

Adapted from *Everyday Mathematics (Kindergarten, Unit 2)*

Section 1

I. Big Ideas

- Exploring 2-dimensional shapes such as circles, triangles, squares and rectangles and understanding that these shapes have specific attributes to define them.
- Having the ability to develop mathematical arguments in regards to what properties make a circle a circle, a square a square, a triangle a triangle and a rectangle a rectangle.
- To reinforce spatial relations vocabulary and concepts in regards to how they relate to the real world.
- Develop an understanding how to count as well as develop an understanding of numeral recognition skills.
- To lay the groundwork for number writing through tactile and kinesthetic activities.
- To introduce estimation and have students understand that estimating is more than simply guessing; it is based on number sense.
- To introduce real-world number stories.
- Understanding how math is a part of our everyday lives.

II. Related Skills and Objectives

- **N.ME.00.01** Count objects in sets up to 30.
- **N.ME.00.02** Use one-to-one correspondence to compare and order sets of objects to 30 using phrases such as "same number", "more than", or "less than"; use counting and matching.
- **N.ME.00.03** Compare and order numbers to 30 using phrases such as "more than" or "less than."
- **N.ME.00.04** Read and write numbers to 30 and connect them to the quantities they represent.
- **N.ME.00.06** Understand the numbers 1 to 30 as having one, or two, or three groups of ten and some ones.
- **N.MR.00.08** Describe and make drawings to represent situations/stories involving putting together and taking apart for totals up to 10; use finger and object counting.
- **G.GS.00.02** Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group.
- **G.GS.00.03** Create, describe, and extend simple geometric patterns.
 - Strand 1: Number & Operations
 - Domains: meaning, notation, place value, are comparisons (ME); number relationships and meaning of operations (MR)

 - Strand 4: Geometry
 - Domain: Geometric shape, properties, and mathematical arguments (GS)

III. Objectives

- Students will be able to recognize different shapes such as circles, triangles, squares and rectangles as well as describe their characteristics and properties.
- Students will be able to count to ten as well as read and write their numbers 1-10.
- Students will know spatial concepts and use spatial vocabulary as they apply to everyday situations.
- Students will be able to count to 19 as well as read and write their numbers 1-19.
- Students will be able to identify and build upon patterns.
- Students will identify coins and understand that each coin has a specific name as well as specific properties.
- Students will be able to use number sense to make estimations.

IV. NCTM Process Goals

- Number and operations
- Algebra
- Geometry
- Measurement
- Data Analysis and Probability
- Reasoning and Proof
- Communication
- Connection
- Representation

Section 2

I. Pre-Assessment

For the pre-assessment I had my students complete three short tasks. For the first task they had to write their numbers 1-20. For the second task, they had to read their numbers 1-20. For the third task, they had to identify 6 shapes (circle, square, triangle, rectangle, oval and hexagon).

II. Pre-Assessment Results

For the first assessment, the majority of my students could only write their numbers up to 10 or the mid teens. Three higher-level students wrote their numbers all the way to 20. Some medium students made it to the mid teens. One of my ELL students could not write any of the numbers and another ELL student could only make it to the number 2. For the second assessment the majority of my students could read all of the numbers to me or at least up to the mid-teens. Again, two of my ELL students who speak virtually no English could only name the first few numbers for me. For the third task, the nearly all of my students could identify the square, circle, rectangle and triangle. The majority could identify the oval and a few could identify the hexagon. Once again, my same two ELL students struggled and could not name any of the shapes.

III. Using the Pre-Assessment Results

Knowing that nearly all of my students can count and read to 10 or the mid teens lets me know I do not have to spend a lot of time reviewing these concepts. For my ELL students, they will work on counting in their ELL class and I will work with them as well. However, realizing that a lot of my students could not count or read their numbers up to 20 lets me know I need to incorporate numbers above ten in more of my lessons. Likewise, knowing that most of my students know what a circle, triangle, square and rectangle are, lets me know I can spend less time focusing on these shapes and work on some different ones (such as oval, hexagon, pentagon, etc.). Also, it lets me know I can take the shapes

(circle, triangle, square and rectangle) and try some higher-level math problems with them.

IV. Summative Assessment

I realized that *Everyday Mathematics* does not incorporate summative assessments for their kindergarten math curriculum and after speaking with my CT, the other kindergarten teacher and other kindergarten intern, we came to the conclusion that summative assessments are not very feasible for kindergarteners, but rather periodic assessments would work best (as they have done in the past). Thus, I will assess each individual student after the second, eleventh and last lesson to see if they know how to count and read numbers 1-20 as well as whether or not they know their shapes and properties of specific shapes.

V. Formative Assessments

Formative assessments will take place continually throughout the unit plan, during every lesson. These assessments will be via individual student work, whole class discussions, small group discussions, as well as careful observations. Per my initial assessments, I will specifically look for their ability to count and read numbers past ten, as well as shape recognition and knowledge of the properties of specific shapes. I will take note of how these acquired skills have (or have not) transferred throughout the unit.

VI. Assessment Plan Analysis

- My unit plan completely focuses on the benchmarks noted in the *Everyday Mathematics* text. My assessments match the majority of my objectives in regards to counting and shapes. The other objectives were not necessarily assessed because of time constraints, for one, as well as the fact that this unit is intended to provide students with an introduction of the other concepts (estimation, story problems, addition and subtraction, etc.) as well as build upon these concepts throughout the unit.

-To succeed in the assessments students have to know how to count and read numbers one through twenty as well as recognize certain shapes and be able to describe specific attributes of these shapes. To help students do well on the assessments as well as meet the unit objectives, the students will participate in a wide variety of activities such as whole class discussions, exploration, hands-on activities, group work/partner work, and individual work. We will also do some writing activities to help students improve their fine motor skills, as this is a huge struggle for them right now in regards to writing. The parts of the assessments I expect to be the easiest for students will be the formative assessments, as they do not necessarily know they are being assessed. The individual assessments could be a bit more intimidating for my students as they may feel uncomfortable or feel pressure having to be assessed by a teacher. The formative assessments will be done in a variety of ways (individual work, group work, whole class discussions, etc.) as to allow me to see which ways of instruction work best for students, which students are getting it and which are not. This way, I can adjust my instruction as necessary to fit their learning needs.

