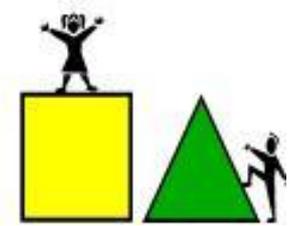


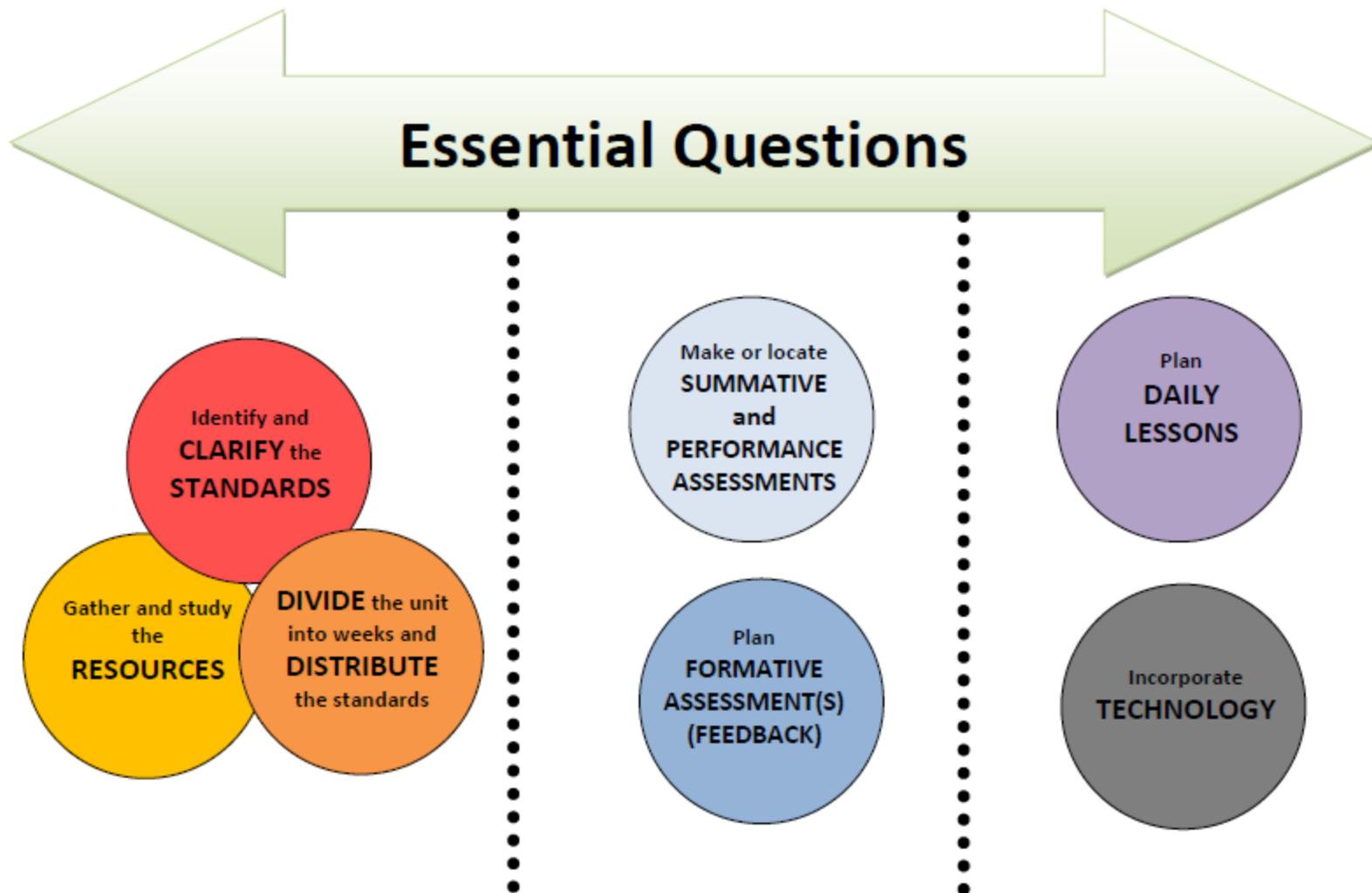
Solidifying the Foundations; Analyzing, Comparing, Creating & Composing Shapes



