tr>
</table>

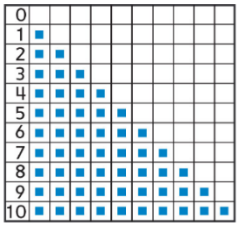
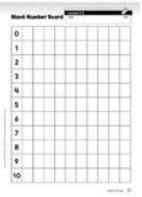
Kindergarten Section One	
Connections/Notes	**Additional Resources**
Children play an active counting game to develop their oral counting skills, including counting on. **Have children stand in a circle** to play *Count and Sit.* Explain that for today's game, your starting number is 1 and your target number is 10. Begin counting with 1 and go around the circle with each child saying the next number in sequence. To help children keep track of who says the next number, you may want to have children pass your math mascot or a beanbag to the next child after they say their number. The child who says the target number (10) sits down and the count begins again at 1. The seated child is skipped as the count continues around the circle. Another child sits each time the target number is reached. Keep counting until all children are sitting. Children who are sitting may enjoy trying to figure out who will be the last person standing. Play often in spare moments, making the game more challenging as children are ready. Practice: Getting to know numbers (2)	*Spin a Number EM game (ConnectED)
Lesson 1-7 Class Birthdays and Lesson 1-8 Class Age Graph **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	
In lesson 1-7, children count, compare, and represent data about their birthday months. **K.CC.B.4 & K.CC.B.5** Students will count the number of birthdays in given months. **K.CC.B.6** Students will compare the birthdays in different months. **K.MD.B.3** Students will sort their birthdays in the correct months and count them in each month. Practice: Getting to know numbers (3)	*EM4 Resources for the Kindergarten Classroom-Graphing Features, Favorites and Other Data, pg. 25 *Spin a Number EM game (ConnectED)

Kindergarten Section One	
Connections/Notes	**Additional Resources**
 Children sort their candles by month and place them on the correct cake. • *Are there **more** birthdays in April or May? How did you figure that out? Can you figure out how many more?* (Help children compare the number of candles in different months by lining up candles from different cakes to allow for direct matching.) • *Which month has **fewer** birthdays, January or February? How do you know?* • *Are there any months that have **zero** birthdays? Which ones?* • *Which month has the **most** birthdays? The **fewest** birthdays? How do you know?* • *How will the cakes make it easier to remember the birthdays in our class? How might we use this information during the year?* **GMP4.1**, **GMP4.2** In lesson 1-8, children create concrete and paper graphs showing their ages, and use them to answer counting and comparison questions. Practice: Getting to know numbers (4) Use the graph as the basis for the following activities: **GMP4.2** • Count aloud the number of children in each age group as you point to each card. (Restate the total and gesture to the whole group to reinforce the cardinal principle.) • Compare the number of children in different age groups. Ask: *Which age has more (the most) children? How many more 5-year olds are there than 6-year olds?* • Ask: *What will happen to our graph when a child has a birthday? How many 5-year-olds and 6-year-olds will there be then?* 	**Common Core Math in Action Grade K*-Feet to Feet pg. 26, London Bridges pg. 25 *Literature connection: *When I Was Five* by Arthur Howard

Kindergarten Section One	
Connections/Notes	**Additional Resources**
Lesson 1-9 Number Stations, Lesson 1-10 Quick Look Cards, and Lesson 1-11 Five Frames **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.5 Fluently add and subtract within 5.**	
In lesson 1-9 children count out objects to represent 5 in multiple ways, and informally explore addition and subtraction within 5. Practice: Getting to know numbers (5)  Number Station for 5  In Lesson 1-10, children compose and decompose numbers and explore addition by looking at dots in different arrangements. Practice: Getting to know numbers (6) In lesson 1-11, Children use a five frame to compose numbers in various ways and informally explore addition and subtraction within 5. Practice: Getting to know numbers (7) 	 *Fluency number talk activities-*Number Talk* pg. 68-96 *Literature connections: "*Five Little Chicks"* by Nancy Tafuri, "*Five Little Firefighters"* by Thomas Graham, "Five Green and Speckled Frogs" (Sing Everyday! in ConnectED)  *Five Frame Subitizing Activity in Kindergarten Resources folder, Section 1 *Domino Parking Lot to Five Activity in Kindergarten Resources folder, Section 1 *Roll and Record EM game (ConnectED) *Spin a Number EM game (ConnectED)
Lesson 1-12 Describing Shapes **K.G.B.4 Analyze and compare two and three dimensional shapes.**	

Kindergarten Section One	
Connections/Notes	**Additional Resources**
Children use informal language to describe, compare, and contrast a variety of shapes. K.G.B.4 Show shape cards and students will describe the shape. As children share, make a list of the descriptive terms they use, adding quick sketches to illustrate each term. Probe to elicit terms such as *curve/curvy, round, straight, line, side, corner, pointy, fat, wide, narrow, open*, and *closed.* Think aloud to model detailed descriptions. For example, you might say: *I noticed this shape is round here, but straight there.* Together create a list of terms that children can use now and in the future to describe shapes in detail. Gradually you will build from children's natural, informal language to introduce more formal terms such as vertex and angle. Practice: Getting to know numbers (8)	
Lesson 1-13 Shape Patterns **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.**	
Children identify and describe shapes in the context of repeating and growing patterns. K.G.A.1 & K.G.A.2– Students will describe shapes you hold up. Discuss the term **pattern**. Make patterns and discuss **repeating patterns** and **growing patterns**.  A repeating pattern  A growing pattern Practice: Getting to know numbers (9)	  *B-I-N-G-O song (see Sing Everyday! In ConnectED) *Literature connection: *Pattern Fish* by Trudy Harris **Pattern Fish* lesson plan pgs. 50-53 (*Grades K-1 Math and Literature* by Marilyn Burns and Stephanie Sheffield)

Kindergarten Section Two	
Connections/Notes	**Resources**
Lesson 2-1 *Match Up with Dot Cards* and Lesson 2-2 *Top-It with Dot Cards* (games) **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.**	
In lesson 2-1, children play a matching game with Dot Cards to practice recognizing equal quantities in different arrangements.  A matching pair Practice: Comparing Collections (bags from lessons 1-5 through 1-13) In lesson 2-2, children play a game with Dot Cards to practice counting and comparing sets. Practice: Describing and Comparing Shapes **K.CC.B.4** Count the number of dots on a card. **K.CC.B.5** Play *Match up* – each card has the same number of dots. **K.CC.C.6** In *Top-It*, students compare 2 dot cards (greater than, equal to)	2.1  2.2  *Literature connection: *Ten Black Dots* by Donald Crews **Ten Black Dots* lesson plan pgs. 92-97 (*Grades K-1 Math and Literature* by Marilyn Burns and Stephanie Sheffield) *Domino Parking Lot to 5 or 10 Activity in Kindergarten Resources folder, Section 2 *One to One on the Table Activity pg. 27 (*Common Core Math in Action Grade K*) *Top It- EM game (ConnectED)
Lesson 2-3 Getting to Know Triangles **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	

Kindergarten Section Two	
Connections/Notes	**Resources**
	Children examine, describe, and compare a variety of triangles and create a triangle collage. K.G.A.1 Students will make a class triangle collage or group collages. K.G.A.2 Identify the triangle. Discuss **side** (straight or curved) and **vertex**. K.G.B.4 Identify 2D and 3D shapes when making the class collage. Practice: Playing *Gotcha*	*The Greedy Triangle by Marilyn Burns
Lesson 2-4 Number Board and Lesson 2-6 How Many Now? **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	
In lesson 2-4, children make Number Boards to reinforce counting skills and principles and visualize the "one more" counting pattern.  Number Board, 0–10 K.CC.A.3 Make a number board to show 0-10. K.CC.B.4 Count on the number board. Discuss the pattern they see. Practice: Taking Quick Looks at Dot Patterns and Five Frames In Lesson 2-6, children determine the number of objects in a set when one object is added. K.CC.A.2 Students will count forward using word problems and visual aids. Practice: Playing *Match Up* and *Top It* with Dot Cards	2.4   2.6  *Roll and Record EM game (ConnectED)

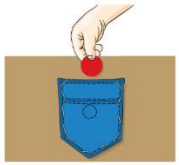
<table>
<tr><th colspan="2">Kindergarten Section Two</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td></td><td>*Fiddle Sticks Activity in Kindergarten Resources folder, Section 2

*"One Man Went to Mow"- song (see Sing Everyday! in ConnectED)

*Dot Cards to 10 in Kindergarten Resources Folder, Section 2

*Spin a Number EM game (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 2-5 Pocket Problems
K.OA.A.1 Represent addition and subtraction.
K.OA.A.2 Solve addition and subtraction word problems within 10.</td></tr>
<tr><td>Children use concrete, nonverbal experiences to develop their understanding of addition and subtraction.

K.OA.A.1 & K.OA.A.2 Students will use 10 counters to represent and solve pocket problems.

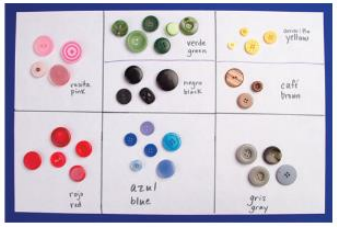
Practice: Playing Count and Sit
  </td><td>*Literature connection-A Pocket for Corduroy by Don Freeman

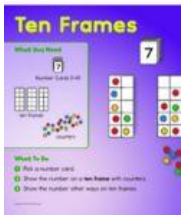
*Dog with 10 Spots Activity in Kindergarten Resources folder, Section 2

*Any math mat would work to provide additional opportunities to solve problems

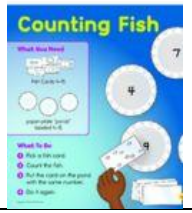
*Roll and Record EM game (ConnectED)

*Top It EM game (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 2-7 Introduction to Sorting (Open Response and Reengagement – 2 days)
K.MD.A1 Describe measurable attributes of objects.
K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.</td></tr>
</table>

Kindergarten Section Two	
Connections/Notes	**Resources**
Day 1: Children sort and classify objects in different ways. Day 2: Children compare, analyze, and discuss a variety of sorted collections they created. K.MD.A.1 Students will look at crayons or markers and tell what they notice about the object (color, size, shape, texture, or material). K.MD.B.3 Students will show how objects are the **same** and **different**. They will sort their objects into categories and be able to describe how they sorted them, determine the rule, and how are they alike/different. Sorting by color **example**: Practice: Creating Patterns with Pattern Blocks 	Day 2  
Lesson 2-8 Getting to Know Circles **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	
Children examine, describe, and compare circles and create a circle collage.  K.G.A.1 Students will make a class circle collage or group collages. K.G.A.2 Identify the circle. Discuss **sides** (straight, curved, or round) and **vertices**. K.G.B.4 Identify 2D shapes when making the class collage and using the 2D shapes poster. Practice: Using Five Frames	*Literature connection-read "round" section of *Round is a Mooncake* by Rosanne Thong *Five frame mat activities *Five Frame Tell About Activity 2.13 pg. 46 (*Teaching Student Centered Mathematics* by Van de Walle and Lovin)
Lesson 2-9 Ten Frames **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.**	