-As my students cannot read (and barely write at this point), thorough explaining and modeling will be essential to my students achieving success in regards to meeting my objectives.

-In order to help all students who learn in different ways to succeed, I will use a variety of assessment methods (i.e. tactile, reading/writing, auditory, visual and kinesthetic).

Section 3

I. Differentiating instruction to meet the needs of all students

The book used for mathematics, *Everyday Mathematics*, provides support for differentiated instruction using a variety of activities. For example, the *Everyday Mathematics* curriculum ties in art, music, literacy, science and kinesthetic activities to the math lessons.

In regards to the differentiation that will be necessary to fit the needs of all students, the specific needs that will require differentiation will revolve around my ELL students (especially those who do not speak any English), my low students, and those students who seem to have a very difficult time staying focused. In my class I have 11 ELL students, two of which do not speak any English. One of the students, although she does not speak much English, is considered a high student academically and does catch on very quickly. For the most part, she models what the students around her are doing. She also responds very well to extensive modeling (i.e.- using a lot of hand motions, pointing to things while I am giving instructions, etc.) as well as when I use a lot of pictures or objects during instructions/lessons, or when I write things out on the board while giving instructions/lessons. She always raises her hand to participate and usually supplies a response that is relevant, if not correct, to what we are discussing at the given point in time. Furthermore, she does not shy away from working with other students in whole group, small group, or partner situations and the students have become very comfortable working with her as well. Thus, I am fairly confident that, in terms of differentiated instruction for her needs, as long as I continue to use extensive modeling, repetition, pictures and objects as examples, and write things out, she will do well with this unit.

However, it is my other ELL student, who does not speak any English, who I am more concerned about. For the majority of the day, he seems to be lost. He asks to go to the bathroom at least 7-10 times a day (especially during whole group discussions, class instructions, story time, etc.). My CT and I are fairly certain he is doing this because he is lost and bored. For him, modeling and repetition work some of the time, but for the most part he just seems lost. He is very hesitant to participate in whole class discussions and especially does not like working with partners or in small groups. He does, however, respond very well to working one-on-one with my CT, or myself, or the ELL instructors. For his needs, I feel it would be best if I try to do as much one-on-one work with him as possible. For example, the majority of the lessons in this unit involve being together as a class initially for instructions and discussion and then either having the students go off on their own to work, or in small groups or partners. When the students are to go off on their own, I will do my best to spend as much time as possible with him to give him instructions; he seems to respond very well to working with me as he speaks Spanish and I speak the language well enough to help him, most of the time. Although he may not necessarily like working with partners or in small groups, I don't want to remove him from this situation entirely. Kindergarten is a crucial time to develop social skills and although I can only imagine how scary it must be for him not speaking the same language as the other students, I don't want to isolate him from the other students either. Thus, I will try to make him as comfortable as possible when working with the other students. In other words, I will try to pair him with the other Spanish speaking students, make myself readily available for him when he is working with partners/small groups, etc. The ELL instructors also have a copy of our EDM book and as she sometimes takes him out of class during our math time, they will be working with him on this unit as well.

Modeling, repetition, and using pictures and objects, is not only beneficial to my ELL students, but it has also proven to be very beneficial to my lower students, as well as those students who have a hard time staying focused. I have found that most of my low students are visual learners and they benefit greatly from modeling as well as using pictures and objects as examples during instruction and lessons. I have found that a lot of them respond very well to working with students at a similar level or at a

medium level, as opposed to being placed with the higher students. When placed with students at their level, I have noticed the lower students are much more willing to attempt the activities because they have someone they can relate to in terms of academic level; they do not feel as if they are inferior to their partner/group members. Furthermore, by placing the lower students with other students at their level, I can modify the lesson/activities for them, if need be, and not worry about the lesson being too easy for one of the other partners/group members.

In particular, I have 2 students who seem to have a very difficult time staying focused during lessons/instructions/activities. The first, is the above mentioned ELL student. The second is another ELL student who does speak English, but has developed somewhat of a negative reputation among the other students as when he cannot communicate verbally with the other students, he resorts to pushing and shoving. Thus, many of the other students are reluctant to work with him. I have established a fairly strong and stable relationship with said student and will work with him one-on-one as much as possible, but again, I do not want to remove him entirely from partner/small group settings because this is a crucial time for his social development. Since the beginning of the year, him, my CT and myself have had several conversations about the proper way to express our feelings and not resorting to pushing and shoving. Furthermore, we have gotten him to understand that if he does have a conflict with another student or feels as if he is being misunderstood by another student (per the language barrier), he can rely on us as a "translator" or "mediator" of sorts. He has also responded very well to sitting right next to me during instruction/whole class discussions, as when he starts to "drift off" or "go off into his own little world", I put my hand on his shoulder as a gentle reminder as to where his attention should be. Finally, as he will also be pulled out sometimes for ELL during math lessons, he will be working with the ELL instructors on this math unit as well.

II. Supporting struggling students and those ahead of the grade level

There are a wide variety of things to do to support struggling students. First and foremost, I have found that in kindergarten repeated modeling is one of the most effective ways to help struggling students. Furthermore, using whole group work, small group work and partner work offers opportunities for the students to work together and help one another. I will also provide one-on-one assistance to those students who need it for particular activities as well as provide multiple opportunities for them to practice what we have learned during a particular lesson (whether it be via extra worksheets, incorporating what we have learned in math into our centers for the week, working one-on-one with students during free time, etc.). This is not meant to serve as a form of punishment for those students who do not "get it", but rather to serve as a tool to better help them grasp the big ideas we are trying to cover. Most importantly, I hope to spend additional one-on-one time with the students who seem to be struggling and modifying my instructional strategies, as necessary, to help the students to better understand. Furthermore, as explained above, my lower students seem to respond best when working with students of the same academic ability, it will be easier for me to modify my lessons and activities for these students if the lessons/activities prove too difficult for them. For those students performing ahead of the grade level I will challenge them more during lessons and classroom discussion as well as ask them more high-level questions.

