

Training of Trainers
May 12-13, 2014
Yakima, WA

OUTCOME for 2-Day TOT

MEP/ESD participants will be able to conduct a successful regional or local Math MATTERS training for school district summer programs.

Content Objectives

- 1. Review Math MATTERS goals and outcomes. (BB)**
- 2. Review evaluation results from Math MATTERS Year 1. (BB)**
- 3. Review components of Cognitively Guided Instruction. (BB)**

Content Objectives

4. Explore a complete Math MATTERS lesson. (CI)

5. Explore extension activities. (CI)

6. Model scoring on various (CI) assessments.

Content Objectives

- 7. Review data collection requirements. (CI)**
- 8. Explore instructional and professional development opportunities through MAS Space. (S)**
- 9. *Crosswalk the MM content with the CCSS math practices. (CI)***
- 10. Support the planning of your local or regional MM training by facilitating planning and technical assistance on day 2. (P&A)**

Language Objectives

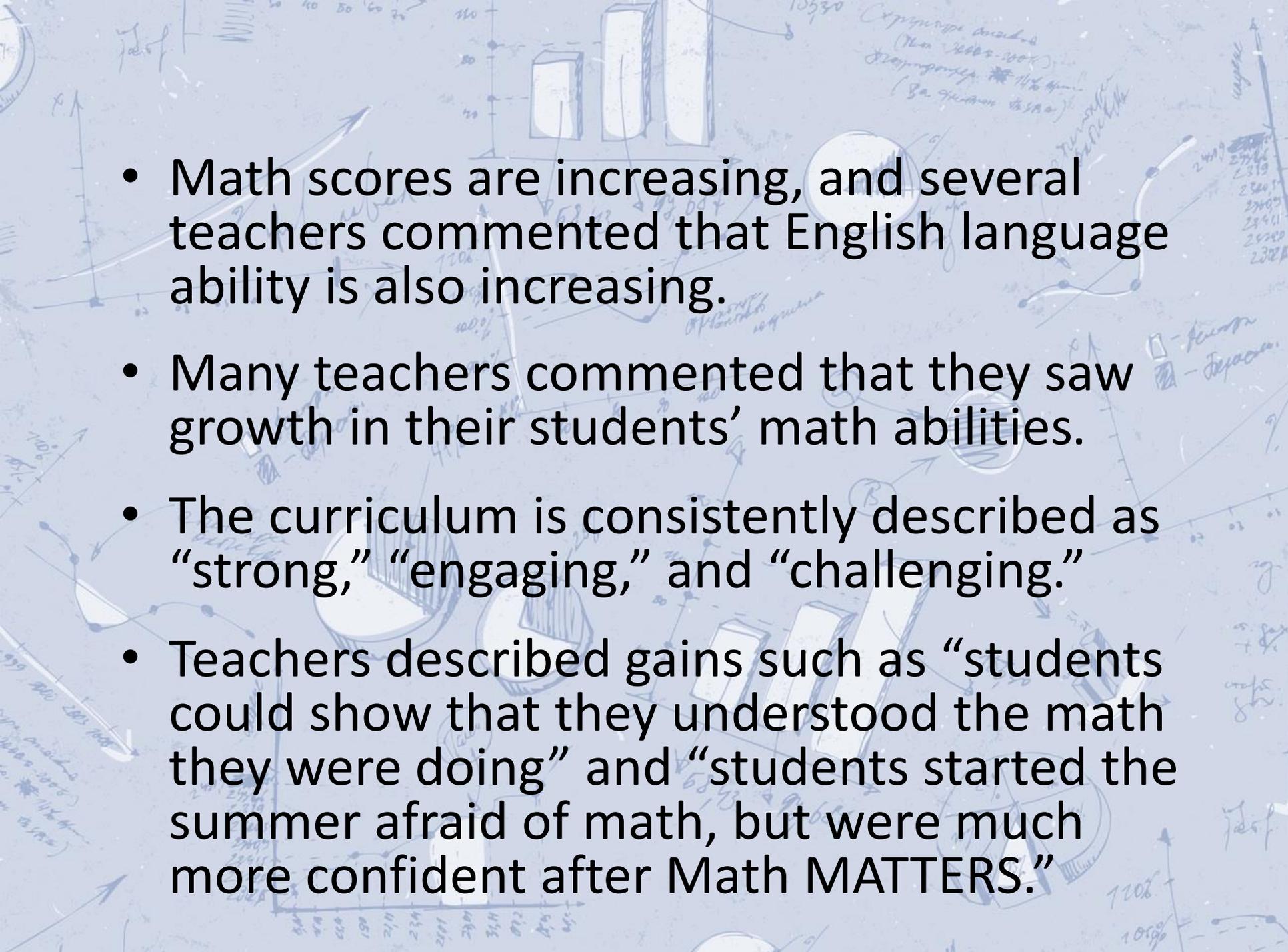
- Reflect and discuss Math MATTERS instructional activities. (I)
- Recognize and respond orally to appropriate questioning techniques. (I & S)
- Identify and discuss opportunities for using MAS Space. (I)
- Write notes and summary information in your Math Matters notebooks. (R&A)