Kindergarten Section Two	
Connections/Notes	**Resources**
K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.	
Children compose and decompose numbers in various ways on a ten frame and informally explore addition and subtraction. **K.OA.A.4** Students will use ten frames to represent numbers with counters. They will show different ways to make a number. Practice: Solving Pocket Problems	 *Giant Double Ten Frame Activity pgs. 64-65 (*Common Core Math in Action Grade K*) *Hide the Cubes Activity in Kindergarten Resources folder, Section 2 *Ten frame Activities in Kindergarten Resources folder, Section 2 *"*Ten in the Bed*" song (see Sing Everyday! in ConnectED) *Spin a Number EM game (ConnectED)
Lesson 2-10 Counting Collections **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	
	Children practice counting collections in different arrangements. **K.CC.B.4 & K.CC.B.5** Students will learn the terms "**lined up**" and "**scattered**" when counting. See lesson for various ways to practice. Practice: Sorting Collections	*Literature connection-*Ten Little Fish* by Audrey Wood

<table>
<tr><th colspan="2">Kindergarten Section Two</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td></td><td>*Ten Little Fish Activity - pg. 34 (Common Core Math in Action Grade K)

*Fish Out of Water Counting Activity in Kindergarten Resources folder, Section 2</td></tr>
<tr><td colspan="2">Lesson 2-11 Getting to Know Rectangles
K.G.A.1 Describe objects in the environment using names of shapes & positions.
K.G.A.2 Correctly names shapes regardless of orientation or size.
K.G.B.4 Analyze and compare two and three dimensional shapes.</td></tr>
<tr><td> 
A rectangle collage

Children explore rectangles and create a rectangle collage.

K.G.A.1 Students will make a class rectangle collage or group collages.
K.G.A.2 Identify the rectangle and the square. Discuss sides (straight, curved, or round) and vertices.
K.G.B.4 Identify 2D shapes when making the class collage and using the 2D shapes poster.
Practice: Playing How Many Now?</td><td> 

*Music connection-rectangle section of Round is a Mooncake by Rosanne Thong</td></tr>
<tr><td colspan="2">Lesson 2-12 Number Stories and Lesson 2-13 More Number Stories
K.OA.A.1 Represent addition and subtraction.
K.OA.A.2 Solve addition and subtraction word problems within 10.</td></tr>
</table>

Kindergarten Section Two

Connections/Notes

In lesson 2-12, children invent and solve different types of number stories using a variety of strategies.

In lesson 2-13, children begin to solve number stories with unknown changes and starts.

K.OA.A.1 & K.OA.A.2 Students will use efficient strategies to solve number stories within 10.

- Davon was snack helper today. He carried 3 apples to the table. Then he got 2 more apples. How many apples does Davon have now? (change-to-more problem)
- Marcos and Hazel made a block tower that was 5 blocks high. The top block fell off. How many blocks high is the tower now? (change-to-less problem)
- This morning some squirrels were playing in my yard. 4 squirrels were in a tree and 2 were burying acorns. How many squirrels were there in all? (parts-and-total problem)

Children might use simple drawings to model and solve number stories.

Direct Modeling	Counting	Applied Facts
Using concrete objects, fingers, or drawings to model the situation.	Counting on or counting back, perhaps using fingers to keep track of a count.	Using a known math fact, such as 2 + 3 = 5.

Practice: 2-12 Revisiting Shape Collages

Practice: 2-13 Creating Number Stations for 10 

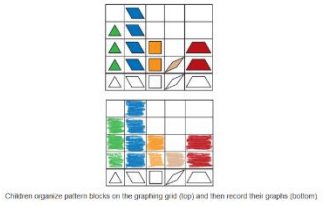
Resources

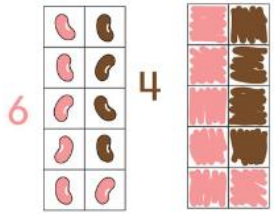
*Additional add to and take from, result unknown problems are available in *Problem Solving with Math Models* By Dr. Nicki Newton pgs. 6-43.

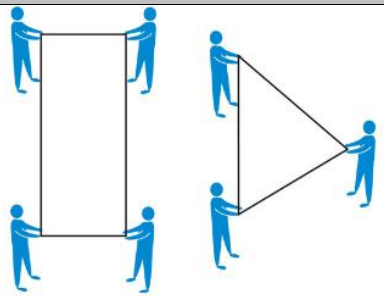
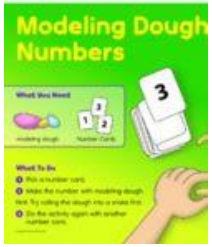
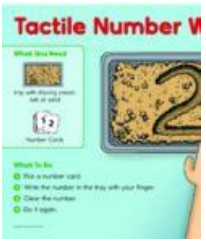
*Train Game EM game (ConnectED)

*Pumpkin math mat in Kindergarten Resources folder, Section 2

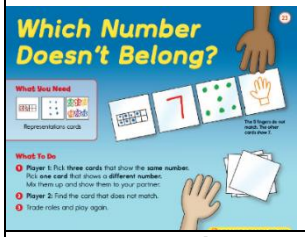
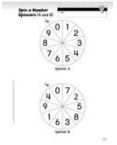
*Hide the Cubes Activity in Kindergarten Resources folder, Section 2

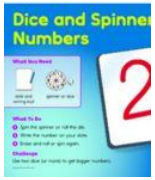
Kindergarten Section Three	
Connections/Notes	**Resources**
Lesson 3-1 Pattern-Block Graph **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	
 Children organize pattern blocks on the graphing grid (top) and then record their graphs (bottom). Children sort, count, compare, and graph pattern blocks by shape. **K.CC.C.6** Have students answer questions using pattern blocks such as *"How can we find out which shape has the **most**? The **least**?"* **K.MD.B.3** Students will sort, count, and graph how many of each shape they have. Practice: Playing Match Up with Dot and Number Cards	 *Game: Match Up with Dot and Number cards *Skittles sorting and graphing in Section 3 of Resource document *Additional activities for **K.MD.B.3** can be found: pgs. 105-107 (*Common Core Math in Action Grade K*)
Lesson 3-2 Ten-Bean Spill **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.**	

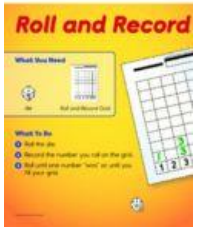
Kindergarten Section Three	
Connections/Notes	**Resources**
Children use ten frames to explore number pairs that add to 10. **K.OA.A.4** Students will use ten frames to represent numbers with beans. They will show different ways to make a number. Practice: Playing Count and Sit  Children who are ready can write numerals next to each ten frame to show how many beans are in each group.	 *Literature connection: *Ten Flashing Fireflies* by Philemon Sturges. Lesson on pg. 33 (*Common Core Math in Action Grade K*), 98-104 (*Grades K-1 Math and Literature* by Marilyn Burns and Stephanie Sheffield) *Hide the Cubes Activity in Kindergarten Resources folder, Section 3 *Ten Frame Activities in Kindergarten Resources folder, Section 3
Lesson 3-3 Rope Shapes **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.** **K.G.B.5 Model shapes in the world by building shapes from components.**	

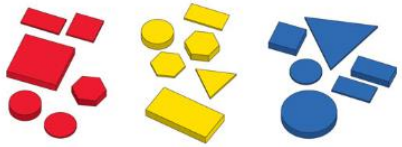
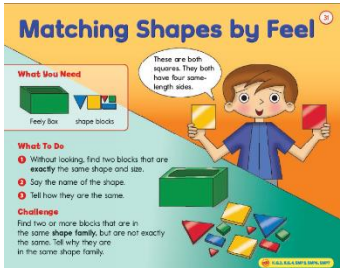
Kindergarten Section Three	
Connections/Notes	**Resources**
 Rope shapes Children participate in a cooperative movement activity to deepen their understanding of shapes. They will make triangles, rectangles, squares, and circles. Practice: Solving Pocket Problems	 *Literature connection-*When a Line Bends…A Shape Begins* by Rhonda Gowler Greene **When a Line Bends*…Lesson on pgs.123-126 (*Grades K-1 Math and Literature* by Marilyn Burns and Stephanie Sheffield)
Lesson 3-4 Number Books **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	
Children write and represent numbers as they begin to make individual number books. **K.CC.A.3** – Students will write numbers 1 and 2. (verses 1 and 2 of "The Numeral Song") Practice: Counting collections of objects 0-20	  *Fish Out of Water Counting Activity in Kindergarten Resources folder, Section 3 *Additional number writing activities found on pgs. 19-20 (*Common Core Math in Action Grade K)*

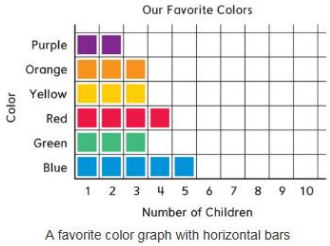
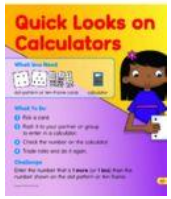
Kindergarten Section Three	
Connections/Notes	**Resources**
Lesson 3-5 Longer or Shorter? **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children compare and describe objects of varying lengths. K.MD.A.1 Students will sorting objects by **longer** and **shorter**. They will discuss the word **"length"**. K.MD.A.2 Students will compare objects and sort them in shorter/longer trays. They will explain their thinking how the lengths can be compared. Practice: Writing Numbers 3 and 4 (verses 3 and 4 of "The Numeral Song")	 *All About Us Measurement Activity-pg.101 (*Common Core Math in Action Grade K*) *Literature connections*: Where's My Teddy? by Jez Alborough* *Is a Blue Whale the Biggest Thing There Is?* by Robert E. Wells
Lesson 3-6 Obstacle Course Positions **K.G.A.1 Describe objects in the environment using names of shapes & positions.**	
Children use positional language to follow and give directions for an obstacle course. K.G.A.1 They will first practice with blocks to learn the positional vocabulary such as: *Place the block below your foot*. Next, they will model spatial relationships with their bodies. Last, they will move through an obstacle course using positional words. Practice: Writing Numbers 5 and 6 (verses 5 and 6 of "The Numeral Song")	*Literature connections-*Rosie's Walk* by Pat Hutchins (also on BookFlix) *Back to Back Pattern Blocks Activity pg. 136 (*Common Core Math in Action Grade K*) *Writing numbers activities *Music Connections: "Sing and Act Out", "Teddy Bear Positions", and "Go In and Out of the Circle" (Sing Everyday! ConnectED)

