Making the Most of Every Day Counts® Calendar Math

School-wide Strategies for Principals and Coaches

Session 134EW – ASCD Conference – Orlando, FL – March 14, 2009

1. Providing a Strong Start-up each Year - Teamwork

- intent of EDC - benefits of school-wide use
- materials
- grade level team preparation for Aug/Sept start-up

2. Making the Most of Every Day Counts® - A Reflection Tool

- set-up and updating
- discussion – effective questioning
- assessment
- observing an EDC discussion – positive things to look for

3. Utilizing Special Features

- teaching basic facts with EDC: a school-wide approach
- building math vocabulary and language
- practice: Practice Counts and Partner Games

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What is the intent of Every Day Counts®?

- To capitalize on daily 10-15 minute discussions to foster children's confidence and competence in doing math.

- To use "everyday language" to describe the math we do, prior to introducing formal math terms and symbolic notation.

- To revisit the big math ideas at each grade throughout the year, developing understanding and math vocabulary over time.

- To use visual models that help children visualize and talk about number and geometric relationships.

- To have children share their unique strategies, develop higher level thinking skills, and enjoy math.

What is the content of Every Day Counts®?

Every Day Counts calendar math helps children develop critical grade level concepts throughout the year, month by month. ***Every Day Counts'*** **focus is unique at each grade level.**

Every Day Counts Kindergarten:

grouping and counting; matching sets and numbers; comparing length, capacity, weight, and quantity; patterning, sorting and classifying; part/part/whole relationships for small sets; addition; take away, comparing, and missing part subtraction; classifying 2D and 3D shapes by attributes.

Every Day Counts Grade 1:

grouping and counting by 10's, 5's, and 2's; understanding our base ten system; part/part/whole relationships for sets to 10 and fact families; seeing fives to find sums to 18; story problems; patterning; data collection and graphing; comparing, measuring length, weight, volume; reading clocks; classifying 2D and 3D shapes by attributes.

Every Day Counts Grade 2:

grouping and counting by 10's, 5's, 2's, 3's, and 4's; place value and base ten exchanges; addition and subtraction fact strategies; adding and differencing 2 digit numbers with and without regrouping; multiplication and division; fractions; customary and metric measuring; patterning; data collection and graphing; telling time; counting coins and figuring change; classifying 2D and 3D shapes by attributes; recognizing congruence and symmetry.

Every Day Counts Grade 3:

place value to 10,000's; exchanges and regrouping with addition and subtraction; mental math; understanding multiplication, division, factors, and remainders; +/- facts to 18; x facts through the 6's using number relationships; story problems; customary and metric measurement for length, weight and capacity focusing on frequently used equivalents; counting coins and figuring change; figuring time ahead and back; using patterns to predict; attributes of 2 D and 3 D figures; basic fractions; probability.

Every Day Counts Grade 4:

place value to 100,000's; mental math strategies; seeing multiple patterns, common multiples and factors; systematic month by month checkup on x facts through 9's; predicting patterns; customary and metric measurement using fraction and decimal notation; area and perimeter; data collection using bar and line graphs; mean, median, range; probability; counting coins and figuring change; time ahead and back; moving from patterns to functions; fractions of area, length, and set; improper to mixed fractions; attributes of 2 D triangles, quadrilaterals, other polygons and 3 D figures; lines, segments, rays, angles.

Every Day Counts Grade 5:

place value to 1,000,000; mental math strategies; fraction, decimal, and percent equivalents; number theory including multiples, factors, primes, composites, common multiples and factors; fractions of a set, simplifying fractions, finding common denominators and equivalent fractions; customary and metric measurement; area and perimeter; time ahead and back; attributes of scalene, isosceles, equilateral triangles, quadrilaterals and solids; identifying lines, segments, rays, and measuring angles; line graphs; statistics using mean, median, mode, range; probability; moving from patterns to functions to algebraic expressions.