Consortium States and Partner States





**Math MATTERS
Successes!**

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- Math scores are increasing, and several teachers commented that English language ability is also increasing.
 - Many teachers commented that they saw growth in their students' math abilities.
 - The curriculum is consistently described as “strong,” “engaging,” and “challenging.”
 - Teachers described gains such as “students could show that they understood the math they were doing” and “students started the summer afraid of math, but were much more confident after Math MATTERS.”

Suggestions

- **Include a Table of Contents**
- **Provide for additional proofreading to reduce errors.**
- **Provide more flexibility because it is difficult for some programs (of shorter duration or home-based) to conduct all of the activities or use all of the materials available.**



Math MATTERS Evaluation Results

Performance Measure

- **Following summer programs annually, 80% of students in grades K-6 with both pre- and post-assessments in the 8 participating consortium States will increase their scores by 9% from pre-assessment to post-assessment on the Math MATTERS curriculum-based assessments.**

Student Results (ALL REPORTING STATES)

Grade	Year 1					
	N	Mean Pre	Mean Post	% Gain	# (%) Gaining 9%	P value
K	1,025	55%	78%	+23%	861 (84%)	<.001
1	1,047	52%	77%	+25%	844 (81%)	<.001
2	968	47%	73%	+26%	810 (84%)	<.001
3	850	47%	73%	+26%	681 (80%)	<.001
4	783	37%	65%	+28%	653 (83%)	<.001
5	719	38%	65%	+27%	588 (82%)	<.001
6	538	28%	53%	+25%	434 (81%)	<.001
Total	5,930	45%	71%	+26%	4,871 (82%)	<.001

Washington State Results 2013

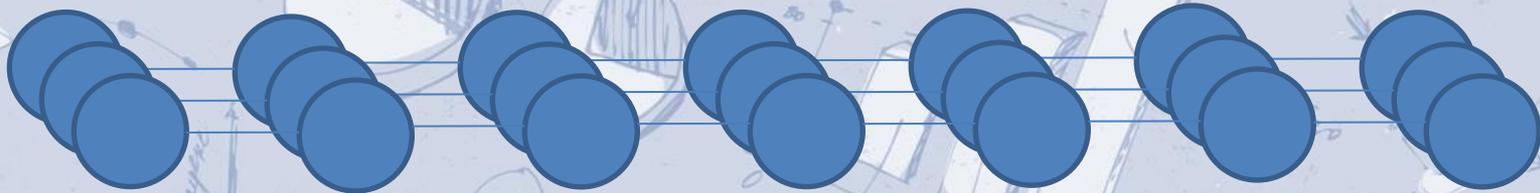
Program	District	# Students*	# took pre& post	# made gains	% made gains	Met performance goal**
MATTERS	Bridgeport	40	33	30	91%	Y
MASTERS	Burlington	42	29	18	62%	N
MATTERS	Grandview	5	4	1	25%	N
MASTERS	Mabton	11	10	3	30%	N
MASTERS	Moses Lake	15	14	13	93%	Y
MATTERS	Mount Vernon	21	19	14	74%	N
MATTERS	Othello	123	117	99	85%	Y
MATTERS	Prosser	131	111	66	59%	N
MATTERS	Sedro-Wooll	18	15	14	93%	Y
MATTERS	Toppenish	116	116	63	54%	N
MATTERS	Wahluke	53	39	30	77%	N
MASTERS	Wenatchee	167	154	143	93%	Y
MATTERS	Yakima	317	239	206	86%	Y
		1059	900	700	78%	almost