Kindergarten Section Three	
Connections/Notes	**Resources**
Lesson 3-7 Comparing Representations (Open Response and Reengagement – 2 days) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.**	
Day 1: Children create matching representations for a number between 5 and 10. **K.CC.A.3** Students will show various ways to represent a given number between 5 and 10.  Day 2: Children discuss and analyze different representations of numbers they created. **K.CC.B.5 & K.CC.C.6** Students will discuss and review their representations of their number. They will look for misconceptions. Practice: Writing Numbers 7, 8 and 9 (verses 7, 8, and 9 of "The Numeral Song")	
Lesson 3-8 *Spin a Number (game),* Lesson 3-9 Line Up, and Lesson 3-13 Numbers on Slates **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.5 Count to answer "How many?" questions about as many as 20 things.**	
 In lesson 3-8, children practice numeral recognition, counting, and one-to-one correspondence as they play a game. Practice: Writing numbers 0 and 10 (verses 0 and 10 of "The Numeral Song")  Children work together to sequence number cards.	3-8 Spin a Number   *also EM game (ConnectED)

Kindergarten Section Three	
Connections/Notes	**Resources**
In lesson 3-9, children represent how successive numbers refer to quantities that are one larger (*the successor function*) in various ways. Practice: Exploring Ten Frames In lesson 3-13, children practice number writing and other numeration skills and establish routines for working with slates. Practice: Following Positional Language Directions	3-9 Beat the Timer-putting numbers in order  *also EM game (ConnectED) 3-13 
Lesson 3-10 Number-Card Activities **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	
Children use number cards to practice numeral recognition, sequencing numbers, and matching sets and numerals. Practice: Finding Longer and Shorter Objects	
Lesson 3-11 *Roll and Record* (game) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.4 When counting objects say the number names in the standard order.** **Understand that the last number name said tells the number of objects counted.** **Understand that each successive number name refers to a quantity that is one larger.**	

Kindergarten Section Three	
Connections/Notes	**Resources**
K.CC.B.5 Count to answer "How many?" questions about as many as 20 things. **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.**	
Children roll dice and record rolls to practice counting and number writing and to explore probability informally. **K.CC.A.3 & K.CC.B.4** **Give each child** one die and a *Roll and Record* grid. Direct them to roll the die, count or recognize (subitize) the number of dots, and write the number in the first open box above that number on their grids. Have children continue rolling and recording until one column is filled. **GMP2.1** Have them circle the number that reaches the top first. Circulate and ask questions such as: **GMP2.2** • *Have you rolled more 6s or 2s? Have you rolled fewer 3s or 5s? How many more (or fewer)?* • *Which number have you rolled most (least)? Have you rolled any numbers the same number of times?* • *Do you think you are more likely (or less likely) to roll one number than another?* Practice: Making String and Toothpick Shapes	 
Lesson 3-12 *Monster Squeeze* (game) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.**	
Children play a game to practice number recognition and explore number relationships (greater, less). **K.CC.C.7** Teach students how to play Monster Squeeze – they are guessing numbers between 0-10 using terms greater than and less than. Practice: Solving Number Stories	 *Monster Squeeze- also EM game (ConnectED) Literature Connection-*Go Away, Big Green Monster* by Ed Emberley Song: Go Away Big Green Monster

Kindergarten Section Four	
Connections/Notes	**Resources**
Lesson 4-1 Attribute Blocks **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.** **K.G.A.2 Correctly names shapes regardless of orientation or size.**	
Children classify and sort attribute blocks by shape and size and then count and compare the blocks in each group. • *How did I sort the blocks? What was my sorting **rule**?* GMP7.1, GMP8.1 • *Why do these blocks belong together? How are they alike? How are they different?* GMP7.1, GMP8.1 • *How many blocks are in each group? Are there more red blocks or blue blocks?*  Practice: Matching fingers and numbers **K.CC.B.5** – Students will sort attribute blocks and explain why each group of blocks belongs together. **K.MD.A.1** – Describe the attributes of the blocks sorted. **K.MD.B.3** – Classify, sort, and count the blocks.	 Literature connection: *The Button Story-Frog and Toad are Friends* by Arnold Lobel
Lesson 4-2 Shapes by Feel **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	
 Children explore, recognize, and describe shapes and their attributes by touch. Practice: Roll and Record	 *Mystery Bag Activity-pg. 137 (*Common Core Math in Action*)
Lesson 4-3 Favorite Colors Graph **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	

Kindergarten Section Four	
Connections/Notes	**Resources**
K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	
Children group themselves according to their favorite colors and create a graph to represent and analyze the results. **K.MD.B.3** – Students will create class graph of their favorite colors. Practice: Playing Top It with Dot Cards  A favorite color graph with horizontal bars	*Literature connection-*Caps for Sale* by Esphyr Slobodkina. Students can make a bar graph that shows the number of each color cap in the story. *Hat Day lesson pg. 106 (*Common Core Math in Action*) *Skittle Sorting and Graphing Activity in Kindergarten Resources folder, Section 4 *Top It-also EM game (ConnectED)
Lesson 4-4 Meet the Calculator (optional) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.**	
Children use calculators to practice reading and recording numbers to represent objects. Practice: Searching for Numbers  	
Lesson 4-5 Ten-Frame Quick Looks **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.** **K.OA.A.5 Fluently add and subtract within 5.**	
Children mentally compose and decompose numbers and relate quantities to 5 and 10 on ten frames to develop fact strategies. **K.OA.A.3** Students will use Quick Look Cards to discuss combinations such as "*I saw 2 groups of 3 and 3 and 3 makes 6.*" **DIFFERENTIATE Adjusting the Activity**	*Ten Frame Activities in Kindergarten Resources folder, Section 4 *K Fluency Number Talks Using Five and Ten Frames, pgs. 89-96 (Number Talks by Math Solutions)

<table>
<tr><th colspan="2">Kindergarten Section Four</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td>• Some children may benefit from recording the dots on blank ten frames (Math Masters, page TA38) rather than trying to remember them.
• Work in small groups to support children who struggle to move beyond counting. Have them look for and talk about patterns that help them remember what they see and determine the total.
• Encourage children to find and explain different ways to "see" the same image.
Practice: Playing Match Up with Ten Frames and Numbers</td><td></td></tr>
<tr><td colspan="2">Lesson 4-6 Moving with Teens
K.CC.A.1 Count to 100 by ones and tens.
K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.</td></tr>
<tr><td>Children count and recognize numbers 10 through 19.

K.CC.A.1 – Students will focus on using a number line to count on from the numbers 10-19 (teen numbers).
Practice: Playing Monster Squeeze</td><td>*Literature connection-Meet the Teens by Marcie Cooper

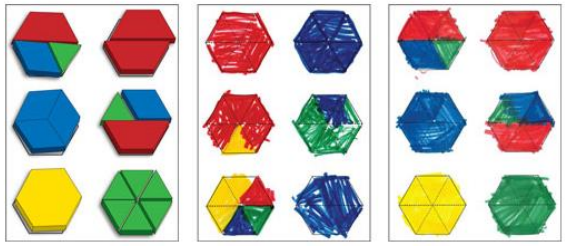
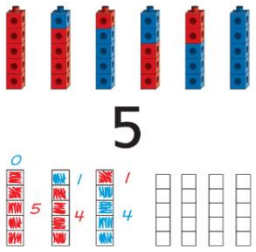
 

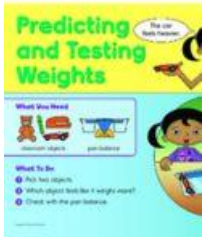
*also EM game (ConnectED)

*Music Connections-Numbers in the Teens

Teen Numbers

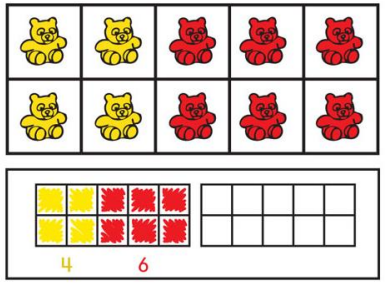
*Teen number activities in Kindergarten Resources folder, Section 4</td></tr>
<tr><td colspan="2">Lesson 4-7 Building Hexagons (Open Response and Reengagement – 2 days)
K.G.A.1 Describe objects in the environment using names of shapes & positions.
K.G.A.2 Correctly names shapes regardless of orientation or size.
K.G.B.6 Compose simple shapes to form larger shapes.</td></tr>
</table>

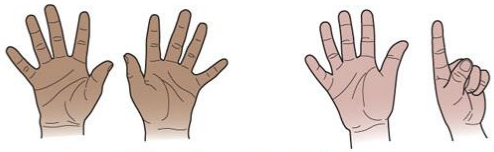
Kindergarten Section Four	
Connections/Notes	**Resources**
Day 1: Children combine pattern blocks in different ways to make a hexagon.  A pair of children finds six different ways to cover the hexagon (left). Partner 1 (center) records only two of the solutions accurately, but Partner 2 (right) records all six solutions accurately. ©University of Chicago Practice: Playing Spin a Number K.G.B.6 Students will use shapes (hexagon, rhombus, square, trapezoid, and triangle) to build other shapes. The goal is to use shapes to find different ways to cover a hexagon. Day 2: Children reengage with their work to consider many ways to cover a hexagon.	Day 2:  
Lesson 4-8 Building Numbers **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.**	
Children use connecting cubes to compose and decompose numbers in multiple ways. Practice: Feeling for Shapes 	*Spaces for Ten Activity-pg. 37(*Common Core Math in Action*) *Hide the Cubes Activity in Kindergarten Resources folder, Section 4 *Decomposing numbers template in Kindergarten Resources folder, Section 4 *Button Bag Activity in Kindergarten Resources folder, Section 4
Lesson 4-9 Exploring Weight and Lesson 4-10 Exploring Capacity **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	

Kindergarten Section Four	
Connections/Notes	**Resources**
In lesson 4-9, children compare the weights of objects through an exploration of the pan balance. Practice: Solving Number stories In lesson 4-10, children compare the capacities of containers. K.MD.A.2 – Students will compare the weights of two objects using a pan balance and containers of different sizes, such as a water bottle and a mug. Practice: Solving Pattern Block Puzzles	   
Lesson 4-11 Counting by 10s **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.2 Count forward beginning from a given number.**	
Children learn and practice skip counting by 10s.  Children can create a handprint display to use as a resource when counting by 10s. Practice: Making Rope Shapes	*Music connections- Counting by 10's to 100 Count by Tens Song *Literature connection-*One Hundred is a Family* by Pam Munoz Ryan
Lesson 4-12 *Top-It with Number Cards* (game) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.**	