Every Day Counts Grade 6:

fraction, decimal, percent relationships; number theory, including factors, multiples, divisibility, primes, and exponents; mental math, algebraic thinking, moving from patterns to functions to graphs and use of variables; geometry, including attributes of triangles, quadrilaterals, and 3D figures; measurement of circles; measurement of area, perimeter, and surface area; statistics presented in variety of display formats; use of mean, mode, median and range; probability.

EDC Kit Inventory: Teacher_____ Grade____ Room #_____

Please check off what is present and circle or highlight any missing item(s). Tape 1 copy to your EDC Kit Box and turn in 1 copy to _____by _____.

The goal is to keep as many kits as possible fully functional for next fall's use and to make it easy for you, or whomever might be assigned the kit you used this year, to set up and get started at the start of school**.**

Every Day Counts® Calendar Math Kits – End of Year Inventory

* indicates consumable item that may be used up and require prep in the fall

Grades K-2

___Teacher Guide
___Ongoing Assessment Booklet
___Element Labels (please save)
___Small vinyl pockets (used to create various elements)
___Large vinyl pockets (optional for wipe off records)
___Calendar (with paper clips to hold pieces)
___12 Month Strips
___Aug-May Calendar Pieces organized in 10 small zip lock bags
___Yesterday, Today, Tomorrow Markers
___100 Chart (2 copies in grade 2)
___Adding Machine Tape (for Counting Tape)
___ *Counting Tape 3" square pieces (20 in each of 10 colors, K-1; 100 in each of 2 colors, 2)
___ Demo Coins
___ Depositor Poster and Depositor Blue Boxes
___ Plastic Stirrers in ziplock bag
___ Red and blue Overhead Counters in small zip lock bag
___ Make a Match Poster (**grade K only**)
___ 200 large paper clips (**grade K only**)
___ Tens and Ones Poster (**grade 1 only**)
___ Computations and Connections Poster (**grade 2 only**)
___ Birthday Poster (**grade 2 only**)
___*Teaching Resources Cardstock items, used and unused (Blacklines are in T Guide)

Grades 3-5

___Teacher Guide
___Ongoing Assessment Booklet
___Element Labels (please save)
___Small vinyl pockets (used to create various elements)
___Large clear vinyl pockets (optional for wipe off records)
___Calendar (with paper clips to hold pieces)
___12 month strips
___Aug-May Calendar Pieces organized in 10 small zip locks
___100 Charts (2 needed in grade 3 and 5)
___Adding Machine Tape (for Counting Tape)
___*Counting Tape 3"squares (100 in each of 2 colors, **grade 3 and 5 only**)
___Depositor Poster
___Play Money Bills (minimum of 18 in each denomination)
___Red and Blue Overhead Markers (**grade 3 only**)
___Demo Coins (**grade 3 only**)
___Colored Multiple Markers for 2's to 9's **(grade 4 only, please take down and save)**
___*Teaching Resources Cardstock Items, used and unused (Blacklines are in T Guide)

Every Day Counts® Grade Level Team Planning for Start of School

Grade Level_____ Team Recorder: _____

Team members present: Team Time Keeper: _____

Team recorder, please turn in 1 copy of this agenda/planner to _____by _____.

___A) 20-35 min. Preview Aug/Sept: Skim the Teacher Guide front matter if you are new to EDC or beginning with a new grade level. View the Aug/Sept composite on p. 16. Read Aug/Sept or have each team member choose a different element to read about and report back, noting the update procedure and the math language being developed. List 3-4 elements your team agrees to implement.

What key math concepts and vocabulary will be fostered by each chosen EDC Element:

EDC Element Math:

1.

2.

3.

4.