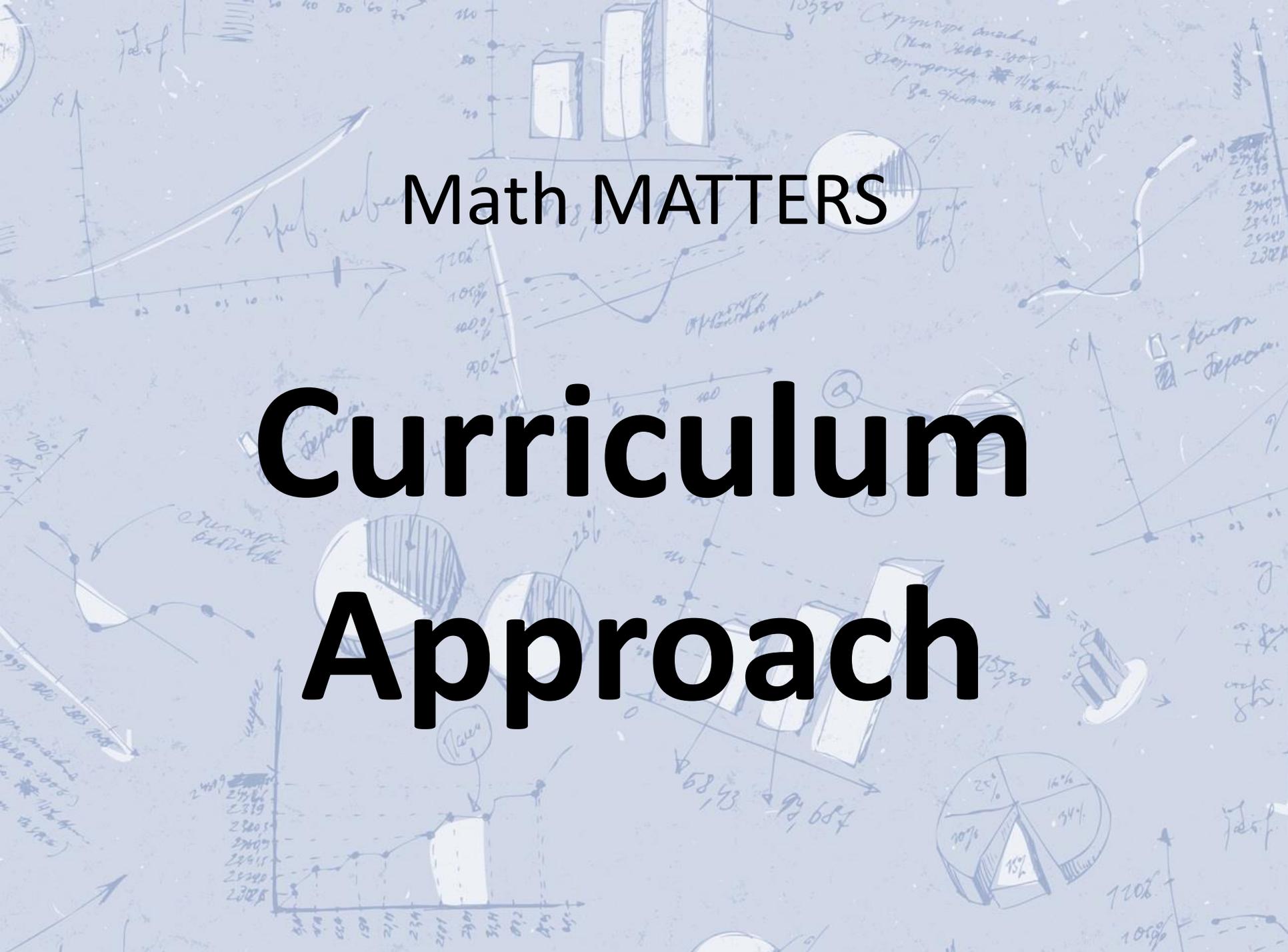
*number reported as having taken either the pre-test, the post-test or both the pre- and post-tests

**80% of students with both a pre and post test score who increased their score by 9% or more from the pre to the post

Math MATTERS and CCSS

What is the alignment between
Math MATTERS and CCSS?





Math MATTERS

Curriculum Approach

Math content and
balanced literacy
delivered through a
sheltered instructional
approach

What is Balanced Literacy?