Kindergarten Section Four	
Connections/Notes	**Resources**
Children play a game with number cards to practice comparing written numerals. This game is very similar to *Top-It with Dot Cards*, lesson 2-2. Students are using these cards to find the greater card. Practice: Playing Count and Sit variations	 *_Top It_ EM game (ConnectED) *Literature connection- _More or Less_ by Stuart J. Murphy *Greater than-Less than-Equals Activity in Kindergarten Resources folder, Section 4 *Fishing to Compare Numbers Activity in Kindergarten Resources folder, Section 4 *Hot Chocolate Mug Mat in Kindergarten Resources folder, Section 4
Lesson 4-13 Number-Grid Exploration **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.**	
Children explore the Number Grid and use it as a counting tool. K.CC.A.1 Students will use a 100 number grid to count and identify patterns. K.CC.A.2 Students will count up, count on, count back, and by multiples of 10. Practice: Comparing Capacities	*Writing Numerals Poster with Dots in Kindergarten Resources folder, Section 4 *Counting on Trains in Kindergarten Resources folder, Section 4 Literature connection-*How the Stars Fell Into the Sky* by Jerrie Oughton *Music connections- Macarena Count to 100

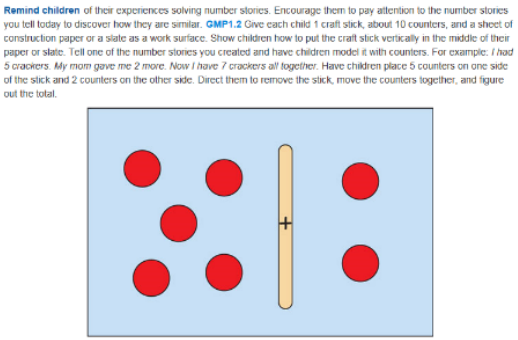
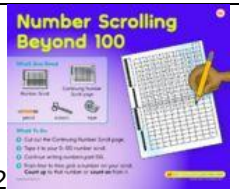
Kindergarten Section Five	
Connections/Notes	**Resources**
Lesson 5-1 The 100th Day of School **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children celebrate the 100th day of school by counting to 100 in a variety of ways and creating and describing 100 collections. Practice: Exploring the Number Grid 	*Literature connections-many 100th Day of School books *Literature connection-*Ready or Not Here I Come* by Teddy Slater Lesson Plan pgs. 68-75 *(Math and Literature by M. Burns & S. Sheffield)* *Music connections- 100th Day of School Song Uptown Funk 100th Day
Lesson 5-2 *Roll & Record with Dot Dice* and Lesson 5-3 *Ten Bears on a Bus* (games) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.**	
In lesson 5-2, children find, record, and analyze sums of dice rolls. *Use My First Math Book pg. 1 to record data **K.OA.A.1** Students will add the dots from 2 dice together and record on their number grid. Practice: Finding combinations of 10	5-2   *Play Car Race game-EM game (ConnectED)

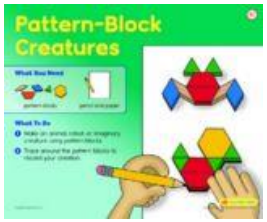
Kindergarten Section Five	
Connections/Notes	**Resources**
In lesson 5-3 children play a cooperative game to generate combinations that add to 10. **K.OA.A.1 & K.OA.A.2** Students will use ten frames and 2 color counters to generate ways to add to 10. Practice: Graphing favorite school activities  Children use a Ten-Frame Recording Sheet to record the combinations of 10 bears they find.	*Play Bears on a Bus game-EM game (ConnectED) *Facts of 10 Activity- in Kindergarten Resources folder, Section 5 5-3  *Literature connection-*Mouse Count* by Ellen Stoll Walsh *Additional activities on pgs. 30-38 (*Common Core Math in Action*)
Lesson 5-4 Find and Draw Shapes and Lesson 5-5 Shapes All Around **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.** **K.G.B.5 Model shapes in the world by building shapes from components.**	
In lesson 5-4, children describe and draw shapes found in pictures. Practice: Moving with Teens-sequence number cards and then choose a movement to do with certain numbers In lesson 5-5, children identify shapes on a “shape walk” and use positional words to describe their location. Practice: Taking Quick Looks at Ten Frames  An example of a child's shape walk recording sheet	5-4 Art connection- create a shape scene using geometric shapes *Music Connection- Numbers in the Teens song 5-5 *Shape Flash Activity-see Kindergarten Resources folder, Section 5 

Kindergarten Section Five	
Connections/Notes	**Resources**
Lesson 5-6 Teen Partners **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.NBT.A.1 Compose and decompose numbers from 11-19.**	
Children use fingers to explore the concept that teen numbers represent "10 and some more ones."  Children show 16 as 10 fingers and 6 more. **K.NBT.A.1** Students will work in pairs to show 10 and some more ones using both students' hands. Practice: Solving Number stories  5-6	*Double Decker Bus Activity in Kindergarten Resources folder, Section 5 *Number Houses to 20 in Kindergarten Resources folder, Section 5 *Teen number activities in Kindergarten Resources folder, Section 5 *Giant Double Ten Frame Activity pgs. 64-65 (*Common Core Math in Action*) *Ten in a Row Activity pgs. 66-67 (*Common Core Math in Action*) *Art connection-make paper chain links to represent the teen numbers or use the plastic links (2 colors)
Lesson 5-7 Seats at the Party (Open Response and Reengagement – 2 days) **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	
Day 1: Children solve a comparison number story and justify, or "prove" their solutions. **K.OA.A.2** Students will solve word problems and have to explain, justify, or prove their answers. This will be done through math writing and drawings. (**K.OA.A.1**) Day 2: Children discuss and analyze different solutions and arguments.	 5-7-Day 2

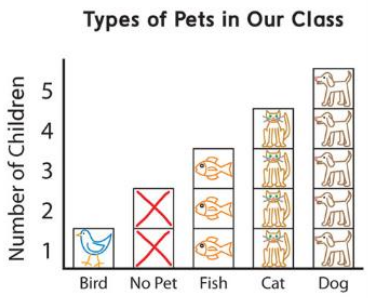
Kindergarten Section Five	
Connections/Notes	**Resources**
Practice: Playing Roll and Record with Dot Dice	*Literature connection-*Bunny Party* by Rosemary Wells
Lesson 5-8 *Teens on Double Ten Frames* (game) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.NBT.A.1 Compose and decompose numbers from 11-19.**	
Children represent and compare teen numbers. **K.NBT.A.1** Students will use double ten frames to show numbers between 10-19. They will use the approach of placing counters on one ten frame to make a ten (the 10 and some more approach from lesson 5-6) and then add the remaining to the second ten frame. **K.CC.C.6** Students will make numbers between 10-19 on their double ten frames and compare with a partner. Who has the large number? Practice: Playing Count and Sit variations	5-8  *Art connection-make a collage representing a teen number *Double Decker Bus Activity in Kindergarten Resources folder, Section 5 *Teen number activities in Kindergarten Resources folder, Section 5 *Number Houses to 20 in Kindergarten Resources folder, Section 5 *Giant Double Ten Frame Activity pgs. 64-65 (*Common Core Math in Action*)

Kindergarten Section Five	
Connections/Notes	**Resources**
	*Ten in a Row activity pgs. 66-67 (*Common Core Math in Action*)
Lesson 5-9 The Equal Symbol (=) **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.**	
Children learn about the equal symbol (=). **K.CC.C.6** Students will show various ways to make a number and decide if they are equal. For example, for the number 5, one child holds up five fingers on one hand and another child holds up 3 fingers on one hand and 2 fingers on the other hand. Are these representations equal? **K.OA.A.3** Students will decompose numbers using fingers or connecting cubes to see how to make numbers equal. Practice: Playing *Top It with Number Cards*	*Play Car Race game-EM game (ConnectED) *Literature connection-*Equal Shmequal* by Virginia L. Kroll. Lesson plan pg. 50 (*Common Core Math in Action*) *Music connection: The Equal Song
Lesson 5-10 The Addition Symbol (+) and Lesson 5-11 *Growing Train* (game) **K.CC.A.2 Count forward beginning from a given number.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	
In lesson 5-10, children model number stories with counters and the addition symbol (+). **K.CC.A.2** Students will count on for addition number stories.	 *Literature connection-*Little Quack* by Lauren Thompson *Play Ten Bears on a Bus-EM game (ConnectED)

Kindergarten Section Five	
Connections/Notes	**Resources**
K.OA.A.2 Students will solve addition number stories using counters and a craft stick for the addition symbol (+). Practice: Playing Ten Bears on a Bus In lesson 5-11, children model addition concretely and symbolically through a game. Practice: Drawing Shapes from Pictures  **Remind children** of their experiences solving number stories. Encourage them to pay attention to the number stories you tell today to discover how they are similar. GMP1.2 Give each child 1 craft stick, about 10 counters, and a sheet of construction paper or a slate as a work surface. Show children how to put the craft stick vertically in the middle of their paper or slate. Tell one of the number stories you created and have children model it with counters. For example: *I had 5 crackers. My mom gave me 2 more. Now I have 7 crackers all together.* Have children place 5 counters on one side of the stick and 2 counters on the other side. Direct them to remove the stick, move the counters together, and figure out the total.	*Play Growing Train game-EM game (ConnectED) *Music Connection-"Two Little Chickens" (Sing Everyday! – (ConnectED) *Additional addition story problems-result unknown in *Problem Solving with Math Models* by Dr. Nicki Newton *Addition activities pg.36 (*Common Core Math in Action)* *Bunk Bed Addition Activity in Kindergarten Resources folder, Section 5 5-11  
Lesson 5-12 Number Scrolls **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.**	
Children write numbers on scrolls to deepen their understanding of the count sequence and place value. (informal assessment) As you circulate, note how children fill in their scrolls. Do they write the numbers in order? Do they use patterns to complete the scroll? Practice: Playing *Monster Squeeze*	5-12  *Monster Squeeze-EM game (ConnectED)

<table>
<tr><th colspan="2">Kindergarten Section Five</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td></td><td>*Writing Numerals Poster with Dots in Kindergarten Resources folder, Section 5
*Writing Numerals activities pgs.19-20 (Common Core Math in Action)</td></tr>
<tr><td colspan="2">Lesson 5-13 Shape Combinations
K.G.A.1 Describe objects in the environment using names of shapes & positions.
K.G.A.2 Correctly names shapes regardless of orientation or size.
K.G.B.4 Analyze and compare two and three dimensional shapes.
K.G.B.6 Compose simple shapes to form larger shapes.</td></tr>
<tr><td>Children combine shapes to create new shapes. (K.G.B.6) They can rotate (turn) and combine (put together) the shapes in different ways.
Example activities:
• Hold 2 small triangles together so they form a larger triangle and ask: What happens when I put 2 small triangles together this way? Have children use their cards to form a larger triangle.
• Change the position of the 2 triangles so they form a square and ask: Now what shape did I make from the 2 small triangles? Invite children to form a square with their cards.
• Hold up 2 large rectangles and ask: What shape can you make with these rectangles if you put them next to each other? Can you make a different rectangle using these 2 rectangles? How did you make it? How is it different? GMP1.5, GMP3.1
Practice: Building Numbers</td><td>5-13
 
