Using Routines in a Non-Routine Way to teach the SMPs

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Who are we?

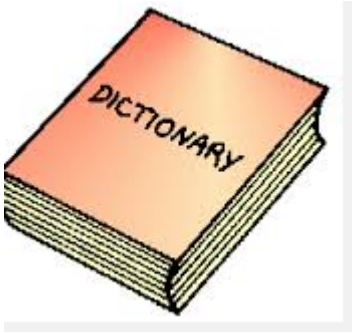
- Looney Math Consulting

- Offering PreK – 12 Professional Development throughout New England to support mathematics education

  - **Susan Looney** - Director of Professional Development
  - **Cheryl Condon** - Math Coach – Wellesley Public Schools
  - **Kristen Carr** - 1st Grade Teacher & former Math Specialist - Westwood Public Schools

What can you expect from today's session?

1. Redefining classroom routines
2. Specific classroom examples with connections to Standards for Mathematical Practice (SMPs)
3. An opportunity to reflect and connect to your own practice



Routine
(defined by dictionary.com)

noun

1. a customary or regular course of procedure.

2. commonplace tasks, chores, or duties as must be done regularly or at specified intervals; typical or everyday activity:
   "the routine of an office."

3. regular, unvarying, habitual, unimaginative, or rote procedure.

Synonyms for routine

adj **habitual**

conventional	unremarkable	standard	quotidian
everyday	usual	accepted	typical
normal	familiar	accustomed	wonted
ordinary	general	chronic	workaday
periodic	plain	customary	
regular	seasonal	methodical	

Antonyms for routine

abnormal	special	variable
different	strange	breaking
eccentric	uncommon	original
extraordinary	unconventional	untraditional
irregular	unusual	

Making our Ordinary Mathematical Routines Extraordinary!

- Incorporating the SMPs
- Dynamic - activities that grow over time
- Easily differentiated - by task, by the numbers, the level of the questioning
- Engaging and social
- Problem-based and purposeful

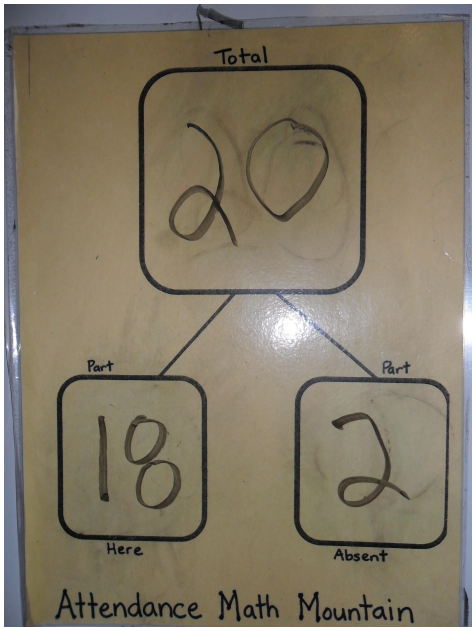
As we discuss each routine, think about…

- What's the mathematics?
- Which SMPs are being highlighted through questioning?
- What content standards could you address?
- How might it continue to evolve?

Mathematizing Your Morning Meeting

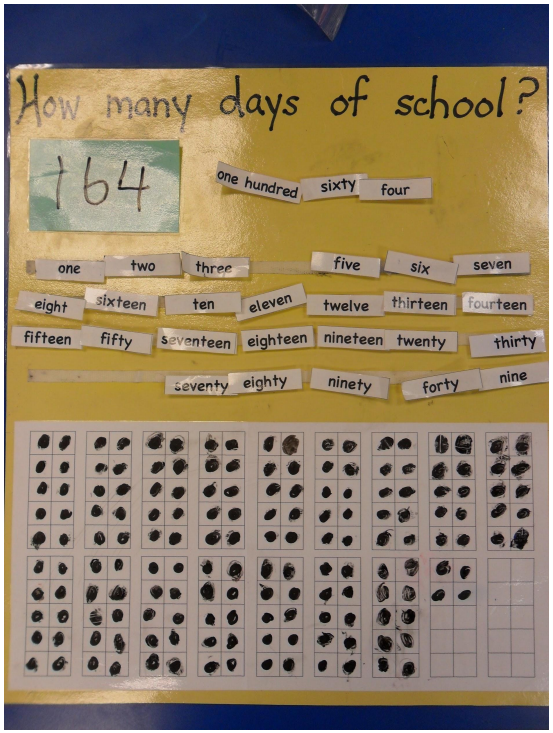
Attendance routine:

- counting
- part-part-whole relationship
- composing & decomposing numbers
- place value understanding



Days in school routine:

- counting
- part-part-whole relationship
- even & odd numbers
- place value understanding



Calendar:

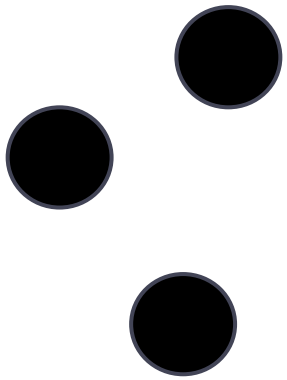
- counting
- finding patterns
- parts of 5 & 7

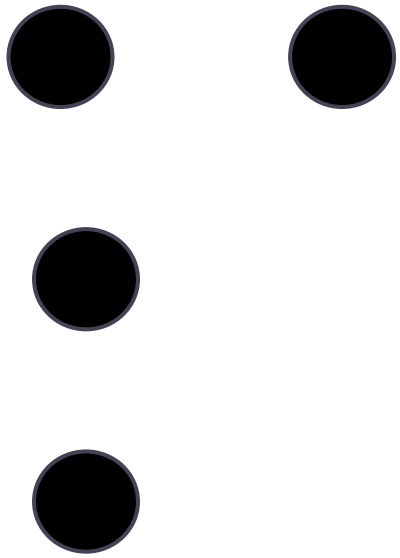
Quick Images ("Tell Me Fast") Routines

- Subitizing
- Place value
- Addition & subtraction strategies
- Number relationships