III. Supporting students with IEP's

We have one student in the course that has an IEP for issues with articulation. However, he was recently exited from the speech program per his improvement in the speech program over the past year. However, I have found the most effective way to work with him is to allow him more wait-time when answering questions, as he needs more time than most students to think about what he is going to say as well as to actually say it.

IV. Supporting ELL students

I have found that the ELL students in my class benefit most from direct and repeated modeling, using objects and pictures as examples during instructions and lessons and writing things up on the board during instructions/lessons. Furthermore, I have found these students benefit greatly from partner and small group work (especially with peers who speak the same language and/or are at a similar academic level), as they can receive one-on-one attentions as well as see other students modeling what they are supposed to be doing for a particular activity. Furthermore, these students will be working with the ELL instructors during some of the math lessons for further help.

Section 4

Part A - Schedule

| Day | GLCE Teaching Objective | Activity | Materials | Big Idea |
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| 10/26 | <p>GLCEs: G.GS.00.02 Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group.</p> <p>Objectives: - Students will be able to recognize different shapes such as circles, triangles, squares and rectangles as well as describe their characteristics and properties.</p> <p>Mathematical Process Goals: -Geometry -Communication -Connection</p> | <p>2.1 Shape Collages <i>(Everyday Mathematics, p.88-89)</i>.</p> <p>-Students will identify and describe each of the four large cardboard shapes during a whole class discussion. Students will then look through magazines, newspapers, and other catalogs for objects that have those four shapes and cut them out to glue on the large cardboard shapes and make collages.</p> | <p>-Large cardboard square, circle, triangle, and rectangle -Magazines and catalogs -Scissors -Glue -Markers</p> | <p>-Students will understand that shapes are all around us and used in our everyday lives.</p> |
| 10/27 | <p>GLCEs: GLCEs: G.GS.00.02 Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group.</p> <p>Objectives: - Students will be able to recognize different shapes such as circles, triangles, squares and rectangles as well as describe their characteristics and</p> | <p>2.2 Shapes by Feel <i>(Everyday Mathematics, p. 90-91)</i></p> <p>-Using the large poster board shape collages from lesson 2.1, students will review each shape's name and properties via whole class discussion. One shape at a time, students will be able to explore the attribute blocks while describing each shape. Students will</p> | <p>-Attribute blocks (rectangle, circle, triangle, square) -Feely box -Large poster board shape collages from lesson 2.1.</p> | <p>-Students will understand that each shape has its own specific name as well as unique attributes.</p> |

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| | <p>properties.</p> <p>Mathematical Process Goals:</p> <ul style="list-style-type: none"> -Geometry -Reasoning and Proof -Communication | <p>discuss the shapes' attributes while the teacher records their answers on the back of that particular shape's cardboard collage from lesson 2.1. The teacher will then place matching pairs of attribute blocks into the feely box and then have students reach in and pick out two shapes that feel the same. Class discussion will revolve around the teacher prompting the students "How did you know that the shapes were the same when you pulled them out of the feely box?" This will prompt a discussion about the shapes' attributes.</p> | | |
| 10/28 | <p>Objectives: Students will know spatial concepts and use spatial vocabulary as they apply to everyday situations.</p> <p>Mathematical Process Goals:</p> <ul style="list-style-type: none"> -Geometry -Connection | <p>2.3 Which Way Do I Go? (Everyday Mathematics, p. 92-93)</p> <p>-Students will engage in a game of "Simon Says" where the teacher uses spatial vocabulary to instruct the students what to do with their blocks.</p> <p>Ex- "Simon says, place your block on top of your head. Simon says place your block below your foot. Simon says place your block next to your friend."</p> <p>Students will then sing and act out the song "Going on a Bear Hunt"</p> | -Small blocks | -Students will understand spatial concepts and know how to use spatial vocabulary as they are a part of our everyday lives. |

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| | | which focuses on spatial vocabulary (under, over, around, through). | | |
| 10/29 | <p>GLCEs: N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent.</p> <p>Objectives: Students will be able to count to ten as well as read and write their numbers 1-10.</p> <p>Mathematical Process Goals: -Number and operations</p> | <p>2.4 Spin a Number Game (Everyday Mathematics, p. 94-95)</p> <p>-Teacher will review numbers 1-10 with students using number flashcards.</p> <p>-In pairs, students will play the "Spin a Number" game. Students will take turns spinning the spinner (spinner uses numbers 1-10) and moving their bear that many places on the game board. The first student to reach the end is the winner.</p> | <p>-Game Master (<i>Math Masters</i>, p. 136, Spinner Game worksheet) -Paperclips -Pencils -Small plastic teddy bears</p> | <p>-Students will know and recognize numbers 1-10 and be able to apply this knowledge to real life situations.</p> |
| 10/30 | <p>GLCEs: G.GS.00.03 Create, describe, and extend simple geometric patterns.</p> <p>Objectives: Students will be able to identify and build upon patterns.</p> <p>Mathematical Process Goals: -Algebra -Connection</p> | <p>2.5 Patterns all Around (Everyday Mathematics, p. 96-97)</p> <p>-Teacher will read and discuss the book <i>Patterns Everywhere!</i> With students. Students will then explore the classroom for patterns. The teacher will then make a list of all the places they found patterns for all students to see.</p> | <p>-Book <i>Patterns Everywhere!</i> -Dry erase board and marker</p> | <p>-Students will understand that patterns can be found everywhere in our everyday lives.</p> |
| 11/2 | <p>GLCEs: N.MR.00.08 Describe and make drawings to represent situations/stories involving putting together and taking apart for totals up to 10; use finger and object counting.</p> <p>N.ME.00.01 Count objects in sets up to 30.</p> | <p>2.6 Playful Oral Counting Games (Everyday Mathematics, p. 98-99)</p> <p>-Students will participate in a variety of whole class oral counting games.</p> <p>-Ex. Students will sit in a</p> | <p>-None needed</p> | <p>-Students will understand how to count by 1's up to the number 10, out loud.</p> |