 
*Literature connection-Mouse Shapes by Ellen Stoll Walsh, Shape by Shape by Suse MacDonald</td></tr>
<tr><td colspan="2">Optional- Conduct Mid-Year Assessment after Section 5 to evaluate children’s skills and understandings. (pp. 14-22 in the Assessment Handbook).</td></tr>
</table>

Kindergarten Section Six	
Connections/Notes	**Resources**
Lesson 6-1 Body Heights with String and Lesson 6-2 Length Line Up **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
In lesson 6-1, children use string to compare their body heights to classroom objects. Practice: I Spy with Shapes-2D and positional language In lesson 6-2, children compare and order straws by length. **K.MD.A.1** Students will use terms such as length, height, how long, how tall. **K.MD.A.2** Students will compare to lengths or heights and describe the attributes such as longer, shorter, the same as, or taller. They will also order themselves from shortest to tallest. Practice: Using the pan balance to weigh objects	 6.1 *Literature connection-*Tall* by Jez Alborough 6.2 *Veggie-Table Activity pg. 102 (*Common Core Math in Action*) *Literature connections: 1. *The Best Bug Parade* by Stuart J. Murphy 2. *A Pig is Big* by Douglas Florian Lesson plan on pgs. 54-59 (*Math and Literature* M. Burns and S. Sheffield)
Lesson 6-3 Types of Pets Graph **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	

Kindergarten Section Six	
Connections/Notes	**Resources**
 When the graph is complete, ask: *What does the graph tell us?* Prompt with specific questions, such as: GMP4.2 • *How many children have dogs? Cats? Fish?* • *Which type of pet is the most common among the children in our class? How can you tell?* • *Which type of pet is owned by two (or another number) children in our class?* • *Are there any types of pets owned by the same number of children? Which ones? How do you know?* • *Are there more children with fish than children with cats? If so, how many more? How can you find out?* • *Do you think it is helpful to have the strips in order from least to greatest (most)? Why or why not?* Practice: Teens on Double Ten Frame	Children sort, count, and compare as they make and interpret a graph about pets. *Double Decker Bus activity in Kindergarten Resources folder, Section 6 *Number Houses in Kindergarten Resources folder, Section 6 *Flashcards to 20 Using Ten Frames in Kindergarten Resources folder, Section 6 *Rekenrek Activity-*Number Talks* pg.42-43
Lesson 6-4 Solid-Shapes Museum and Lesson 6-5 Flat and Solid Shapes **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.A.3 Identify shapes as two-dimensional or three-dimensional.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	
In lesson 6-4, children name, describe, and compare 3-dimensional shapes in everyday objects. K.G.A.1 Students will describe objects in the real world such as a ball is a sphere or a die is a cube. K.G.A.2 Students will correctly identify 3-D shapes (cylinder, cone, cube, sphere, and rectangular prism). Discuss how the shapes are alike and different. Do they have vertices or edges? Practice: Playing Roll and Record with Dot Dice	6.4  *Mystery Bag activity pg.137 (*Common Core Math in Action*)

<table>
<tr><th colspan="2">Kindergarten Section Six</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td>In lesson 6-5 children analyze differences and relationships among 2 and 3-dimensional shapes. K.G.B.4 Students will describe 2-D (flat shapes) and 3-D (solid shapes). Ask if they see any 2-D shapes in the 3-D shapes?

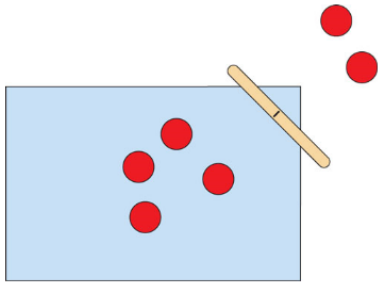
Practice: Graphing Numbers of Pets</td><td>*Shape Sort Activity pg.139 (Common Core Math in Action)

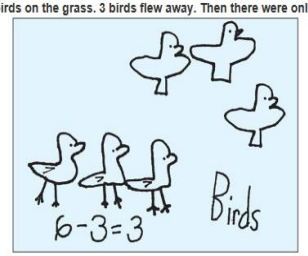
*Shape Flash in Kindergarten Resources folder, Section 6
  </td></tr>
<tr><td colspan="2">Lesson 6-6 “What’s My Rule?” Fishing (game)
K.CC.B.5 Count to answer “How many?” questions about as many as 20 things.
K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.
K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.</td></tr>
<tr><td>Children figure out and apply sorting rules as they play a game.

Practice: Ordering Body Heights by String</td><td>6.6  

*Literacy connection-play “What’s My Rule” with words (begin w/same letter, rhyme…)</td></tr>
<tr><td colspan="2">Lesson 6-7 Tall Enough to Ride? (Open Response and Reengagement – 2 days)
K.MD.A.1 Describe measurable attributes of objects.
K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has “more or less of” the attribute.</td></tr>
<tr><td>Day 1: Children use stick-on notes to measure their heights to determine whether they are tall enough to ride an amusement park ride.

K.MD.A.1 & K.MD.A.2 Students will have their strings from lesson 6-1 to use and a stack of sticky notes. They will work with a partner to figure out how tall they are using the notes. (Things to look for: They may measure by putting the notes on the string, they may measure on a wall, or they may measure on the floor). Look for misconceptions such as students leaving gaps in between each note. Then they will need to record their results on page 90.</td><td>*How Many Shoes Are You? Activity pg. 103 (Common Core Math in Action)</td></tr>
</table>

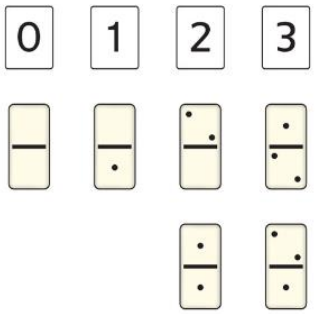
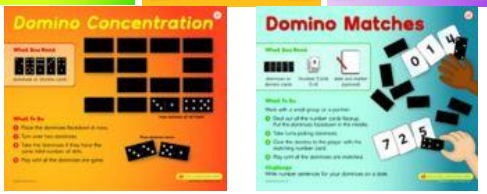
Kindergarten Section Six	
Connections/Notes	**Resources**
Day 2: Children share and discuss their strategies or measuring and whether their stick-on note measurements make sense. Practice: Playing *Growing Train*	 **Growing Train* game EM game (ConnectED)
Lesson 6-8 The Subtraction Symbol (-) and Lesson 6-13 Number Stories with Symbols (+, -, =) **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	
In lesson 6-8, children model number stories with counters and the subtraction symbol. In lesson 5-10, children model number stories with counters and the addition symbol (+).  Give each child a craft stick, a sheet of construction paper or a slate as a work surface, and about 10 counters. Tell a "take-away" (or "take-from" or "take-apart") number story and guide children in modeling the story with counters. For example: *Elliot had 6 books at school.* (Have children place 6 counters on their paper or slate.) *He took 2 books home today.* (Have children use their sticks to sweep 2 counters off to the side.) *How many of his books are left at school?* (Have children count how many remain.) At each step, take time to talk about how the action matches the problem. **GMP2.1**, **GMP4.1** Repeat with other take-away stories. For example: • *Levi saw 5 birds. Three birds were red. The rest were orange. How many birds were orange?* • *Amaya had 7 stickers. She gave 2 to Jordan. How many stickers does Amaya have left?*	**K.OA.1** Students will take away for subtraction number stories. **K.OA.2** Students will solve subtraction number stories using counters and a craft stick for with the subtraction symbol (+). Practice: Finding Shapes All Around	6.8  *Literature/Music connection-read and sing *Five Little Ducks* by Raffi *Five Little Ducks Song 1* *Five Little Ducks Song 2* **Subtract with a Pirate* (song) 6-13 *Literature Connection-*Blueberries for Sal* by Robert McCloskey

Kindergarten Section Six	
Connections/Notes	**Resources**
In lesson 6-13, children model number stories with equations. "I saw 6 birds on the grass. 3 birds flew away. Then there were only 3 birds."  Practice: Playing *Teens on a Double Ten Frame* or *Top It*	  
Lesson 6-9 *Disappearing Train* and Lesson 6-12 *Growing and Disappearing Train* (games) **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	
In lesson 6-9, children model subtraction concretely and symbolically through a game. (See lesson 5-11 – This game is played like "Growing Train" but instead of using addition, you use subtraction.) Practice: Combining Shapes	  6.9 **Monkeys and Mr. Alligator* and *Monkeys on the Bed* activities pgs.30-31 (*Common Core Math in Action*) *Subtraction word problems result unknown- pgs. 25-44 (*Problem Solving with Math Models* by Dr. Nicki Newton)

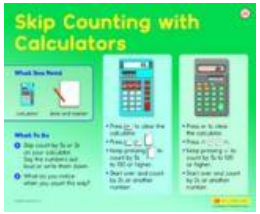
Kindergarten Section Six	
Connections/Notes	**Resources**
In lesson 6-12, children practice addition and subtraction in a game. See T. Manual page 415 for directions. Practice: Playing *Guess My Number*	6.12  *Train game-EM game (ConnectED)
Lesson 6-10 *Attribute Spinner* (game) **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	
 Children describe, analyze, and compare measureable and geometric attributes through a game. Practice: Making Tens with Ten Frames	6.10  *Shape Flash Activity-in Kindergarten Resources folder, Section 6 *Ten Frame Activities- in Kindergarten Resources folder, Section 6
Lesson 6-11 *Hiding Bears* (game) **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.1Represent addition and subtraction.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.**	

Kindergarten Section Six	
Connections/Notes	**Resources**
Children play a game to practice finding combinations that add to 10. **K.OA.A.4** A student will hide bears under a cup (only use 10 bears for this game). His partner will count the bears under the cup and figure out how many more are needed to make 10. Practice: Counting to the Number of the Day	6.11   *Number of the Day Prompts in Kindergarten Resources folder, Section 6 *Compatible Numbers to 10 Activity in Kindergarten Resources folder, Section 6 *Two Fisted Penny Addition game-EM game (ConnectED) *Part Part Whole Mat in Kindergarten Resources folder, Section 6

Kindergarten Section 7	
Connections/Notes	**Resources**
Lesson 7-1 Number Line Addition and Subtraction and Lesson 7-2 Domino Addition **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	