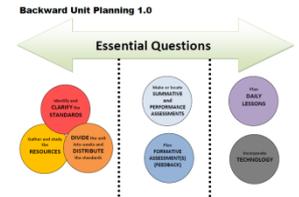
Unit Planning Team:

Robin Dover (OW), Jenny Griffin (FT), Hanna Lewellen (BV),
Kasey Benson (OW), Haylee Pierce (JM)

Backward Unit Planning 1.0



Essential Questions



4th Quarter (p. 1 of 2)

Solidifying the Foundations; Analyzing, Comparing, Creating, and Composing Shapes

Students will solidify their understanding of how we use numbers to represent quantities and to model simple joining and separating situations. Students continue to compose and decompose the numbers 11-19 into ten ones and some further ones, gaining a solid foundation for place value. Students will demonstrate fluency of addition and subtraction within 5. Student will also build on their understanding of shapes. They will analyze and compare 2-D and 3-D shapes, create shapes, and discover that shapes can be composed of smaller shapes.

Essential Questions:

How can different strategies be helpful when solving problems?

What defines a shape?

How can I use shapes to make new shapes?

Why is ten an important number?

Counting and Cardinality	
Know number names and the count sequence.	
K.CC.1	Count to 100 by ones and by tens. <i>Minimum Quarterly Expectations: Rote count by 1's to 100; Rote count by 10's to 100</i>
K.CC.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
K.CC.3	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). <i>Minimum Quarterly Expectations: Write numbers 0-20</i>
Count to tell the number of objects	
	Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.4	a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
	b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
	c. 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 arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. <i>Minimum Quarterly Expectations: Count to answer "how many" questions about as many as 20 objects...</i>
Compare numbers	
K.CC.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, e.g., by using matching and counting strategies. (Include groups with up to ten objects)
K.CC.7	Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions

How can different strategies be helpful when solving problems?

What defines a shape?

How can I use shapes to make new shapes?

Why is ten an important number?

Counting and Cardinality

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and by tens.

Minimum Quarterly Expectations: Rote count by 1's to 100; Rote count by 10's to 100

K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Minimum Quarterly Expectations: Write numbers 0-20

Count to tell the number of objects

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

c. Understand that each successive number name refers to a quantity that is one larger.

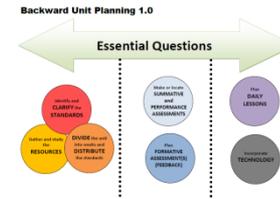
K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Minimum Quarterly Expectations: Count to answer “how many” questions about as many as 20 objects...

Compare numbers

K.CC.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, e.g., by using matching and counting strategies. (Include groups with up to ten objects)

K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.



Identify and
CLARIFY the
STANDARDS

4th Quarter Expectations:

- Count to 100 by ones
- Count by 10's to 100
- Write numbers 0-20
- Count to answer “how many” questions about as many as 20 objects

K.CC.5- Students should be given ample opportunities to count with objects arranged in different ways... line, arrays, circles up to 20 and scattered up to 10.

K.CC.7- Students should be moving from comparing sets of objects to determining greater/less than with only written numerals given.

Operations and Algebraic Thinking

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

K.OA.1	Represent addition and subtraction with objects, fingers, mental images, drawings (details not needed), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
K.OA.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
K.OA.3	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
K.OA.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
K.OA.5	Fluently add and subtract within 5.

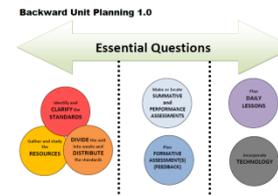
Numbers and Operations in Base Ten

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

K.NBT.1	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
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K.OA.2, KOA.3,
K.OA.4, K.NBT.1

The big idea within these standards is the number 10. (This work should be continued as a major focus from third quarter.)



Identify and
CLARIFY the
STANDARDS

Geometry

Analyze, compare, create, and compose shapes. *

K.G.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
K.G.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
K.G.6	Compose simple shapes to form larger shapes. <i>For example, “Can you join these two triangles with full sides touching to make a rectangle?”</i>

*Builds upon prior knowledge and experiences with identifying and describing 2-D and 3-D shapes, as well as classifying and counting objects in categories. (K.G.1, K.G.2, K.G.3, & K.MD.3)

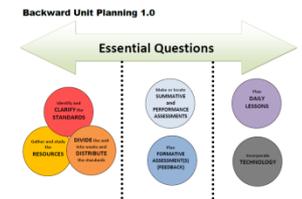
K.G.4

Students need experiences with different orientations and sizes of 2-D and 3-D shapes to compare them to themselves as well as other shapes.