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| | <p>Objectives: Students will be able to count to ten as well as read and write their numbers 1-10.</p> <p>Mathematical Process Goals: -Number and Operations</p> | <p>circle. The teacher will make up a motion (ex- wiggling fingers in air) for the students to do while they count. One student will start the game by saying "1." Going clockwise, each child will say the next number to count upwards. Every time the students get to the number ten, that student will begin a new motion. Counting will begin again at 1.</p> <p>-Ex. Singing and acting out the song "Five Little Monkeys"</p> | | |
| 11/3 | <p>GLCEs: N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent.</p> <p>Objectives: -Students will be able to count to 19 as well as read and write their numbers 1-19.</p> <p>Math Process Goals: -Number and Operations -Representation</p> | <p>2.7 Preparation for Number Writing <i>(Everyday Mathematics, p. 100-103)</i></p> <p>-Teacher will tell students a number of action stories (ex- you've blown bubbles on a wand, trace the bubbles all around you) and encourage the students to use large hand and arm movements to draw the actions (strokes) in the air. Students will then practice drawing the strokes on white boards (circular strokes, curved strokes, vertical strokes, horizontal strokes, diagonal strokes). Teacher will then go over number formations with the students and have them practice writing them on the whiteboard.</p> | <p>-Individual dry erase boards -Dry erase board markers</p> | <p>-Students will understand how to make different stroke formations as they pertain to writing numbers.</p> |
| 11/4 | <p>GLCEs: G.GS.00.02 Identify, sort, and classify objects by</p> | <p>2.8 Matching Coin Game <i>(Everyday Mathematics, p. 104-105)</i></p> | <p>-Teaching Aid <i>(Math Masters,</i></p> | <p>-Students will understand that each coin has it's</p> |

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| | <p>attribute and identify objects that do not belong in a particular group.</p> <p>Objectives:</p> <ul style="list-style-type: none"> - Students will identify coins and understand that each coin has a specific name as well as specific properties. <p>Mathematical Process Goals:</p> <ul style="list-style-type: none"> -Number and Operations -Measurement -Data Analysis and Probability -Reasoning and Proof | <p>In small groups, students will take turns rolling the coin money cube, finding the corresponding coin and putting it in the correct section of their trays. After ten rounds, the winner will be determined by who has the most quarters. The students will then compare how many of each type of coin they have as well as discuss the different properties of each coin.</p> | <p>p. 104)</p> <ul style="list-style-type: none"> -Plastic nickels, dimes, pennies, and quarters -eight-cup muffin tins -Several one-inch cubes | <p>own name, specific physical properties.</p> <p>Students will understand that these coins are a part of our everyday lives as well as how they are used in our everyday lives.</p> |
| 11/5 | <p>GLCEs:</p> <p>N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent.</p> <p>N.ME.00.01 Count objects in sets up to 30.</p> <p>N.ME.00.02 Use one-to-one correspondence to compare and order sets of objects to 30 using phrases such as "same number", "more than", or "less than"; use counting and matching.</p> <p>N.ME.00.03 Compare and order numbers to 30 using phrases such as "more than" or "less than."</p> <p>Objectives:</p> <p>Students will be able to count to ten as well as read and write their numbers 1-10.</p> <p>Mathematical Process Goals:</p> <ul style="list-style-type: none"> -Number and Operations -Algebra -Representation | <p>2.9 Number Board <i>(Everyday Mathematics, p. 106-107)</i></p> <p>-Together, using the number board, teachers and students will count out the appropriate number of stickers to go on each row of the blank number board. Once the board is complete, we will discuss as a class, what we notice about the board. We will then discuss how the numbers 0-9 can be used to write any counting number, no matter how large. (ex- 16 is formed using a 1 and a 6). The students will then name some big numbers while the teacher records them on the whiteboard for all to see. The students will then have a chance to complete their own number boards using stickers.</p> | <p>-Teaching Master (<i>Math Masters</i>, p. 11)</p> <p>-Stickers</p> | <p>Students will understand that numbers can be represented with concrete materials. Students will also understand that the digits 0-9 can be used to write any number.</p> |

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| 11/6 | <p>GLCEs:</p> <p>N.ME.00.01 Count objects in sets up to 30.</p> <p>N.ME.00.02 Use one-to-one correspondence to compare and order sets of objects to 30 using phrases such as "same number", "more than", or "less than"; use counting and matching.</p> <p>N.ME.00.03 Compare and order numbers to 30 using phrases such as "more than" or "less than."</p> <p>N.ME.00.04 Read and write numbers to 30 and connect them to the quantities they represent.</p> <p>N.ME.00.06 Understand the numbers 1 to 30 as having one, or two, or three groups of ten and some ones.</p> <p>Objectives:</p> <ul style="list-style-type: none"> -Students will be able to count to ten as well as read and write their numbers 1-10. - Students will be able to count to 19 as well as read and write their numbers 1-19. <p>Mathematical Process Goals:</p> <ul style="list-style-type: none"> -Number and Operations -Representation | <p>2.10 Tricky Teens (<i>Everyday Mathematics</i>, p. 108-109)</p> <p>-As a class, we will discuss what numbers come after 10 (specifically 11-19). We will use the classroom to find examples of where these numbers can be found (calendar, clock, etc.). Using flash cards with the numbers 1-19, we will then discuss what is the same and different about all the numbers. Specifically, we will point out how all teen numbers are written with the numeral "1" going first. The teacher will then mix-up the flash cards and the students will help the teacher put them back in order on the carpet.</p> | <p>--Flashcards numbered 1-19</p> | <p>-Students will understand that teen numbers are all written with the digits 0-9, with the numeral "1" coming first. Students will be able to identify numbers 1-19, understand the sequence of numbers 1-19, as well as count orally from 10-19.</p> |
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Part B - Extra Activities & Extension Activities