___C) 15 min. Plan for Week 1 (or next week): Use a copy of the Weekly Planner from the Teacher Guide p. 11 or use your own format. What element(s) will be introduced each day? Prepare 3-4 sample questions. **Please attach a copy of one team member's first week plan to this sheet.**

___D) 60-90 min: Materials Prep. You'll need scissors, sharpie pen, crayons/markers, p. clips.
Refer to Materials listed for each Aug/Sept Element. Refer to Getting Started (p. 8) in front matter for prep tips. For example, slitting and clipping your calendar will be helpful in the long run. If you have a new kit, check the EDC Teacher Resource Cardstock to see if blacklines for Aug/Sept have been printed for you. If your Kit has been used, you may need to copy blacklines located in the Teacher Guide.

NOTE: Grade level photos and prep tips can be viewed at edconline.net. Click on Samples – EDC Fall Start-up.

After working together, what elements do you have ready to put up? What do you have left to prepare?

Ready: Need to prepare:

__E) 2-5 min. Feedback:
Did your team have time to complete each task? __If not, how much more time would you have needed? ___Was the session helpful to your team's understanding, planning, and prep of Every Day Counts? ____If not, what would you change to make the time provided more helpful and productive?

Month_____ EDC Element_____ Grade___

Questions:

Month_____ EDC Element_____ Grade___

Questions:

Grade Level ____

Effective Grade Level Monthly Planning
for Every Day Counts®

Effectiveness is achieved when we all work together.

1. Make copies of the planner (EDC, p. 11).

2. Meet by grade level to fill in the coming month's planning sheets.

3. Let each person on the team be responsible for the planning for one element per month:

    Read the whole month, giving special attention to your element.

    Interpret the mathematical concepts being developed this month with this element and explain to the team how to update the element this month.

    Write down and share a few good questions to go with this element, given its focus this month.

    Help fill in the planning sheets for this month for the element.

    Determine if anything new needs to be made to use the element.

4. Help one another to implement the elements each month.

    Model teach for each other.

    Discuss how calendar discussions are going in your classroom. Seek advice from one another.

    Tell each other about what is going well.

P. Kanter

Making the Most of *Every Day Counts*®

SOME THINGS TO CONSIDER

A. Visual Presentation and Organization

____1. The bulletin board is where children can easily see it. In primary classes it is helpful if the bulletin board is near the rug area or class gathering place. Students have easy access to board.

____2. The various elements are arranged in an organized way. The display is attractive and inviting. Records are large enough to be seen by all.

___3. It is easy for the teacher and students to perform the daily updates. All the supplies are handy (e.g., overhead pens, tissue, water bottle, etc.).

B. Daily Updates and Student Involvement

____1. The Calendar and elements that use the calendar date reflect the day's date.

____2. The Counting Tape and elements that use the day in school reflect this number.

____3. Students are involved in doing the recording where appropriate. (It may be best for the teacher to write the Counting Tape numbers to insure clear uniform numbers.)

____4. To maximize student investment and motivation teachers often have helpers or a student team do the updating. (Some teachers have a table group be responsible for the updating each week with partners assigned responsibility for specific elements - if one is absent it still gets done.)

____5. A distinction is made between updating and discussion. (All the elements may require daily or frequent updating, but only one or two will be the focus of discussion.)

C. Fifteen Minute Discussion - The Heart of *Every Day Counts*

____1. Teacher takes full advantage of the visual models and data to focus students' thinking on seeing number or geometric relationships.

____2. Teacher models mathematical language and terms when describing what is visible on the bulletin board each day.

____3. Teacher uses the Daily Domino in kindergarten, Depositors in all grades, Computations and Connections in third grade, and the Fraction a Day and Daily Decimal in fifth grade to provide concrete to abstract instruction.

Concept Level:	Use of concrete materials and visual models. No symbols.
Connecting Level:	Teacher uses math symbols to model how to record what is seen.
Symbolic Level:	Students use symbols to record what they see.
Abstract Level:	Students can read back, interpret, and explain symbolic notation.