K.G.5, K.G.6

As students work with creating models for shapes, begin with simple shapes and use them to create 3-D shapes.

K.G.6 should also incorporate composing simple 2-D shapes into more complex 2-D shapes.



Connecting to First Grade Big Ideas:

Seeing 10 as a unit, not 10 ones

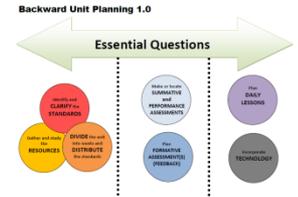
Using place value understanding and properties of operations to add and subtract within 100

Problem-solving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions within 20

Writing and counting to 120 from any given number

Addition and subtraction fluency within 10

Identify and
CLARIFY the
STANDARDS



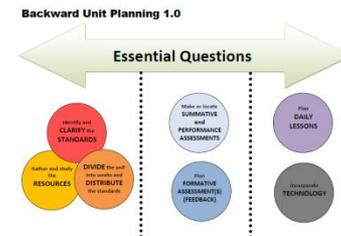
Vertical Exploration

Where are they going?

How does the work in your grade level extend into the grade level above?

What do you need to emphasize this quarter to ensure they are ready for the next grade level?

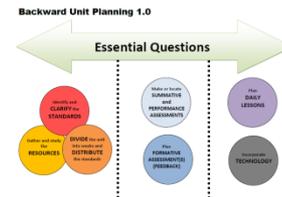
Week	Standards	Structure/Resources
1	<p>K.CC.1, K.CC.3, K.CC.4, K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5</p> <p>K.CC.5 K.CC.6/K.CC.7</p> <p>K.NBT.1</p> <p>K.G.4</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense! CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images Comparing numbers CGI-Compare problem types It Makes Sense! CGI-Multiplication and measurement division STEM lessons and Other Resources (see following slides)</p>
2	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5</p> <p>K.CC.5 K.NBT.1</p> <p>K.G.4</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images It Makes Sense! CGI-Multiplication and measurement division STEM lessons and Other Resources (see following slides)</p>
3	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5</p> <p>K.CC.5 K.CC.6/K.CC.7</p> <p>K.NBT.1</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images Comparing sets of objects CGI-Compare problem types It Makes Sense! CGI-Multiplication and measurement division</p>



DIVIDE the unit into weeks and **DISTRIBUTE** the standards

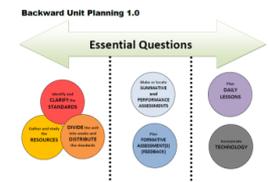
Geometry Standards are the only new standards this quarter and will be assessed for the first time this year (K.G.4, K.G.5, K.G.6)

Week	Standards	Structure/Resources
4	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.5 K.NBT.1</p> <p>K.G.5</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images It Makes Sense! CGI- Multiplication and measurement division STEM lesson and Other Resources (see following slides)</p>
5	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.5 K.CC.6/K.CC.7</p> <p>K.NBT.1</p> <p>K.G.5</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images Comparing sets of objects CGI-Compare problem types It Makes Sense! CGI- Multiplication and measurement division STEM lesson and Other Resources (see following slides)</p>
6	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.5 K.NBT.1</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images It Makes Sense! CGI- Multiplication and measurement division</p>



DIVIDE the unit into weeks and **DISTRIBUTE** the standards

Week	Standards	Structure/Resources
7	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.6/K.CC.7</p> <p>K.CC.5 K.NBT.1</p> <p>K.G.6</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Comparing sets of objects CGI-Compare problem types Dot images It Makes Sense! CGI- Multiplication and measurement division STEM lesson and Other Resources (see following slides)</p>
8	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.5 K.NBT.1</p> <p>K.G.6</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images It Makes Sense! CGI- Multiplication and measurement division STEM lesson and Other Resources (see following slides)</p>
9	<p>K.CC.1, K.CC.3, K.CC.4 K.CC.2 K.OA.1/K.OA.2 K.OA.3/K.OA.4 K.OA.5 K.CC.5 K.CC.6/K.CC.7</p> <p>K.NBT.1</p>	<p>Counting Collections Games for early number sense Ten frames-It Makes Sense!-Games using Ten Frames CGI – JCU, SRU, SCU, PPW-WU, PPW-Both Parts unknown Dot images Comparing sets of objects CGI-Compare problem types It Makes Sense! CGI- Multiplication and measurement division</p>