-If there is extra time during the lessons the *Everyday Mathematics* includes a portion of each lesson called "Teaching Options" which provides multiple activities to supplement each lesson. Each lesson includes art connections, literacy connections, cooking connections, movement connections, etc. The library at Red Cedar Elementary contains all of the books to go along with the *Everyday Mathematics* lessons. For example, the book *Circus Shapes*, by Stuart J. Murphy, is recommended for lesson 2.1 and the book *April Rabbit*, by David Cleveland, is recommended for lesson 2.6

It has been my experience thus far in my kindergarten class, the students respond very well to the literacy connections and the movement connections. For my ELL students, the *Everyday Mathematics* does include some ideas for working with ELL students. However, I have noticed that what seems to

work best with the ELL students in my class, is to use an immense amount of modeling and repetition.

-For those students who are struggling with the material, the *Everyday Mathematics* includes an "Extra Practice" section. This section includes additional activities to support those students who need more practice with the lesson material. Most of these activities involve partner or group work/engaging games so the students have additional support in their learning.

-For those students who need an extra challenge with the lessons, *Everyday Mathematics* includes a section entitled "readiness" which assesses if the students have really learned the material in the lesson. Furthermore, I intend on providing additional activities for my higher-level students.

*For example, for the 2.1 and 2.2 where we are discussing shapes (triangle, rectangle, square, circle), I have noticed that some of my higher-level students have already mastered these shapes and even know some of the 3D shapes. Thus, I will allow them time to explore, identify and describe the properties of spheres, cylinders, cubes, etc.

Section 5

Sample Outline for a Daily Lesson Plan

Date: 10-26-09

Overall lesson topic/title and purpose: 2.1 Shape Collages (*Everyday Mathematics*)

Rationale: This lesson is intended for students to have the opportunity to recognize different shapes such as circles, triangles, squares and rectangles as well as describe their characteristics and properties. Students will have the opportunity to discuss circles, triangles, rectangles, and squares as well as each shapes' properties via whole class discussion.

GLCEs:

G.GS.00.02 Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group.

Goals/Objectives for today's lesson:

Objectives:

- Students will find and sort shapes
- Students will identify and name shapes
- Students will describe attributes of shapes

Mathematical Process Goals:

- Geometry
- Communication
- Connection

Materials & supplies needed:

- Large cardboard square, circle, triangle, and rectangle
- Magazines and catalogs
- Scissors
- Glue
- Markers

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| <p><i>Procedures and approximate time allocated for each event</i></p> <p>• <i>Introduction to the lesson (5 minutes)</i> I will begin by inviting all of my students to join me on the carpet. I will wait until everyone is sitting quietly and I have my students' full attention (this can usually be done using a clapping pattern I have established as part of our daily routine when I need to get the students' attention). I will then say:</p> <p>-“Today we’re going to be talking about different shapes and their properties. Can anyone name any shapes they may know?” ALLOW 5-10 SECONDS OF WAIT TIME -<i>Anticipated Possible Answers:</i> circle, square, triangle, rectangle</p> <p>-If the students struggle to think of answers, I will suggest they look around the room for ideas. ALLOW 30-60 SECONDS OF WAIT TIME</p> <p>-To motivate the students to be engaged in the lesson I will tell them that we will be having a brief class discussion on a few different shapes and their properties and afterward we will be doing a very special activity the shapes we will be discussing as well as cutting and pasting. By not giving away all of the details of the activity right away, I am hoping to keep my students engaged and intrigued (As they love cutting and pasting, I know they will be excited when they actually find out what we are doing for the activity).</p> <p>-I will then suggest that we discuss proper etiquette for a classroom discussion. I will ask them prompting questions such as: -“How do we let each other know we have something to say (this is a big one as shouting-out is something we are currently working on in kindergarten)?” -“What do we do when someone else is talking? What do good listeners do when someone else is talking?” -“Is it ok to make fun of other students for their answers?”</p> <p>This way, the students set the guidelines for our discussion, rather than being told how to behave during a classroom discussion.</p> <p>• <i>OUTLINE of key events during the lesson (20 minutes)</i></p> <p>For the discussion portion of the lesson, I will cut out, from poster board, a large neon yellow circle, a large neon green square, a large neon pink rectangle and a large neon orange. The kids love anything bright and colorful, so I felt using the neon poster board may also help to keep them engaged during the lesson.</p> <p>-First, I will pull out the circle and put it on the easel for the students to see. I will then ask: -“Does anyone know the name of this shape?” ALLOW 5-10 SECONDS WAIT TIME</p> | <p><i>Academic, Social and Linguistic Support during each event (see Planning for Diverse Learners on LAET website):</i></p> <p>The students I am concerned about most are my 3 ELL students who do not speak any English and my 2 students who seem to have a very difficult time staying focused during longer lessons/ discussion lessons. To accommodate the needs of my ELL students I will speak slowly and try to look directly at them when speaking so they know I am including them in our discussion. I will also be sure to carefully enunciate my words. I will repeat my questions once or twice as well. For my students who have trouble staying focused, I have found it works best if I ask them to come and sit up-front by me (I usually ask them this quietly and individually before I begin a lesson as to not call them out in-front of the class. I also tell them it's so they will have a great view of the board and will be able to hear everything I say, clearly.) I will make sure to make eye contact with them throughout the lesson as to try and keep them focused and engaged. Furthermore, I have found it works best, if when they become restless or unable to focus, if I lay a gentle hand on their shoulder as a subtle reminder and to bring them back in to the lesson.</p> <p>I have found that my ELL students still raise their hands frequently, even if they have no idea what's going on. I will be sure to call on them and give them proper wait time and try to carefully listen to their answers (sometimes they try to speak in English, usually mimicking another student or</p> |
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- *Anticipated Possible Answers:* circle, ring, oval, I don't know

-I will then encourage the students to draw the shape in the air using large arm motions.