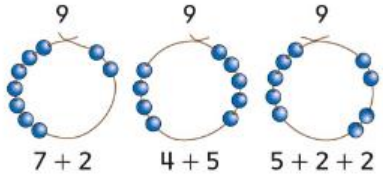
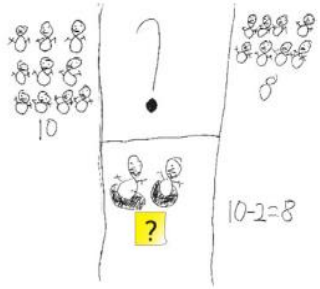
Kindergarten Section 7	
Connections/Notes	**Resources**
K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects. **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	
In lesson 7-1, children add and subtract on a walk-on number line. **K.OA.A.1** Students will take turns being a "frog" and hopping on a number line to solve addition and subtraction number stories. Practice: Revisiting Solid Shapes Museum  In lesson 7-2, children add the dots on dominoes, match the totals to written numerals, and record the addition number sentences. (**K.OA.1, K.OA.3 & K.MD.3**) Practice: Playing "What's My Rule?" Fishing	7-1  *Hop To It Activity pg. 28 (*Common Core Math in Action*) *Shape Flash Activity in Kindergarten Resources folder, Section 7 *Addition and subtraction practice problems-(*Problem Solving with Math Models* Dr. Nicki Newton) *Train games-EM game (ConnectED)  7-2  *Domino Recording sheet in Kindergarten Resources folder, Section 7
Lesson 7-3 Teen Collections	

Kindergarten Section 7	
Connections/Notes	**Resources**
K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20. **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.** **K.NBT.A.1 Compose and decompose numbers from 11-19.**	
Children use double ten frames to count out and compare sets of 10-19 objects. See lesson 5-8 for how to use the double ten frames. Practice: Playing *Monster Squeeze*	 7-3 *Monster Squeeze-EM game (ConnectED) *Giant Double Ten Frame pgs. 64-65 (*Common Core Math in Action*) *Dot Card Activities in Kindergarten Resources folder, Section 7
Lesson 7-4 *Solid-Shapes Match Up* (game) **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.A.3 Identify shapes as two-dimensional or three-dimensional.** **K.G.B.4 Analyze and compare two and three dimensional shapes.**	
Children play a game to practice identifying 2-dimensional representations of 3-dimensional objects. Introduce the *Solid-Shapes Match Up* Cards and play a few rounds of *Solid-Shapes Match Up* with the class. Shuffle the deck and place the cards face down in rows. Have children take turns flipping over two cards, naming the 3-dimensional shape of the object shown on each card, and deciding if the objects are the same shape (for example, both cones). If they match (such as an ice-cream cone and a party hat), the child keeps the pair. Play until all cards have been taken. **GMP2.2**, **GMP6.3** **Distribute sets of *Solid-Shapes Match Up* Cards** to pairs of children and have them play. As you circulate, remind children that cubes are special rectangular prisms, but in this game they will only match cubes with other cubes and will only match non-cube rectangular prisms with other non-cubes. Elicit precise geometric language and detailed explanations of how children know the objects are particular shapes. **GMP3.1**, **GMP6.3** Practice: Telling Number Stories with Symbols	 7-4 *Literature connection-*Cubes, Cones, Cylinders and Spheres* by Tana Hoban *Music connection- 3D Shape Song *Instant Presto Number Stories pg.34 (*Common Core Math in Action*)

<table>
<tr><th colspan="2">Kindergarten Section 7</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td></td><td>*Give a Dog a Bone Activity in Kindergarten Resources folder, Section 7
*Bunk Bed activity in Kindergarten Resources folder, Section 7</td></tr>
<tr><td colspan="2">Lesson 7-5 Count and Skip Count with Calculators
K.CC.A.1 Count to 100 by ones and tens.
K.CC.A.2 Count forward beginning from a given number.</td></tr>
<tr><td>Children count on by 1s and count by 10s on calculators.
K.CC.A.2 Students will use a calculator to practice counting on by 1s, then 10s.
Key Sequence for Counting Forward by Adding
1. Press [ON/C] or (AC) to clear.
2. Press [1] to display 1.
3. Press [+] [1].
4. Press [=]. What number do you see now? (2)
5. Keep pressing [+] [1] [=] to continue counting forward.
Practice: Playing Hiding Bears</td><td>7-5
 
 
*Music Connection-sing “Ten in the Bed” or “Five Green and Speckled Frogs” (Sing Everyday! (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 7-6 Pan Balance: Leveling
K.MD.A.1 Describe measurable attributes of objects.
K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has “more or less of” the attribute.</td></tr>
<tr><td>Children use a pan balance as a tool to explore and compare weights.

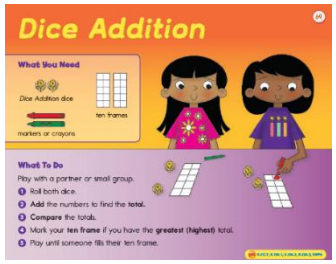
K.MD.A.2 Students will determine if objects are equal or unequal by weighing them using a pan balance. Have students make predictions first such as “This toy car is as heavy as this ball of clay”.
  </td><td>7-6</td></tr>
</table>

Kindergarten Section 7	
Connections/Notes	**Resources**
Practice: Doing Quick Looks: Double Ten Frames	  *Flashcards to 20 Using Ten Frames in Kindergarten Resources folder, Section 7 *Relationships for Numbers 10-20 pgs.54-56 (*Teaching Student-Centered Mathematics*)
Lesson 7-7 Representing Survey Data (Open Response and Reengagement – 2 days) **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.**	
Day 1: Children conduct surveys and represent their results. Students will work with a partner to come up with a survey question they want to ask the class. Then they will decide how they want to show their data. **Provide each partnership** with a large sheet of construction paper and crayons or markers. Invite pairs to organize and represent the results of their surveys so that others can see and understand what they learned. Partners might make a tally chart, a graph, a picture, or another representation. These varied representations will provide opportunities for an interesting conversation during Reengagement on Day 2 of the lesson, so do not encourage, favor, or insist on a particular format. Provide assistance as needed, but have children do the bulk of the work themselves. Day 2: The class analyzes different data representations and discusses characteristics that contribute to clear representations. Practice: *Roll and Record with Dot Dice-math mat game/EM game (ConnectED)*	 *Literature connection-*Best Vacation Ever* by Stuart J. Murphy **Roll and Record with Dot Dice* game-EM game (ConnectED)
Lesson 7-8 Estimation Jar **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.**	

Kindergarten Section 7	
Connections/Notes	**Resources**
K.CC.B.5 Count to answer "How many?" questions about as many as 20 things. **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.**	
Children make and check estimates using comparison and counting strategies. **K.CC.B.5** Students count objects in a jar. They will estimate how many are in a second jar. Then count together. Discuss the terms **much too high, much too low, and pretty close** when comparing their estimations. (**K.CC.C.6**) Practice: Playing *Attribute Spinner*	 *Estimate Jar Activity (labeled as 1.NBT.A.1) but fits well with K lesson) pg. 69 (*Common Core Math in Action*)
Lesson 7-9 Bead Combinations and Lesson 7-10 Class Number-Story Book **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.**	
In lesson 7-9, children decompose numbers in multiple ways (counting cubes, beads, etc.)  Example: Ways to decompose and make 9. Practice: Estimating Beans  *I made 10 snowmen. Some of them melted and then there were 8 snowmen. How many snowmen melted?* In lesson 7-10, children create and solve number stories and represent them with pictures and mathematical symbols. Use number stories that reflect start-, change-, and end-unknown. Practice: Playing *Growing and Disappearing Train*	 *Number Bracelets Activity-pg. 38 (*Common Core Math in Action)*  *Game is also EM game (ConnectED) *Addition number story problems-*Problem Solving with Math Models* by Dr. Nicki Newton

<table>
<tr><th colspan="2">Kindergarten Section 7</th></tr>
<tr><th>Connections/Notes</th><th>Resources</th></tr>
<tr><td></td><td>*Literature Connection-12 Ways to Get to 11 by Eve Merriam lesson plan pgs.112-118 (Math and Literature by M. Burns and S. Sheffield)

A retelling by a Kindergarten class:
13 Ways to Get to 11</td></tr>
<tr><td colspan="2">Lesson 7-11 Class Collection
K.CC.A.1 Count to 100 by ones and tens.
K.CC.A.2 Count forward beginning from a given number.
K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.
K.CC.B.5 Count to answer “How many?” questions about as many as 20 things.</td></tr>
<tr><td>Children use a growing collection of objects to count and to record data.

Practice: Solving Pattern Block Puzzles</td><td></td></tr>
<tr><td colspan="2">Lesson 7-12 Dice Addition (game)
K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.
K.OA.A.1 Represent addition and subtraction.
K.OA.A.2 Solve addition and subtraction word problems within 10.
K.OA.A.5 Fluently add and subtract within 5.</td></tr>
<tr><td> 

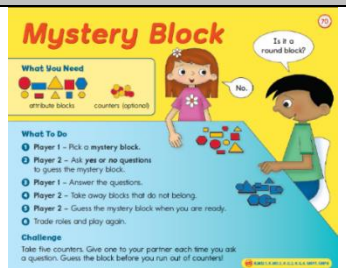
Children play a game to develop fluency with addition facts to five.

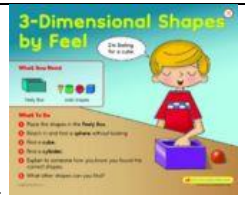
K.OA.A.2 & K.OA.A.5 – Students will roll 2 dice, add the numbers together, and the student with the greater number will color in a space on his/her ten frame. First to color in all spaces wins.

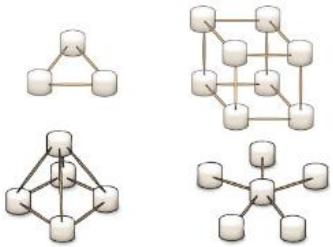
Practice: Playing Number Grid Cover-Up</td><td>*Fluency Number Talk Activities-Number Talk pg. 68-96

*Literature Connection-Animals On Board by Stuart J. Murphy

*Roll and Record with Dot Dice game-EM game (ConnectED)</td></tr>
<tr><td colspan="2">Lesson 7-13 Mystery Block (game)
K.MD.A.1 Describe measurable attributes of objects.
K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.
K.G.A.2 Correctly names shapes regardless of orientation or size.
K.G.B.4 Analyze and compare two and three dimensional shapes.</td></tr>
</table>

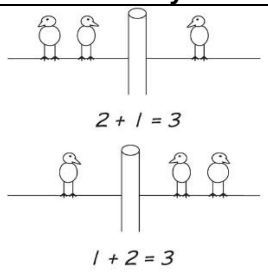
Kindergarten Section 7	
Connections/Notes	**Resources**
 Children ask questions about attributes to identify and describe a mystery block. Practice: Playing *Frog Hop*	7-13 **Shape Flash* Activity in Kindergarten Resources folder, Section 7  *Additional pattern block activities-pg.136-137 (*Common Core Math in Action*)

Kindergarten Section Eight	
Connections/Notes	**Resources**
Lesson 8-1 Solid Shapes by Feel and Lesson 8-2 Marshmallow and Toothpick Shapes **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.A.3 Identify shapes as two-dimensional or three-dimensional.** **K.G.B.4 Analyze and compare two and three dimensional shapes.** **K.G.B.5 Model shapes in the world by building shapes from components.** **K.G.B.6 Compose simple shapes to form larger shapes.**	
In lesson 8-1, children use their sense of touch to recognize, describe, and analyze 3-dimensional shapes and their attributes. K.G.A.3 Students will play "I Spy" to identify 3-dimensional shapes. Then they will use a "feel box" to find a shape by touch. Practice: Counting the Class Collection	8.1  *Literature Connection-*Captain Invincible and the Space Shapes* by Stuart J. Murphy *Mystery Bag Activity-pg.137 *(Common Core Math in Action)*