DIVIDE the unit into weeks and **DISTRIBUTE** the standards

Lesson Resources

Counting and Cardinality

K.CC.1 - K.CC.7

Comparing Problem Situations (K.CC.6, K.CC.7)

Promoting Base Ten Understanding (K.NBT.1, K.CC.1, K.CC.2, K.CC.3, K.CC.4, K.CC.5)



It Makes Sense! Using Ten Frames to Build Number Sense
This book provides meaningful support for using ten-frames. Ten-frames provide a great model for helping students anchor to the landmark number ten and develop all aspects of number sense. It also provides reproducible and assessments to use in the classroom. The book is divided into 3 sections: R-Routines; G-Games; P-Problem Solving

Organizing and Collecting: The Number System

Organizing and Collecting: The Number System
*This unit will be used throughout the year.
This unit explores the number system by inviting children to examine ways to determine and represent quantities. As children inventory and record quantities of items in their classroom, they are supported by using grouping strategies to keep track (such as making packs of five or ten). Class charts depict the number of packs and loose items, and place value patterns in the number system become the focus. (K.NBT.1, K.CC.1-5)

Big Book Connection: The Maslopy Family - YouTube Video

Lessons, Tasks and Investigations The following lessons were written by the Georgia Department of Education and correspond with the standards in this unit. Some lessons may require additional days.

Counting and Cardinality (K.CC.1-5)

Got Data Revisited (11-20)

Numerals-Pictures-Words (11-20)

The Cardinal Cup revisited

Let's Count to 20 In this series of 6 six lessons, students make groups of 10 to 20 objects, connect number names to the groups, compose and decompose numbers, and use numberals to record the size of a group. Visual, auditory, and kinesthetic activities are included in each lesson. This series of lessons is most appropriate for students typically in the first grade. (K.CC.4, K.CC.5, K.CC.1, K.CC.2, K.CC.3)

Number Trains These activities from HandsOn.com provide students hands-on manipulation and creation of numbers using ten frames and other manipulatives. Use numbers appropriate to quarterly assessments. (K.CC.4, K.CC.5, K.CC.1, K.CC.2, K.CC.3)

Understanding Addition and Subtraction

K.OA.1 - K.OA.5

Addition and Subtraction Situations (K.OA.2)

Addition and Subtraction Problem Types (K.OA.2, K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5)

Mastering the Basic Math Facts: Addition and Subtraction by Susan O'Connell and John Sant'Giovanni
This book explores ways to support all students in mastering addition and subtraction facts. It focuses on big ideas, strengthening students' understanding of math operations, developing strategic thinking and provides varied and engaging practice tasks to promote fluency. (K.OA.1 - K.OA.5)

Resource Guide for Using Mastering the Basic Math Facts in Kindergarten



Bunk Beds and Apple Boxes: Early Number Sense
This unit's focus is early number sense. This unit was also listed in 2nd quarter. Children explore various arrangements of the same quantity and are supported to develop compensation and equivalence. This unit introduces the arithmetic rack (rekenrek, abacus) as a calculating frame that consists of two rows of ten beads with two sets of five in each row. (K.OA.1 - K.OA.5)

Big Book Connection: The Steppover - YouTube Video

What is an Arithmetic Rack? It is a tool that consists of two rows of ten beads with two sets of five in each row.

***If you do not have rekenreks, you can easily create your own. Directions: [How to Make a Rekenrek](#)
Pinterest: [Rekenrek](#)
Or, if you would like to purchase a classroom set of Rekenreks...[EAI Education](#)

Minilessons for Early Addition and Subtraction: A Yearlong Resource

This yearlong resource includes 78 minilessons you can choose from throughout the year. These minilessons are designed to be used at the start of your math instructional time and last for 10 to 15 minutes.