____4. Teacher asks a variety of questions at the recall level where answers are visible in the data, and at the problem solving level where students must make predictions and generalizations based on the data. (e.g., What do you see? How much/many ___ do we have? What will this amount be on ____? What will appear on the last day of the month? What do these shapes have in common? How would you define the math term? What patterns do you see? What do you know from our graph so far?)

____5. Teacher asks questions that encourage children to share their observations and strategies, and to justify their predictions and answers to the questions being posed.
(e.g., Would someone be willing to share how you got your answer? Does someone see it a different way? Convince us. How do you know?)

____6. Teacher establishes safe atmosphere for children to share conjectures and solutions without fear of ridicule for "incorrect" answers.

____7. Teacher allows sufficient time for group and individual responses and encourages broad participation (e.g. "Talk it over with your partner". Use "Class?" to indicate group response. Names in the can.)

____8. Teacher limits daily discussions to 15 minutes by selecting a different element or two to discuss each day. Following the updates, discussion focuses on a different element each day.

D. Student Behavior

____1. Children are attentive, active participants.

____2. Children are making predictions, organizing, analyzing, and generalizing.

____4. Children are estimating and judging the reasonableness of results.

____5. Children are sharing their various paths to solving problems.

____6. Children are explaining or justifying answers using physical models.

____7. Children are using symbolic math notation with understanding to write about what they see on the bulletin board. They can interpret symbolic notation using everyday language and formal math language (e.g. 17 ÷ 3 = 5 r 2; "Seventeen shared with three people gives each person five with two left over")

____8. Children are sometimes invited to communicate their thinking in an *Every Day Counts* notebook or math journal.

E. Assessment

____1. Teacher is able to evaluate children's understanding of a concept by observing their participation when updating and during discussions.

____2. Teacher may also use a child's math journal response to evaluate understanding and ability to communicate about a concept.

____3. Teacher may want to assess basic facts when a fact cluster becomes the focus of study in EDC.
(e.g., Number Builder, 1; Comp. & Connect, 2-3; Counting Tape, 3-4)

Every Day Counts® Lesson Observations

- What are the community agreements?

- How is it communicated to students what math they are expected to learn?

- After updating elements, which element is the primary focus of discussion.

- What mathematical understandings, skills, or strategies are children working towards?

- How are visual models utilized to facilitate language, and to explore number and geometric relationships?

- What kinds of questions are being asked?

- How are students encouraged to talk?

- How is maximum participation by all fostered? (group response, pair and share …)

- What evidence is there of student learning?

Five Talk Moves

1) Revoicing "So you're saying…"
(Repeat some or all of what the student has said and ask students to verify if teacher's revoicing is correct.)

2) Asking students to restate someone else's reasoning "Can you repeat what she just said in your own words?"

3) Asking students to apply their own reasoning to someone else's reasoning "Do you agree or disagree and why?"

4) Prompting students for further participation "Would someone like to add on?"

5) Using wait time "Take your time… we'll wait…" "I'll come back to you in a few minutes."

Reference: Chapin, S., C. O'Connor, and N. Anderson. 2003. *Classroom Discussions; Using Math Talk to Help Students Learn, Grades 1 – 6.* Sausalito, CA: Math Solutions Publications.

Some Questions to Evaluate Understanding

How do you know?

Convince us. Prove to us.

What is the same? Different?

Why? Why not?

What was your mind thinking?

How else might you think about this?

Basic Facts Strategies

+ and – facts

- Counting all
- Counting on for adding and finding a difference
- Understanding and using inverse +/- relationship
- Decomposing and recombining

    "Pulling out 5's" to make ten

    "Fast Tens" and "Making a Fast Ten"

    "Doubles and Doubles +1"

    "Taking out of the ten" subtraction

x facts

- Commutative Property - "Presto Chango"
- Distributive Property - Using x facts you know to learn new facts

    x2's and x4's; x3's and x6's; x10's and x9's

- Understanding and using inverse x/÷ relationships