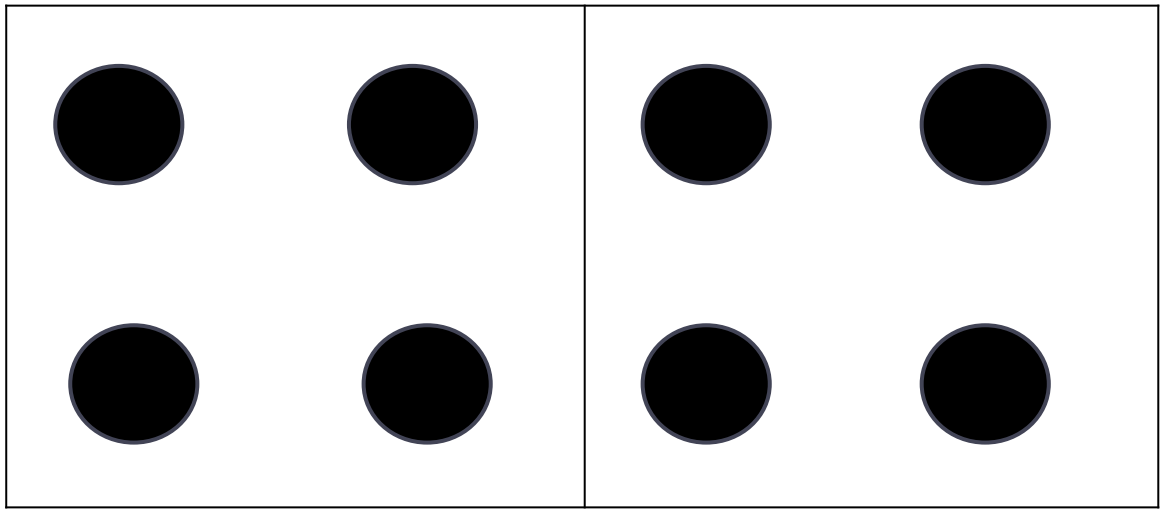
Finger Patterns

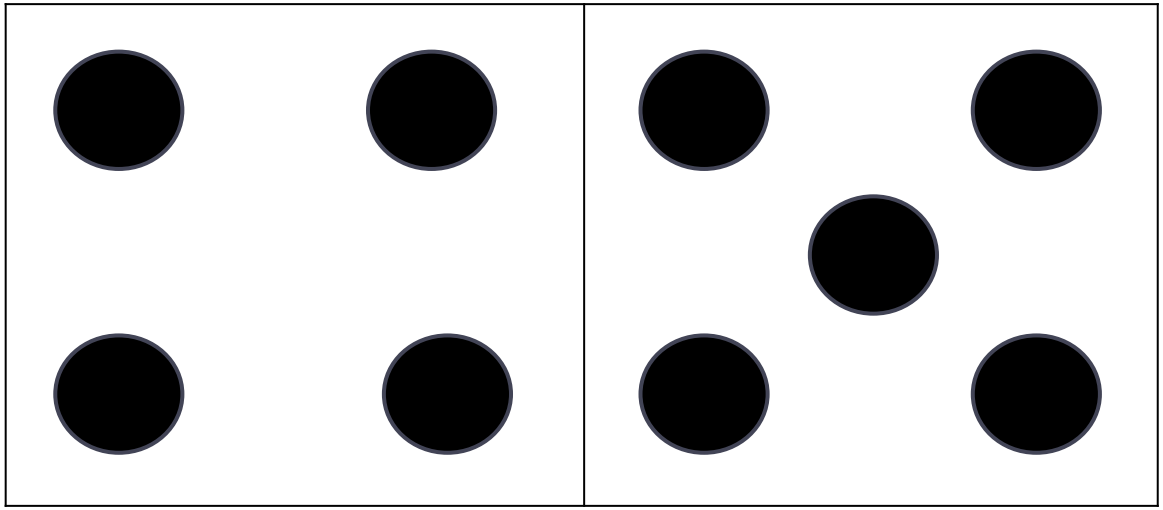
Dot Cards



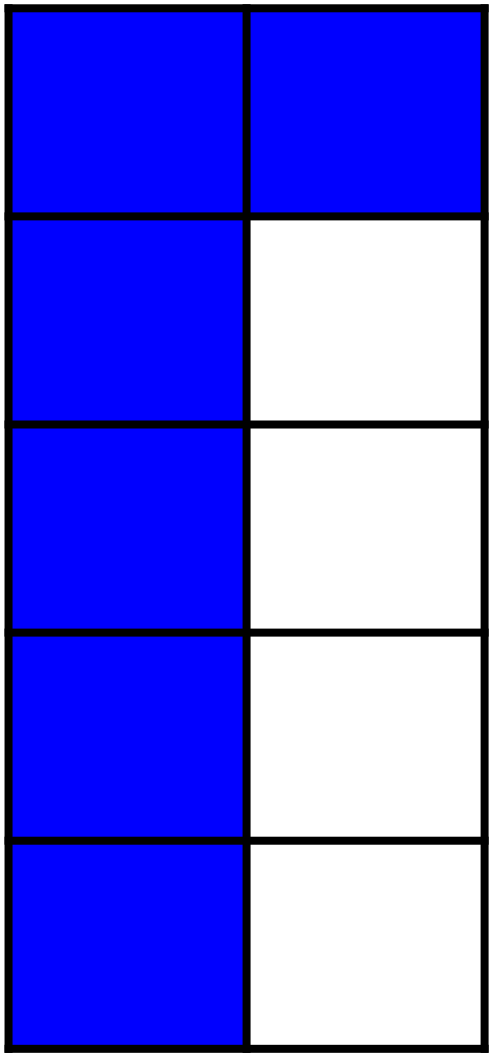


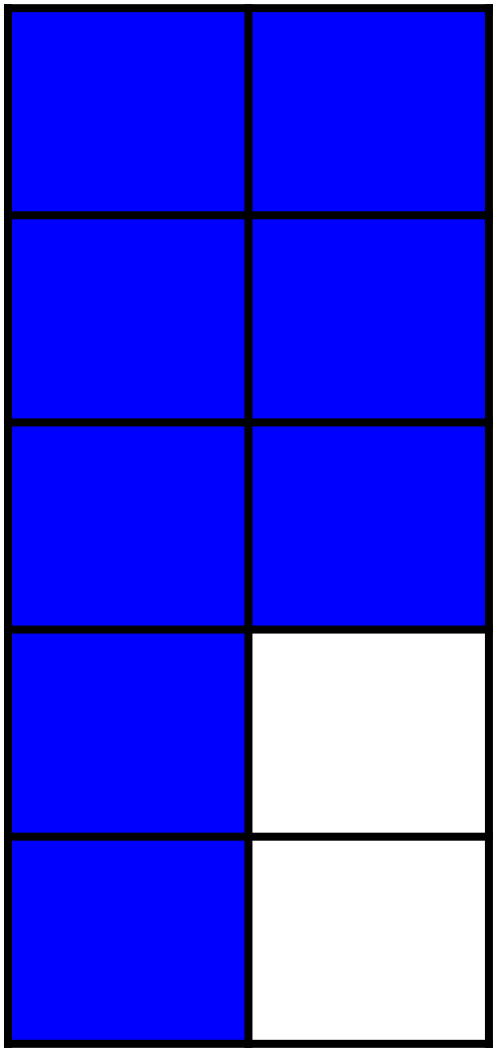
Dominoes





Ten Frames





High Five for Mathematics

- Article due out December 2015 TCM
- Video Clip

How are the SMPs built in?

- By establishing meaningful routines that highlight a mathematical situation we are providing a context in which students must **make sense of problems and persevere** in solving them

By asking good questions, we allow opportunities for student discourse, where students use **precise language and representation** to **explain their thinking** and **justify** their solutions

How are the SMPs built in?

- By incorporating visual models we promote opportunities for students to **make use of structure** and **reason mathematically** so that they begin to

- By varying routines, we encourage students to notice **repeated reasoning**, begin to **generalize** and move towards more efficient strategies

Reflection- YOUR Current Routines

- What are your current routines?
- Do your routines stay the same all year? If so, how can they grow?
- In what ways can routines be differentiated?
- What specific questions can be asked to address the SMPs?
- What aspect of mathematics can be modeled?
- How can you highlight structure and repeated reasoning?
- Can students interact with each other and critique each other's reasoning?
- Is there sufficient rigor to keep the problem challenging for all and to provide an opportunity to practice perseverance?
- Do tasks encourage conversation between students and the use of precise mathematical language?

Summary

- How will you start?
- How will you find time?
- What steps can you take TODAY?

Thank you!

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