It Makes Sense! Using Ten Frames to Build Number Sense
This book provides meaningful support for using ten-frames. Ten-frames provide a great model for helping students anchor to the landmark number ten and develop all aspects of number sense. It also provides reproducible and assessments to use in the classroom. The book is divided into 3 sections: R-Routines; G-Games; P-Problem Solving

Yearlong Addition and Subtraction Tasks, Activities or Games (K.OA.1-5)

Developing Base Ten Understanding

K.NBT.1

Promoting Base Ten Understanding (K.NBT.1, K.CC.1, K.CC.2, K.CC.3, K.CC.4, K.CC.5)



Organizing and Collecting: The Number System
*This unit will be used throughout the year.
This unit explores the number system by inviting children to examine ways to determine and represent quantities. As children inventory and record quantities of items in their classroom, they are supported by using grouping strategies to keep track (such as making packs of five or ten). Class charts depict the number of packs and loose items, and place value patterns in the number system become the focus. (K.NBT.1, K.CC.1-5)

Lessons, Tasks and Investigations The following lessons were written by the Georgia Department of Education and correspond with the standards in this unit. Some lessons may require additional days.

Foundations for Place Value (K.NBT.1) *activities include K.CC.1-5 standards

Race to 100 Pennies (revisited)

Ten Frame Talk About (11-12)

Ten Frame Talk About (13-19)

Helping Kindergartners Make Sense of Numbers to 100
article by Jaslow and Jacobs

Story Problems to Help Children Understand Numbers to 100
(table 1 from article with example problems to pose)

Story Problems in Word and SMART Notebook:

Groups of 10 and some ones Word SMART

Join Result Unknown 10+11 Word SMART

Join Result Unknown-20+20 Word SMART

Separate Result Unknown to make 10 Word SMART

Separate Result Unknown to make 10 - part 2 Word SMART

Separate Result Unknown single digit from decade number Word SMART

Mixing 10's and 1's Word SMART

Grouping by multiples of 10 (K.OA.1) Word SMART



Geometry

K.G.4 - K.G.6 (understanding and use of K.G.1, K.G.2, and K.G.3 are also necessary for this unit but not scored)

Investigating Shapes - Triangles In these 4 lessons from Illuminations, students identify characteristics of triangles, manipulate electronic geoboards to construct triangles, and name the triangles' relative locations. In addition, through music and observation, students identify triangles in their environment. (standards addressed: K.G.2)

I've Seen that Shape Before Students learn the names of solid geometric shapes and explore their properties. At various centers, they use physical models of simple solid shapes, including cubes, cones, spheres, rectangular prisms, and triangular prisms. Note: students are not expected to read the "name cards" words for the shapes - substitute matching shape cards to real life objects with those shapes (standards addressed: K.G.3)

Squares are Special Rectangles Students compare and sort rectangles and special rectangles called squares learning to distinguish between the two using their attributes. They will use manipulatives to form squares and rectangles. They will also identify and take pictures of squares and rectangles around school and make a class book. (standards addressed: K.G.4)

Shape Attribute Posters Create attribute lists/anchor charts for groups. Encourage students to share as many properties about each shape as they can. Properties must apply to all the shapes in the group. Use words such as sides, angles, and other special attributes. Allow students to explore the various shapes while creating these lists. (standards addressed: K.MD.3) **Triangle patterns** **Quadrilateral Patterns 1** **Quadrilateral Patterns 2**

Puzzling Relationships Students develop their understanding of spatial relationships and develop problem-solving skills using Tangrams and Interactive tangram puzzles. (K.G.6) **Tangram Patterns**

What's My Rule? Give students shapes or cut-out shapes and have them sort the shapes. Compare and contrast students' sorting. Ask "What's my rule?" Students will share/explain the reasoning for their sorting to find the rule and describe the qualities their sorting groups have in common. (K.G.4) **Triangle patterns** **Quadrilateral Patterns 1** **Quadrilateral Patterns 2**

Making Triangles with a Chinese Jump Rope Group students in sets of three and use a Chinese Jump Rope to create a shape. Ask "What shape did you make? How do you know?" Then, have one student move and the other two stay still. Ask "Is it still a triangle? What stayed the same? What changed?" Repeat this several more times and continue asking students those questions. This activity can be done in groups of 4 to create quadrilaterals. (K.G.4) Don't have a Chinese Jump Rope? Use this virtual tool instead.