-To start our class discussion about the circle, I will ask students what to share what they know about circles. To guide their conversation, I will ask them prompting questions such as:

- "How many sides does a circle have? How do you know?"

- "Are the edges curved or straight?"

- "How many corners does a circle have? How do you know?"

- "Can you think of any objects that look like or remind you of circles?"

ALLOW 5-10 SECONDS WAIT TIME FOR EACH QUESTION

I will also ask for volunteers to come-up and point out the characteristics of the circle. This would also serve as a way for me to see where any misconceptions like (i.e. if the student thinks the circle has corners or does not know what "curved edge" means, etc.), it will also provide a visual for the students to correct their own misconceptions.

Next I will pull out the square and put it on the easel for the students to see. I will then ask.

- "Does anyone know the name of this shape?"

ALLOW 5-10 SECONDS WAIT TIME

- *Anticipated Possible Answers:* square, box, rectangle, I don't know

-I will then encourage the students to draw the shape in the air using large arm motions.

-To start our class discussion about squares, I will ask students what to share what they know about squares. To guide their conversation, I will ask them prompting questions such as:

- "How many sides does a square have? How do you know?"

- "Are the edges curved or straight?"

- "How many corners does a square have? How do you know?"

- "Can you think of any objects that look like or remind you of squares?"

- "How are squares and circle alike? How are they different?"

ALLOW 5-10 SECONDS WAIT TIME FOR EACH QUESTION

I will also ask for volunteers to come-up and point out the characteristics of the square. Again, this would also serve as a way for me to see where any misconceptions as well as provide a visual for the students to correct their own misconceptions. Furthermore, this will help those students who may not understand what an "edge" or "side" or "corner" is as they will be able to actually see where these things are on the square and thus, what specific properties a square has.

something I have just said, and most times they speak back to be in their native language). I try to nod my head when they are speaking and keep eye contact with them so they know I think what they are saying is valuable and important. Even if I cannot necessarily understand them or answer them back I still smile and give them a thumbs-up (or say "gracias" to my Spanish speakers) to let them know I appreciate their input. This way I am not necessarily telling them they were right or wrong, but that I appreciate their effort.

When discussing the name of the shapes and their attributes, I will be sure to write the names on the shapes to show my ELL student. This is also another reason why I have the students come up to point out the shapes' attributes... to model for the ELL students and give them a visual aid.

When we are discussing the directions for their special activity, I will model cutting out the shapes from the magazines and placing them on the corresponding poster board shapes for the ELL students as well.

Next I will pull out the rectangle and put it on the easel for the students to see. I will then ask:

-“Does anyone know the name of this shape?”

ALLOW 5-10 SECONDS WAIT TIME

-Anticipated Possible Answers: rectangle, box, square, I don't know

-I will then encourage the students to draw the shape in the air using large arm motions.

-To start our class discussion about rectangle I will ask students what to share what they know about squares. To guide their conversation, I will ask them prompting questions such as:

-“How many sides does a rectangle have? How do you know?”

-“Are the edges curved or straight?”

-“How many corners does a rectangle have? How do you know?”

-“Can you think of any objects that look like or remind you of rectangle?”

-“How are rectangles like squares? Like circles? How are they different?”

ALLOW 5-10 SECONDS WAIT TIME FOR EACH QUESTION

I will also ask for volunteers to come-up and point out the characteristics of the rectangle. Again, this would also serve as a way for me to see where any misconceptions as well as provide a visual for the students to correct their own misconceptions. Furthermore, this will help those students who may not understand what an “edge” or “side” or “corner” is as they will be able to actually see where these things are on the rectangle and thus, what specific properties a rectangle has.

Next I will pull out the triangle and put it on the easel for the students to see. I will then ask.

-“Does anyone know the name of this shape?”

ALLOW 5-10 SECONDS WAIT TIME

-Anticipated Possible Answers: triangle, arrow, pointy thing, I don't know

-I will then encourage the students to draw the shape in the air using large arm motions.

-To start our class discussion about triangles I will ask students what to share what they know about triangles. To guide their conversation, I will ask them prompting questions such as:

-“How many sides does a triangle have? How do you know?”

-“Are the edges curved or straight?”

-“How many corners does a triangle have? How do you know?”

-“Can you think of any objects that look like or remind you of squares?”

-“How are triangles like squares? Like rectangles? Like circles? How are they different.

ALLOW 5-10 SECONDS WAIT TIME FOR EACH QUESTION

I will also ask for volunteers to come-up and point out the characteristics of the triangle. Again, this would also serve as a way for me to see where any misconceptions as well as provide a visual for the students to correct their own misconceptions. Furthermore, this will help those students who may not understand what an "edge" or "side" or "corner" is as they will be able to actually see where these things are on the square and thus, what specific properties a triangle has.

I have found that kindergarteners love to "guess." Whether they are right or wrong, they are always willing to raise their hands and at least "guess" what the answer may be, even if they have no idea. I have also found the best way to respond to these answers is to first say "That's a very interesting answer, why do you think that?" This way, I can at least try to get some idea where they are coming from. Secondly, so as to not make them feel bad or directly tell them they are wrong I say "Does anyone else have another or different idea?" I have found this usually handles the situation without hurting feelings or making an example out of any one student.

After the discussion is over, I will tell the students we are going to move on to our very special project. I will tell the students that they are going to go back to their seats and for the next ten minutes they are going to look through magazines and catalogs for objects that are circular, rectangular, square and triangular. I will leave the large poster board shapes laid-out on the rug for them to reference. I will tell them to cut out the shapes so we can glue them on the corresponding poster board shape to make a shape collage.