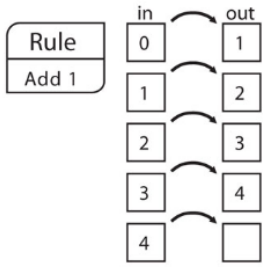
Kindergarten Section Eight	
Connections/Notes	**Resources**
In lesson 8-2, children model 2-dimensional and 3-dimensional shapes.  Marshmallow-and-toothpick shapes K.G.B.6 Students will use toothpicks and marshmallows to make 3-D shapes. They will discuss what 2-D shapes make up the 3-D shapes. Practice: Representing Number Stories	8.2 
Lesson 8-3 Counting to Measure Time **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children explore counting as a way to measure and compare length of time. **Remind children** of their experiences comparing lengths, weights, and capacities of objects (in Lessons 4-9, 4-10, and 6-1, for example). Explain that they used the words **longer** and **shorter** to describe lengths of objects, but today they will use those words to compare lengths of time. Using a few examples from your class schedule or daily life, encourage children to compare the lengths of familiar events. For example, you might ask: *Which takes a longer (or shorter) time: eating dinner or brushing your teeth? A television commercial or a television show? Lunch time or snack time?* Practice: Constructing Curved Shapes-use modeling dough or clay to build curved shapes (cone, cylinder, sphere, circle)	*Literature connections-*Tortoise and the Hare* by Aesop-students can share ideas about how they might measure the animals time as well as research other animals and how fast/slow they move *This is the Way We Go to School* by Edith Baer-students can discuss which methods are faster/slower
Lesson 8-4 Interrupted Counting **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.2 Count forward beginning from a given number.**	
Children count forward from numbers other than 1 throughout the 1-100 sequence. **K.CC.A.2** Students will practice counting on or forward by any given number such as the calendar date, number of students in class, or a randomly selected number.	8.4 Catch the Count on Jar pg.18 (*Common Core Math in Action)* *Penny Plate 10 game /Two Fisted Penny Addition 10 game-EM game (ConnectED)

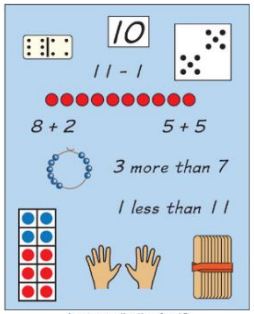
Kindergarten Section Eight	
Connections/Notes	**Resources**
Practice: Playing *Hiding Bears* 	*Ten Cups Upside Down activity pg. 38 (*Common Core Math in Action*)
Lesson 8-5 *Dice Subtraction* and Lesson 8-11 *Addition Top-It* (games) **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.5 Fluently add and subtract within 5.**	
In lesson 8-5, children play a game to develop fluency with subtraction facts within 5. Demonstrate *Dice Subtraction* by playing a few rounds with a child: **1.** Give each player a blank ten frame and a pair of *Dice Subtraction* dice. (See Before You Begin.) **2.** Players roll their dice and subtract the smaller number from the larger number. Then they state the subtraction equation and the difference. (*4 minus 2 equals 2*, for example.) **3.** The player with the smallest difference marks one space on a ten frame. If there is a tie, both players mark a space. **4.** The game ends when one player has filled a ten frame. **5.** Practice: Counting the Class Collection In lesson 8-11, children play a game with number cards to gain fluency with addition. **Remind children of playing *Dice Addition*** (Lesson 7-12) to practice adding small numbers quickly and accurately. Explain that today they will continue to practice adding numbers as they play the game *Addition Top-It.* Encourage children to try to fluently produce sums as they play. Introduce *Addition Top-It* by showing the deck and having a child play several rounds with you: **1.** Shuffle the deck and place it facedown between you and your partner. **2.** Each player takes two cards from the top of the deck and places them face up. Players add the two numbers and take turns stating their total. *(4 plus 2 equals 6!)* **3.** The player with the greater total takes all four cards. If there is a tie, both players take two more cards and the player with the greater total takes the cards from both rounds.	 8.5 *Fluency Number Talk Activities-*Number Talk* pg. 68-96 *Literature connections: *The Action of Subtraction* by Brian Cleary *Pete the Cat and His 4 Groovy Buttons* by James Dean *Addition and subtraction word problem stories in *Problem Solving with Math Models* by Dr. Nicki Newton

Kindergarten Section Eight	
Connections/Notes	**Resources**
4. The game ends when there are not enough cards left for each player to have another turn. The player with the most cards wins. Practice: Playing *"What's My Rule?"*	8.11  *Two Out of Three Ways to Make 5 activity in Kindergarten Resources folder, Section 8 *Beat the Computer game-EM game (ConnectED)
Lesson 8-6 Craft-Stick Bundles **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.NBT.A.1 Compose and decompose numbers from 11-19.**	
Children use bundles of ten and single craft sticks to represent numbers greater than ten. **K.NBT.A.1** Students will count and group craft sticks by ones and tens. They will compose the numbers 10-19. **DIFFERENTIATE Adjusting the Activity** Provide a larger quantity of craft sticks (between 20 and 100) for children who are ready for larger numbers. Many children will be ready for this modification. Children who use a larger number of sticks will need to skip the double ten frame representation on the *My First Math Book* page, but they can record an equation, such as 50 + 6 = 56. Practice: Representing Survey Data	 8.6 *Clothespin Activity in Kindergarten Resources folder, Section 8 *Counting School Days Activity pg. 68 (*Common Core Math in Action)* *Number Grid Game-EM game (ConnectED) *Exchange game-EM game (ConnectED)

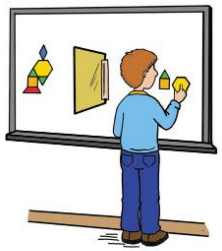
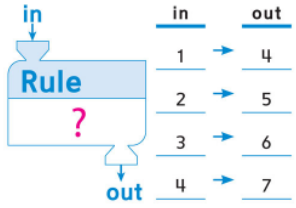
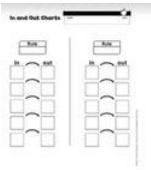
Kindergarten Section Eight	
Connections/Notes	**Resources**
Lesson 8-7 Birds on Wires (Open Response and Reengagement – 2 days) **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.**	
 Day 1: Children find number pairs that add to 10. (**K.OA.A.2**) Share the following story with children: *Yesterday I saw 3 birds flying near 2 telephone wires. What is one way the 3 birds could sit on 2 wires?* Invite a child to share a solution. Sketch (or have the child sketch) it for the class to see. Ask: *What is another way the 3 birds could sit on the 2 wires?* Sample answers: 3 birds on one wire and 0 birds on the other wire; 0 birds on one wire and 3 birds on the other; 2 birds and 1 bird; 1 bird and 2 birds **GMP1.5** Record children's solutions using simple drawings. Also share another way to represent their solutions, such as with number pairs or number sentences. Have children compare the following two solutions: 2 birds on the first wire and 1 bird on the second; 1 bird on the first wire and 2 birds on the second. Ask: *What do you notice about these two ways of showing the birds?* Sample answers: They both show 2 birds on one wire and 1 one bird on the other wire. They are switched—2 birds are on the first wire here and 2 birds on the second wire there. **GMP7.1** Point out that these two solutions are similar, but they are not exactly the same. Next explain that you have a more challenging problem that you need their help to solve. Give students another problem to solve and work out independently. Day 2: Children share their solutions, describe patterns they see, and discuss how they can use the patterns to find more solutions. Practice: Pattern Block Puzzles: Stage 2	Day 1- *Tric Trac game-EM game (ConnectED) Day 2- 
Lesson 8-8 *Car Race* (game) **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.**	

Kindergarten Section Eight	
Connections/Notes	**Resources**
 Children play a game to practice decomposing numbers and finding a missing part of 10. **K.OA.A.3** The goal of this game is for players to work together to move all three counters to the 10 space on the track. They can split the number they roll into 3 cars, or just move one. This will address decomposing numbers to 10. Practice: Identifying 3D shapes by Feel	*EM games (ConnectED)-Car Race, Penny Plate, Ten Bears on a Bus, Two Fisted Penny Addition *Mystery Bag Activity-pg.137 (*Common Core Math in Action)*
Lesson 8-9 Number Stories with Calculators (Optional) **K.OA.1 Represent addition and subtraction.** **K.OA.2 Solve addition and subtraction word problems within 10.**	
Children solve number stories with calculators. **K.OA.1 & K.OA.2** Students will solve number stories (joining, change-to-more, change-to-less, or end-unknown) using calculators. Practice: Making Bead Combinations of 10	*Addition and subtraction number stories-*Problem Solving with Math Models* by Dr. Nicki Newton
Lesson 8-10 Nonconsecutive Numbers **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.**	
Write five number cards in order from least to greatest. Repeat for five new cards. Answers vary. Least ☐ ☐ ☐ ☐ ☐ Greatest Children compare numbers and place them in order from smallest (least) to largest (greatest). Practice: Estimating Pennies	*Counting on Trains Activity in Kindergarten Resources folder, Section 8 *Garbage Can Activity in Kindergarten Resources folder, Section 8 *Number Squeeze/Top It with Number Cards-EM game (ConnectED) 

Kindergarten Section Eight	
Connections/Notes	**Resources**
Lesson 8-11 *Addition Top-It* (game), Lesson 8-12 Function Machines, and Lesson 8-13 Name-Collection Posters **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.** **K.OA.A.5 Fluently add and subtract within 5.** **K.NBT.A.1 Compose and decompose numbers from 11-19.**	
In lesson 8-11, children play a game with number cards to gain fluency with addition. 1. Shuffle the deck and place it facedown between you and your partner. 2. Each player takes two cards from the top of the deck and places them face up. Players add the two numbers and take turns stating their total. *(4 plus 2 equals 6!)* 3. The player with the greater total takes all four cards. If there is a tie, both players take two more cards and the player with the greater total takes the cards from both rounds. 4. The game ends when there are not enough cards left for each player to have another turn. The player with the most cards wins. Discuss strategies for solving the addition problems, which may include recalling facts or patterns or using strategies such as counting on from one number, or adding on a number line. Model how to check each other's totals, thinking aloud about the strategies most appropriate for your class. (For example: *I added 5 plus 2 by counting on from 5...6, 7. I knew 3 + 1 in my head.*) If needed, also discuss strategies for figuring out who has the greater total. **GMP6.1** Practice: *"What's My Rule"* with Partners In lesson 8-12, children learn about function machines and use them to practice basic addition and subtraction problems. **K.OA.A.2** Students can use connecting cubes to add and subtract according to the rule. Practice: Playing *Roll and Record with Dot Dice* 	8-11   *Fluency Number Talk Activities-*Number Talk* pg68-96 *EM games (ConnectED)-Monster Squeeze, Top It with Number Cards, Beat the Computer 8-12  *Roll and Record game-EM game (ConnectED) *Guess My Rule Activity pg.304 (*Teaching Student Centered Mathematics* by Van De Walle and Lovin)