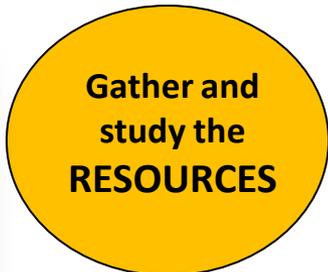
What is a Triangle? Class discussion guide, background information and assessment of student understanding of What is a Triangle. (K.G.4) **Triangles Set 1** **Triangles Set 2**

Building Shapes Students create 3D shapes with clay and and toothpicks (K.G.5)

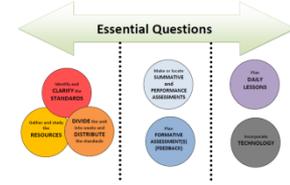
Building Geometric Shapes Students use toothpicks and marshmallows or gumdrops to build 2D and 3D shapes. (K.G.5)

How to Build with Marshmallows and Toothpicks Ideas for using marshmallows and toothpicks for building (K.G.5)

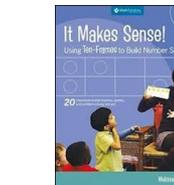
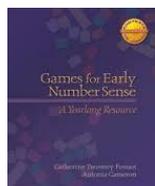
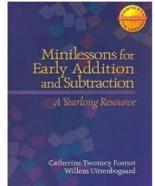
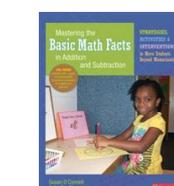
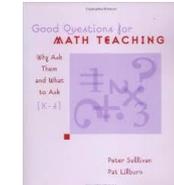
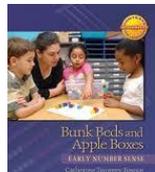
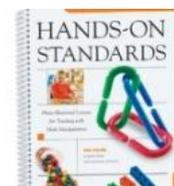
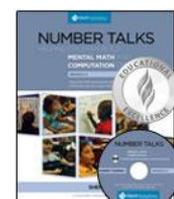
Building Activities using Geometric Shapes This page provides several activities to support students in modeling shapes in the world and composing shapes. (K.G.5, K.G.6)



Backward Unit Planning 1.0



CGI Addition & Subtraction Problem Types			
Join	Start with 7 apples. How many more apples do you need to have 10 apples?	Start with 10 apples. How many apples do you need to have 7 apples?	Start with 7 apples. How many apples do you need to have 10 apples?
Separate	Start with 10 apples. How many apples do you need to have 7 apples left?	Start with 10 apples. How many apples do you need to have 7 apples left?	Start with 10 apples. How many apples do you need to have 7 apples left?
Compare	Start with 10 apples. How many apples do you need to have 7 apples left?	Start with 10 apples. How many apples do you need to have 7 apples left?	Start with 10 apples. How many apples do you need to have 7 apples left?



Resources for Geometry Standards (K.G.4, K.G.5, and K.G.6)

Gather and
study the
RESOURCES

[STEM lesson](#) Marshmallow Towers (K.G.5)

[STEM lesson](#) Design a Creature (K.G.5, K.G.6)

[Marshmallow Shapes](#) (K.G.5, K.G.6)

2D shapes song – Harry Kindergarten –

<https://www.youtube.com/watch?v=gepEhdl7418>

3D Shapes song – Harry Kindergarten -

<https://www.youtube.com/watch?v=2cg-Uc556-Q>

K.G.6 – use die cut to cut out shapes – each shape has a different color, glue larger shape in interactive notebook and glue smaller shapes on top

Create anchor charts for each shape: 2D and 3D

[Making Shapes](#)

[Edible Shapes](#)

See more lessons on
the **Teacher Created
Resources** page on
our website

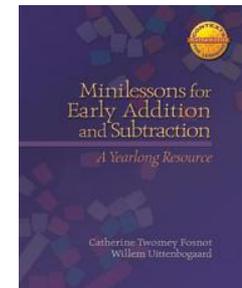
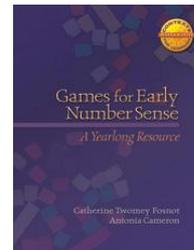
Resources for Counting and Cardinality Standards (K.CC.1-7)

Gather and
study the
RESOURCES

Contexts for Learning:

Minilessons for Early Addition and Number Sense (K.CC.4-7, K.OA.1-5)

Games for Early Number Sense (K.CC.4-7)



Number Trees These activities from Heidisongs.com provide students hands-on manipulation and creation of numbers using ten frames and other manipulatives. Use numbers appropriate to quarterly expectations. (K.CC.4, K.CC.5, K.CC.1, K.CC.2, K.CC.3)

Number Trays In this series of activities, students are working with comparing sets of objects with matching and counting strategies. (K.CC.6)

The Counting Cup (K.CC.1)

Resources for Number and Operations in Base Ten Standard (K.NBT.1)