I will then dismiss them to go back to their tables and get started.

• ***Closing summary for the lesson (5 minutes)***

To get my students attention, I have a clapping pattern I do which they repeat back to me. This is their way of knowing it's time to stop what they are doing and pay attention to the teacher.

After ten minutes of working, I will ask the students to wrap-up what they are doing and clean-up their tables. I will ask them to quietly come sit on the rug when they are ready. I will display the large poster board shape collages on the wall for all of the students to see. I will then call on a few students to share with me what objects they found and what shape they represented. I will also ask the students about the properties of the objects they found (straight or curved edges, how many sides, corners, etc.) so as to summarize the main points of the lesson.

• ***Transition to next learning activity***

I will then tell the students we will be continuing to discuss these shapes and their properties in tomorrow's math lesson. I will suggest the students pay close attention to the shapes around them at home

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| <p>and look for objects that are circular, triangular, rectangular and square shaped so they can share them with us tomorrow during our math lesson.</p> | |
| <p>Assessment The assessment will ultimately take place at three spots throughout the lesson. First, I will take note of what the students say during our initial class discussion about shapes. I will pay special attention to those who participate a lot and those who do not participate at all. I will be looking for whether or not students can name the shapes, tell me if their edges are straight or curved, tell me how many sides the shape has, how many corners the shape has as well as point them out to me on the actual cardboard shape.</p> <p>Secondly, I will observe the students when they are cutting out the shapes and gluing them on to the corresponding collage. I will pay close attention to those students who I may feel do not totally grasp the concept, especially my ELL students. I will also pay close attention to the objects they classify as squares and the objects they classify as rectangles, as these may easily be confused at this age. I will ask them questions as they are cutting the shapes out and gluing them onto the collages such as "How did you know that was a square/circle/triangle/rectangle?" etc.</p> <p>Finally, our wrap-up discussion where we share our findings will also serve as an assessment as the students will have to defend their choices in regards to the objects they selected and which collage they placed them on.</p> | <p>Academic, Social, and Linguistic Support during assessment</p> <p>For the assessment portion, I will be sure to do a lot of modeling and repeating for my ELL students, as well as re-writing the names of the shapes on the board. I will be sure to have the students point to the objects they put on the shape collage boards, so the ELL students can see what they are talking about.</p> <p>My main assessment for my ELL students will be to look at which objects they cut out to place on the collage boards as well as which collage board they placed the objects on.</p> |

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| <p>Sample Outline for a Daily Lesson Plan</p> <p>Date: 11-4-2009</p> <p>Overall lesson topic/title and purpose: 2.8 Matching Coin Game (<i>Everyday Mathematics</i>)</p> <p>Rationale: This lesson is intended to give students the opportunity to explore and identify coins via a small group activity. This lesson is also intended to help students understand that each coin has a specific name as well as specific properties.</p> <p>GLCEs: G.GS.00.02 Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group</p> <p>Goals/Objectives for today's lesson: Objectives: -Students will compare numbers of coins. -Students will recognize and match pictures of coins with actual coins. -Students will identify coin features and begin to use coin names.</p> |
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Mathematical Process Goals:

- Number and Operations
- Measurement
- Data Analysis and Probability
- Reasoning and Proof

Materials & supplies needed:

- Teaching Aid (*Math Masters*, p. 104)
- Plastic nickels, dimes, pennies, and quarters
- eight-cup muffin tins
- Several one-inch cubes

Procedures and approximate time allocated for each event

• Introduction to the lesson (5-7 minutes)

I will begin by inviting all of my students to join me on the carpet. I will wait until everyone is sitting quietly and I have my students' full attention (this can usually be done using a clapping pattern I have established as part of our daily routine when I need to get the students' attention). I will then say:

-“Today we’re going to be talking about coins. Think back to the money book we read a couple weeks ago (I will show them the book to refresh their memories). Can anyone name any coins?”

ALLOW 5-10 SECONDS WAIT TIME

Anticipated Possible Answers: nickel, dime, quarter, penny, I don't know

Next, I will show the students the coins, one by one and ask them if they know the names of each of the coins. After giving the students have had an opportunity to name the coins, I will tell them the appropriate names of each of the coins.

• OUTLINE of key events during the lesson (15 minutes)

Next, I will tell the students that they will be given the opportunity to play a game with their table groups. I will tell them that each table will be given a dice with pictures of each of the coins on it. I will also tell them that each child will also be given a muffin tin. I will tell them that there will be a bowl of coins in the middle of the table and that is where it is to remain. I will instruct the students that the designated table helper (their jobs are designated at the beginning of each month, this is an easy and fair way to decide who goes first without having the kids argue over it) will get to roll the dice first. I will instruct the students that what ever coin is facing up on the side of the dice they roll is the coin they will need to find and put in it's appropriate spot in their muffin tray (the muffin tins will be labeled with pictures of each of the coins, designating where each coin goes). I will tell the students they will play this for ten minutes and I will set a timer so they will know when the game is over. I will tell the students I will give them further instructions after the timer rings.

Academic, Social and Linguistic Support during each event (see Planning for Diverse Learners on LAET website):

The students I am concerned about most are my 3 ELL students who do not speak any English and my students who are more reserved and less likely to participate in group discussions. To accommodate the needs of my ELL students I will speak slowly and try to look directly at them when speaking so they know I am including them in our discussion. I will also be sure to carefully announce my words. I will repeat my questions once or twice as well.

To accommodate my more reserved students, I will encourage students to go around the table and take turns talking during their group discussion. This way, everyone will have an opportunity to share their thoughts and ideas and the conversation will not necessarily be dominated by one or two students. However, I want the students to feel as sharing their thoughts and ideas is a choice and that they are not forced to do it if they do not want to. I do not want anyone to feel uncomfortable.