Read Aloud

- Demonstrates proficient reading
- Exposes children to a variety of genres
- Expands access to text

Shared Reading

- Models reading strategies
- Extends understanding of the reading process

Interactive Reading

- Teacher and child choose text
- Teacher encourages child to read

Guided Reading

- Child does the reading
- Teacher acts as a guide

Independent Reading

- Child chooses text
- Child practices at his or her level

Modeled Writing

- Demonstrates proficient writing
- Expands access to writing

Shared Writing

- Models writing strategies
- Extends understanding of the writing process

Interactive Writing

- Teacher and child choose topic
- Teacher and child share pen

Guided Writing

- Teacher engages child in discussion
- Child does the writing

Independent Writing

- Child chooses topic
- Child practices at his or her independent level

What is Sheltered Instruction?

Building Background

- Link concepts to students' background experience
- Emphasize Key Vocabulary

Comprehensible Input

- Use a variety of techniques to make content clear

Strategies

- Employ a variety of question types

Interaction

- Group students to support language and content objectives

Practice/Application

- Supply lots of hands-on materials

Lesson Delivery

- Clearly support content and language objectives

Key Math MATTERS Strategies

Support linguistically appropriate content and language objectives throughout the Math MATTERS lessons.

Emphasize key vocabulary within Math MATTERS.

Provide frequent opportunities for interaction and discussion during Math MATTERS lessons.

Employ a variety of question types during Math MATTERS lessons (for example, using questions focusing on knowing, organizing, applying, analyzing, generating, integrating, and evaluating).

Adapt content through graphic organizers, visual representations (non-linguistic representation), or taped texts for Math MATTERS lessons.

Provide differentiated instruction for students with different math.

Aid students in writing complete number sentences for CGI problems

Curriculum Organization

Grade Band Icons:

- K dog 
- 1-2  crayon
- 3-4 dolphin 
- 5-6  thunderbird
- 7-8 motorcycle 

- Each grade band contains **6 units**.
(GB=6 units)
- Each unit contains **3 lessons**.
(Unit=3 lessons)

LESSON COMPONENTS

- Daily Routines
- Classroom Lesson
- TV Lesson
- Follow Up Lesson
- Routine reinforcement of skills
- Literacy lesson
- Transition to Math
- Math lesson
- Math game
- Snack fractions

How Long Will It Take

How many instructional hours will it take to complete...

...a lesson?

...a unit?

...a grade band?

How Long Does a Lesson Take?

- Daily Routines (30-45 min) 45
 - Classroom Lesson (60-90 min) 90
 - TV Lesson (30) 30
 - Follow Up Lesson 60
- 225 min
- 3.75 hours**

Required Materials

- Curriculum
- DVDs
- Books
- Manipulatives and other supplies
- Teacher's guide and student BLMs
- For the TV lesson(Math concepts)
- For the Classroom (literacy) lesson
- These are required to carry out the activities including food for snack fractions

How Do We Order Materials?

<http://projectsmart.esc20.net>

A Curriculum Order includes:

- **Operational Guide—Also available online**
- **K-8 Curriculum (Paper Copy and electronic copy on CD)**
- **Parent Guides (English/Spanish)**
- **Curriculum Overviews**
- **Assessments (English/Spanish)**
- **Curriculum order **does not include** the DVDs of the math lessons** (These are required and must be ordered separately. They will be shipped weekly beginning the last week of May as they get them taped and duplicated.)

- For those implementing an in-home program, a digital in-home lesson booklet will be on the CD but NOT printed.

2014 Timeline for Directors

- **Download the Operational Guide** (available now!)
- **Determine what grade bands will be served**
- **Determine number of staff needed for each grade band and post positions**
- **Determine total instructional hours dedicated to Math MATTERS (hours per day/days per week/weeks per summer)**
- **Determine which units will be covered**

2014 Timeline (continued)

- **Order curriculum (and DVDs) asap** (shipped in mid-May or as orders are received thereafter)
- **Order books** (wishlists at Amazon; look up mkernel@nwesd.org)
- **Review manipulatives list and purchase, as necessary.**
- **Review other supply lists (snack fractions and general supplies) and purchase, as necessary.**
- **Plan local professional development (ESD training, PD in a Flash on MAS Space, etc.)**

5-Minute Reflection

- Take **1 minute** to reflect on the information just presented and what you need to remember when preparing for your training.
- Create a T-chart in your Math MATTERS notebooks and label the two columns “Important TO DOs” and “Remember”
- Take **4 minutes** to write things you want to remember and things you need/want to do to prepare for your MM trainings.