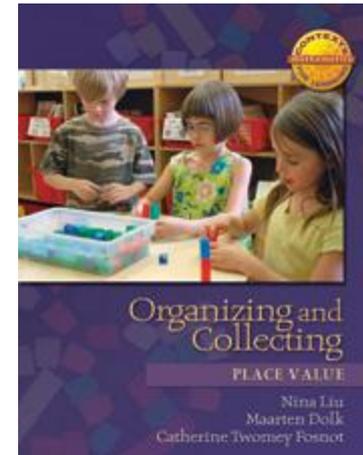
Gather and
study the
RESOURCES

Contexts for Learning:

Organizing and Collecting: The Number System (K.NBT.1)

CGI: Multiplication and Measurement Division Problem Types using 10s to develop place value understanding

Number Rods (extend to representing ten and some ones)



Linda Jaslow's Article: Helping Kindergarteners make sense of numbers to 100

Gather and
study the
RESOURCES

We need to:

- *Inquire into children's thinking**
- *Value existing ideas**
- *Challenge and extend understanding**
- *Support growth**

**Counting by tens (as a rote chant)
is often unconnected to any
quantities. Therefore, we need to
work to develop ten-to-ten
correspondence among our students.**



Pose problems that promote base ten understanding:

**Many students know that $20 = 10 + 10$,
but NOT that $11 = 10 + 1$ or $24 = 10 + 10 + 4$.**

**They need more experiences
working with purposeful problems.**

**We want our students to see ten as a group,
and then use that information to help
solve problems more effectively.**

Pose problems that promote base ten understanding:

- *Groups of 10's problems**
- *Problems designed to help children compose
new numbers from a 10 and some 1's**
- *Decompose numbers into 10's and 1's**
 - *Mixing 10's and 1's**
- *Counting by 10's from a non-decade number**

Resources for Operations and Algebraic Thinking (K.OA.1-5)

Gather and
study the
RESOURCES

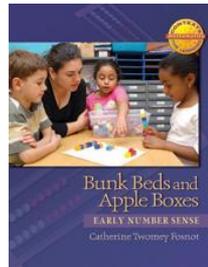
[Fluency Resources](#) (K.OA.5)

Dot Images Smart Board (K.OA.5)

<http://cloud.rpsar.net/edocs/Math/FluencyResources/quickimagesk2.notebook>

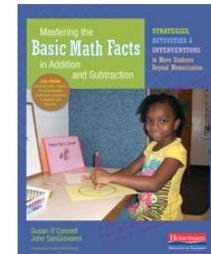
[Mental Math Practice](#)

Contexts for Learning:
[Bunk Beds and Apple Boxes](#)

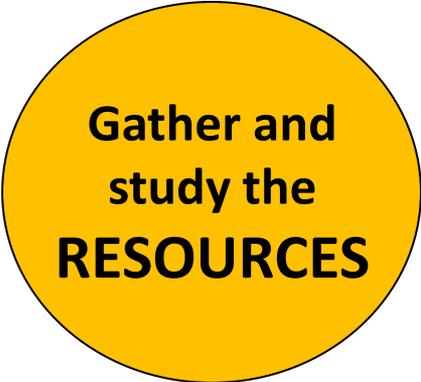


[Mastering the Basic Math Facts in Addition and Subtraction](#) (K.OA.5)

[It Makes Sense: Using Ten-Frames to Build Number Sense](#)



Resources for Incorporating the Standards for Mathematical Practice



Gather and
study the
RESOURCES

Mathematical Standards Posters:

<http://cloud.rpsar.net/edocs/Math/StandMathPractice/Mathematical%20practices.pdf>

Mathematical Standards "I can" statements for pocket charts:

<http://cloud.rpsar.net/edocs/Math/StandMathPractice/I%20can%20statements%20for%20Mathematical%20Practices.pdf>

Mathematical Standards Rubric:

[http://cloud.rpsar.net/edocs/Math/2ndGrade/CIResources/Student Math Practice Rubric.pdf](http://cloud.rpsar.net/edocs/Math/2ndGrade/CIResources/Student%20Math%20Practice%20Rubric.pdf)

Mathematical Practices - Questioning:

<http://cloud.rpsar.net/edocs/Math/StandMathPractice/MPTeacherQuestionStarters.pdf>

SAMPLE WEEKLY PLANNING BREAKDOWN...