I have found that my ELL students

The table groups were assigned at the beginning of the month by my CT and myself. We assigned the table groups after we had felt we had enough time to get to know each of our students, not only as learners, but as individuals. We tried to divide up the students as "equally" as we felt possible. For example, we have 1-2 ELL students at each table, an even mix of outgoing/shy students at each table, even mix of higher level/lower level students at each table. This way, all of our learners and "individuals" could benefit from one another both academically and socially.

I will then suggest that we discuss proper etiquette for a small group discussion. I will ask them prompting questions such as:

- "How do we let each other know we have something to say (this is a big one as shouting-out is something we are currently working on in kindergarten)?"

- I will suggest that instead of raising hands (as it is not entirely necessary in a small group setting), that we just take turns talking and listening to one another and do not talk over each other.

- "What do we do when someone else is talking? What do good listeners do when someone else is talking?"

- "Is it ok to make fun of other students for their answers?"

I will also suggest that a good way to decide who will speak when, is to have students go around the table one at a time and take turns speaking. This way the conversation is not dominated by one or two outspoken students, and all students have an opportunity to share their ideas if they want to.

I will then dismiss the students to go back to their seats.

STUDENTS WILL BE ALLOTTED 10 MINUTES TO PLAY

After ten minutes, when the timer rings, I will use my clapping pattern to get the students' attention. I will then instruct the students that they are going to examine the coins they have and discuss their findings with their table groups. I will give them discussion ideas by suggesting they:

- Count how many of each coin they have and compare with their classmates (who has more and/or less of each coin).

- Examine each of the coins and discuss characteristics such as coin color, size (which ones are bigger/smaller/fatter/thinner), edges (smooth/rigid), pictures on the front and back of the coins, etc.

- I will give them 5-7 minutes to have their discussion.

- I will be going around monitoring each table's discussions. For the most part my plan is just to listen and not interfere. The only time I plan to interject is to get a table back on track, guide them in the right direction, ask them prompting questions such as the ones listed below, etc.

• Closing summary for the lesson (5 minutes)

I will begin by inviting all of my students to join me on the carpet. I will

still raise their hands frequently, even if they have no idea what's going on. I will be sure to call on them and give them proper wait time and try to carefully listen to their answers (sometimes they try to speak in English, usually mimicking another student or something I have just said, and most times they speak back to be in their native language). I try to nod my head when they are speaking and keep eye contact with them so they know I think what they are saying is valuable and important. Even if I cannot necessarily understand them or answer them back I still smile and give them a thumbs-up (or say "gracias" to my Spanish speakers) to let them know I appreciate their input. This way I am not necessarily telling them they were right or wrong, but that I appreciate their effort.

We have had the discussion before with all of our students, that some of the children do not speak English and that we may not understand their native language, but that every student is equally as important as is their input. Thus, we have agreed that as a class we will encourage all of our friends to participate and give all of our friends the opportunity to speak. We have also discussed how it is very helpful for all students if we speak slowly, make eye contact when speaking to someone, repeat ourselves if necessary and point to things when necessary.

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| <p>wait until everyone is sitting quietly and I have my students' full attention (this can usually be done using a clapping pattern I have established as part of our daily routine when I need to get the students' attention). I will then say:</p> <p>-"Who would like to share with my what you talked about in your groups?"</p> <p>ALLOW 5-10 SECONDS WAIT TIME</p> <p>Anticipated Possible Answers: how many coins we had, the color of the coins, the shape of the coins, which coins were bigger, which were smaller, etc.</p> <p>I will let the students share their findings from their group discussions with me for 2-3 minutes so all of the students have the opportunity to hear what each of the groups talked about.</p> <p>• <u>Transition to next learning activity</u></p> <p>I will tell the students, "Now that we have read about and talked about coins, we'll be doing some more work with them throughout the year. Tonight when you go home you should share what you learned about coins with your family members."</p> | |
| <p><i>Assessment</i></p> <p>The majority of my assessing will be done as I walk around the room and listen to the groups' conversations. I will be listening for how they discuss their coins (are they using terms like "more than", "less than", color descriptions, size descriptions, shape descriptions, etc.). This will help me to gauge my next coin lesson in regards to how much I need to review, how much new information I need to /can cover, etc. Another form of assessment will be what they share with me when they return to the rug to discuss their groups' discussions.</p> | <p><i>Academic, Social, and Linguistic Support during assessment</i></p> <p>I have found that my ELL students still raise their hands frequently, even if they have no idea what's going on. I will be sure to call on them and give them proper wait time and try to carefully listen to their answers (sometimes they try to speak in English, usually mimicking another student or something I have just said, and most times they speak back to be in their native language). I try to nod my head when they are speaking and keep eye contact with them so they know I think what they are saying is valuable and important. Even if I cannot Necessarily understand them or answer them back I still smile and give them a thumbs-up (or say "gracias" to my Spanish speakers) to let them know I appreciate their input. This way I am not necessarily telling them they were right or wrong, but that I appreciate their effort.</p> |

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Section 6

-In regards to including parent involvement and communication, I have two main plans. The first is to send home the "Home Link" homework activities for each lesson, provided by *Everyday Mathematics*. These activities include activities for students to do with their families and correspond directly to each lesson. For example, the home link activity for lesson 2.1 is for students to work with their families to find and list (or draw a picture) of things around their houses that are shaped like rectangles, squares, triangles and circles. Likewise, the home link for lesson 2.5 is for students to find patterns around their house and draw them.

-My second plan is to include a description of what we're working on in math in the weekly newsletter our class sends home. This way, parents will have a written description of what we will be working on every day in class.

-Furthermore, Parent-Teacher conferences happen to fall in the middle of my math unit. Thus, I can communicate students' progress, any concerns I may have, suggestions for additional work at home, etc. to the parents. Likewise, parents can ask me any questions they may have, communicate their concerns, etc.