Kindergarten Section Eight	
Connections/Notes	**Resources**
In lesson 8-13, children explore equivalent names for numbers. **K.NBT.A.1** Students will show different ways to make a given number. Practice: Playing Addition Games  A name collection for 10	 8-13 *Addition/Domino Activities in Kindergarten Resources folder, Section 8 *Literature connection- *One is a Snail, Ten is a Crab* by April Pulley Sayre- students can make their own number representations/equations with animals from the story With sign language: *One is a Snail*

Kindergarten Section Nine	
Connections/Notes	**Resources**
Lesson 9-1 *Make My Design* (Game) **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.6 Compose simple shapes to form larger shapes.**	

Kindergarten Section Nine	
Connections/Notes	**Resources**
 Set up the board with pattern blocks and a file folder screen to introduce *Make My Design*. Children play a game using shape and positional language to describe and re-create pattern-block designs. K.G.B.6 Students will copy a partner's pattern block design without seeing it (using descriptive words). Practice: Graphing Favorite Math Game	 9-1 *Back to Back Pattern Blocks pg.136 (*Common Core Math in Action)*
Lesson 9-2 *Subtraction Top-It* and Lesson 9-3 *"What's My Rule?"* with Numbers (games) **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.5 Fluently add and subtract within 5.**	
In lesson 9-2, children play a game with number cards to gain fluency with subtraction. (Remind students of playing *Addition Top-It* in lesson 8-1, adding numbers. Then teach them how to play *Subtraction Top-It*, practicing subtracting numbers). Practice: Reviewing Function Machines  An In and Out Chart for the Rule "Add 3." In lesson 9-3, children identify and use addition and subtraction. (Refer to lesson 8-12 when they used function machines). As children are ready, increase the difficulty by using harder rules, larger *in* numbers, and *in* numbers in nonconsecutive order. Each time, provide several pairs of *in* and *out* numbers and ask: *What's my rule?* Have several children share and discuss how they figured out the rule. Record the rule in place of the "?" and then have children apply it to a few more *in* numbers, explaining how they apply the rule to the *in* number to get the *out* number. **GMP1.1, GMP7.2, GMP8.1** Sample rules: • *Subtract 2* (10 *in*, 8 *out;* 9 *in*, 7 *out*) • *Make 10* (2 *in*, 8 *out;* 4 *in*, 6 *out*) • *Subtract 10* from teen numbers (16 *in*, 6 *out;* 14 *in*, 4 *out*) • *Add 9* (1 *in*, 10 *out;* 5 *in*, 14 *out*) (Help children see that this is one *less* than adding 10.)	  9-2 *Fluency Number Talk Activities-*Number Talk* pg. 68-96 *Train games-EM game (ConnectED)   9-3 *Tric Trac game-EM game (ConnectED)

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<tr><th>Connections/Notes</th><th>Resources</th></tr>
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- *Add 10* (1 *in*, 11 *out;* 5 *in*, 15 *out*)
- *Add 10* to multiples of 10 (20 *in*, 30 *out;* 50 *in*, 60 *out*)

Practice: Counting the Class Collection

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Lesson 9-4 Backpack Math: Height, Width, and Area and Lesson 9-5 Backpack Math: Weight and Capacity
K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.
K.MD.A.1 Describe measurable attributes of objects.
K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.

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In lesson 9-4, children explore measurable attributes of backpacks.

K.MD.A.2 Students will compare the **height** and **width** of 2 backpacks. Introduce **area** as the amount of flat space that is taken up by the front or back surface, or side, of the backpack. They will trace the outline of each backpack and compare.

Practice: Playing *Make My Design*

In lesson 9-5, children compare the capacity and weight of backpacks.

K.MD.A.2 Students will compare the weight, or how heavy each backpack is. Informally introduce **pound** as a unit used to describe weight. Next suggest that it would be interesting to find out how much the backpacks can hold, or their **capacity**.

Practice: Playing Subtraction games
*Subtraction Top It-EM game (ConnectED)
*Disappearing Train-EM game (ConnectED)

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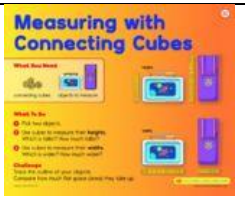

9-4
*How Much Will It Hold pg.104 (*Common Core Math in Action)*

*How Many Shoes Am I? pg.103 (*Common Core Math in Action)*

9-5
*Weigh Everything You Can pg.104 (*Common Core Math in Action)*

*Science connection-allow students to compare capacity using measuring cups and spoons

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Lesson 9-6 *Roll and Record with Numeral Dice* (game)
K.OA.A.1 Represent addition and subtraction.
K.OA.A.2 Solve addition and subtraction word problems within 10.
K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects.
K.OA.A.5 Fluently add and subtract within 5.

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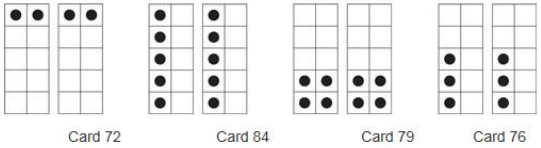
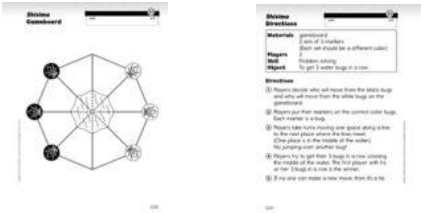
Kindergarten Section Nine	
Connections/Notes	**Resources**
Children add dice numerals and record the experiences. **K.OA.1** Students will roll 2 dice and find the totals. They will record their addition expressions on their own grid. Practice: Creating a Concrete Model of the Classroom	  9-6 *Fluency Number Talk Activities-*Number Talk* pg. 68-96 *Roll and Record w/Dot Dice or Numeral Dice game-EM game (ConnectED) *Give the Dog a Bone activity in Kindergarten Resources folder, Section 9
Lesson 9-7 Making Classroom Maps (Open Response and Reengagement – 2 days) **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.B.5 Model shapes in the world by building shapes from components.**	
 This map clearly shows six locations in the room (from left to right, top to bottom): the sink, cubbies, door, rug, numbered tables, and windows. All the locations shown are correctly placed in relation to each other. Day 1: Children create classroom maps. **K.G.B.5** Students will use shapes to make a map of their classroom. Day 2: Children compare and contrast their classroom maps and use them to follow directions. Practice: Playing *Car Race*-activity card or play@ConnectED 	Day 2: 

Kindergarten Section Nine	
Connections/Notes	**Resources**
Lesson 9-8 Uniform Weights on a Pan Balance **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children use a pan balance to explore units of weight. Students will balance items with the weights and record their findings using pictures, numbers, and words. Practice: Counting On and Back From Higher Numbers	 9-8 *Counting On Trains activity in Kindergarten Resources folder, Section 9
Lesson 9-9 Measuring Time in Seconds **K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.** **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.**	
Children use tools to measure and compare lengths of time in seconds, and make connections to counting. Students will be introduced to a **stopwatch**. They will learn that second is a unit of time used by people around the world; explain that a **second** means the same length of time no matter where you live or what tool you use to measure it, so using seconds allows us to measure time in a way that everyone understands. Practice: Solving Number Stories	9-9 *Monster Squeeze-EM game (ConnectED) *Addition and subtraction number stories-*Problem Solving with Math Models* by Dr. Nicki Newton
Lesson 9-10 Doubles on Double Ten Frames **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.** **K.OA.A.5 Fluently add and subtract within 5.**	
Children add and represent "doubles" addition facts. **K.OA.A.1** Students will use Quick Looks cards to practice doubles.	*Fluency Number Talk Activities-*Number Talk* pg. 68-96 *Roll and Record with Doubles- EM game (ConnectED)

Kindergarten Section Nine	
Connections/Notes	**Resources**
 Practice: Following Treasure Maps	*Flashcards to 20 Using Ten Frames in Kindergarten Resources folder, Section 9 
Lesson 9-11 *Fishing for Ten* (game) **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.**	
Children play a game to practice finding combinations that add to 10. **Introduce *Fishing for Ten*** by comparing it to the popular card game, *Go Fish.* Explain that in this version, instead of requesting a card to match one in their hand, children "fish" for a number to complete a pair that adds to 10. For example, if a child has the number 7, he or she would ask another player for a 3 because 7 + 3 = 10. (Children may recognize that more than two cards could be used to total 10, but in this version of the game, they are looking for number pairs that add to 10.) Demonstrate the game by playing with three children as the class watches and helps. As you model, emphasize that children are looking for pairs of cards that add to 10, not for matching pairs. Practice: Taking Quick Looks at Ten Frames	 9-11 *Ten Bears on a Bus/Penny Plate-EM game (ConnectED) *Fish Out of Water Counting Activity in Kindergarten Resources folder, Section 9 *Ten Frame activities in Kindergarten Resources folder, Section 9
Lesson 9-12 Math Celebration Preparation and Lesson 9-13 Math Celebration **K.CC.A.1 Count to 100 by ones and tens.** **K.CC.A.2 Count forward beginning from a given number.** **K.CC.A.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20.** **K.CC.B.5 Count to answer "How many?" questions about as many as 20 things.** **K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.** **K.OA.A.1 Represent addition and subtraction.** **K.OA.A.2 Solve addition and subtraction word problems within 10.**	

Kindergarten Section Nine	
Connections/Notes	**Resources**
K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way using objects. **K.OA.A.4 For any number from 1-9, find the number that makes 10 when added to the given number.** **K.OA.A.5 Fluently add and subtract within 5.** **K.MD.A.1 Describe measurable attributes of objects.** **K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which has "more or less of" the attribute.** **K.MD.B.3 Classify objects into given categories, count the number of objects, and sort categories by count.** **K.G.A.1 Describe objects in the environment using names of shapes & positions.** **K.G.A.2 Correctly names shapes regardless of orientation or size.** **K.G.B.3 Identify shapes as two-dimensional or three-dimensional.** **K.G.B.4 Analyze and compare two and three dimensional shapes.** **K.G.B.5 Model shapes in the world by building shapes from components.** **K.G.B.6 Compose simple shapes to form larger shapes.**	
In lesson 9-12, children apply math skills to prepare for a celebration. In lesson 9-13, children apply counting, operations, measurement, and geometry skills during a class celebration.	9-12 Shismia game in Kindergarten Resources folder, Section 9  **Spaghetti and Meatballs for All*-by Marilyn Burns
End of Year Assessment (Optional)	