Majority of Lesson Time Each Day:

1-2 Days of Counting Collections (*K.CC.1-7*)

2-3 Days of Problem-Solving with CGI (*K.CC standards, K.OA standards, and K.NBT.1 standard*)

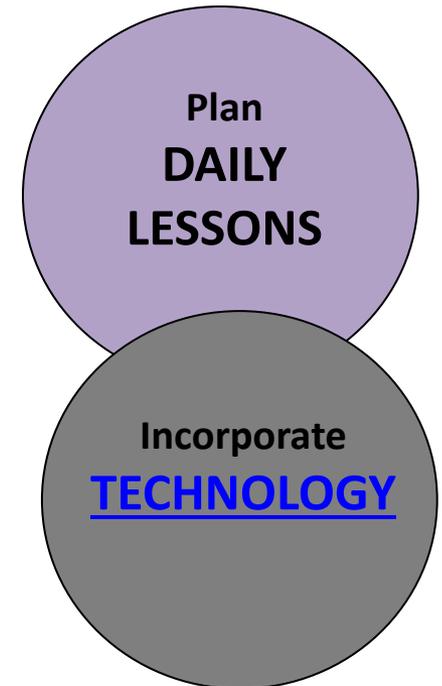
1-2 Days Focused on Geometry Standards on weeks that apply (*K.G.4-6*)

Other Pieces to Build into Math Block Each Day (*multiple standards*):

Games and Activities to Reinforce Concepts

Minds on Math (*choose several slides per day*)

Number Talks (*including dot images, ten frames, and work with number concepts*)

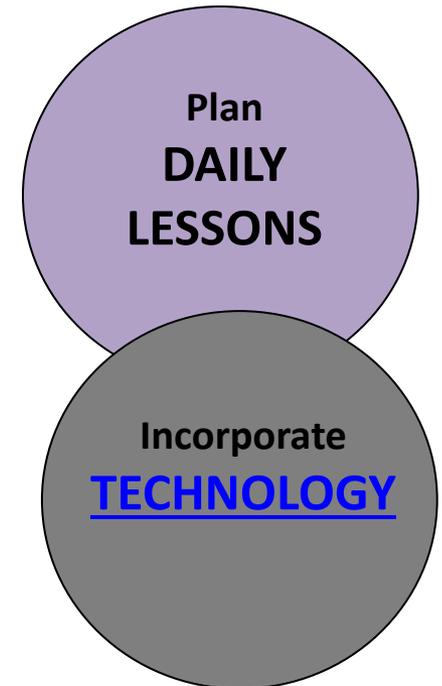


MORE LESSONS AND RESOURCES ARE AVAILABLE ONLINE WITHIN THE UNIT...

Solidifying the Foundations; Analyzing, Comparing, Creating, and Composing Shapes

(BE SURE TO LOOK IN EACH SUBCATEGORY ON THE LEFT
SIDE TO FIND VARIOUS RESOURCES)

Another great website with lesson resources separated by
domain and standard.... http://betterlesson.com/common_core



Options for Assessment – Available online for Unit 4

[Shapes assessment](#)

[Counting objects to 20](#)

[Strategy Recording Forms](#)



Make or locate
SUMMATIVE
and
PERFORMANCE
ASSESSMENTS

See [Teacher Created Resources](#)
for More Geometry Assessments



Options for Assessment – Available online for Unit 4

Assessment Options from Illustrative Mathematics:

Tasks addressing K.CC.1

[Assessing Counting Sequences Part 1](#)

Tasks addressing K.CC.2:

[Assessing Counting Sequences Part 1](#)

[Assessing Counting Sequences Part 2](#)

Tasks addressing K.CC.3:

[Assessing Writing Numbers](#)

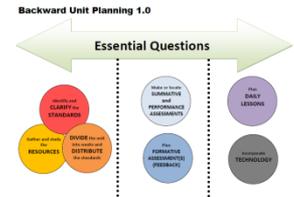
Tasks addressing K.CC.1, K.CC.2, K.CC.3:

[Assessing Reading Numbers](#)

[Assessing Sequencing Numbers](#)

For more ideas, visit

www.illustrativemathematics.org



Make or locate
**SUMMATIVE
and
PERFORMANCE
ASSESSMENTS**



Teacher Created Resources pages!!!



RESOURCES



Beth Pesnell

Elementary Curriculum Specialist

bpsnell@rps.k12.ar.us

