



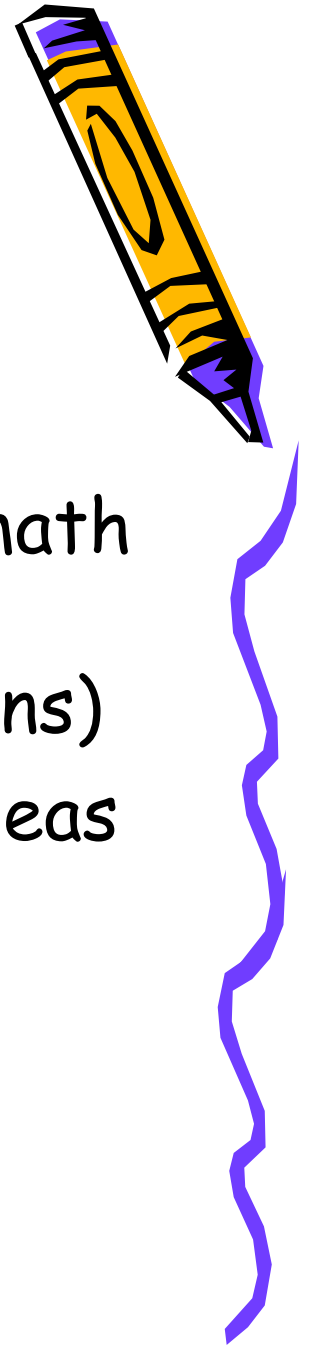
HES Math Night



Heather Rigatti, Math Support teacher
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Purpose:

- To strengthen home-school connection
- To provide information about district math curriculum, instruction and resources (Scott Foresman math and Investigations)
- To give parents games, activities and ideas to help with math at home
- To reinforce the message that "Math makes sense."



Introductions:

- Janice Harris, Principal
- Heather Rigatti, Math Support Teacher
- Classroom teachers:
 - Deb Goodrich (gr 2)
 - Donna Pecoraro (gr 3)
 - Rob Davey (gr 4)



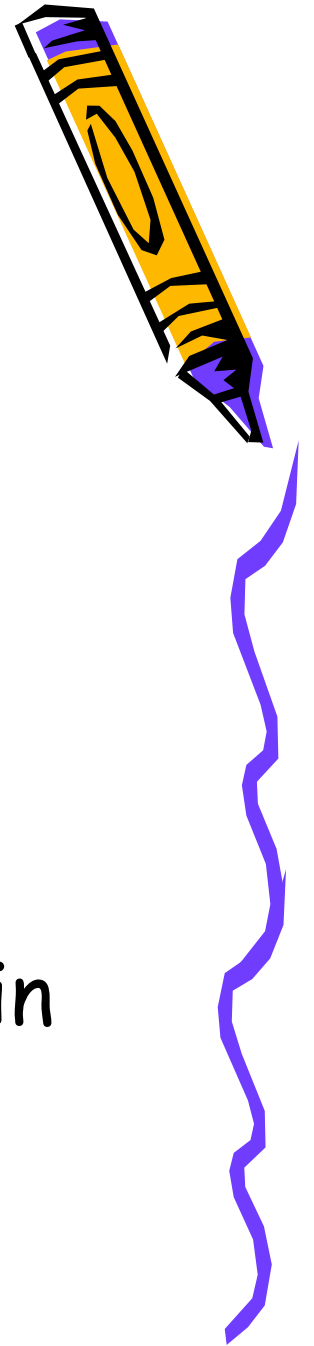
Plan for tonight:

- Overview
- Station Exploration: grade level games, technology, school resources, math materials
- Brief presentation: overview of K-4 mathematics (with handouts)
- Questions and Answers



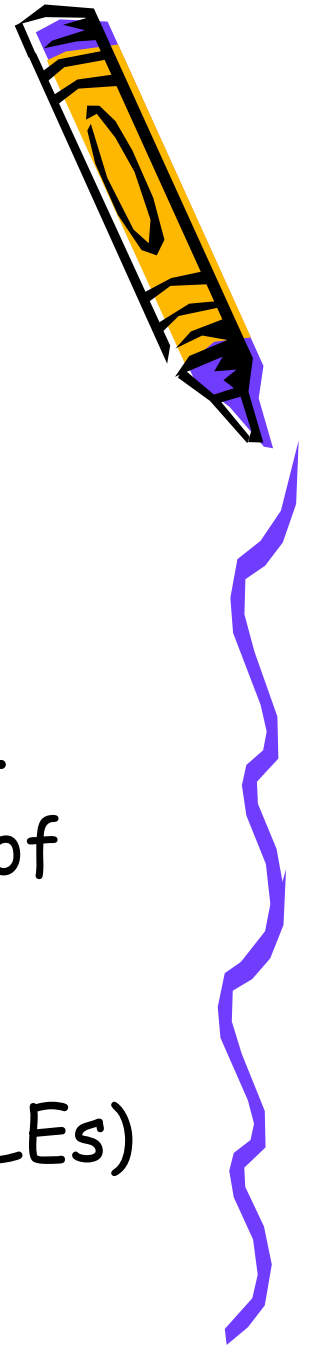
Station Exploration

- Enjoy the stations:
 - grade level games
 - technology
 - school resources
 - math materials
- Come back for more presentation in 15-20 minutes.



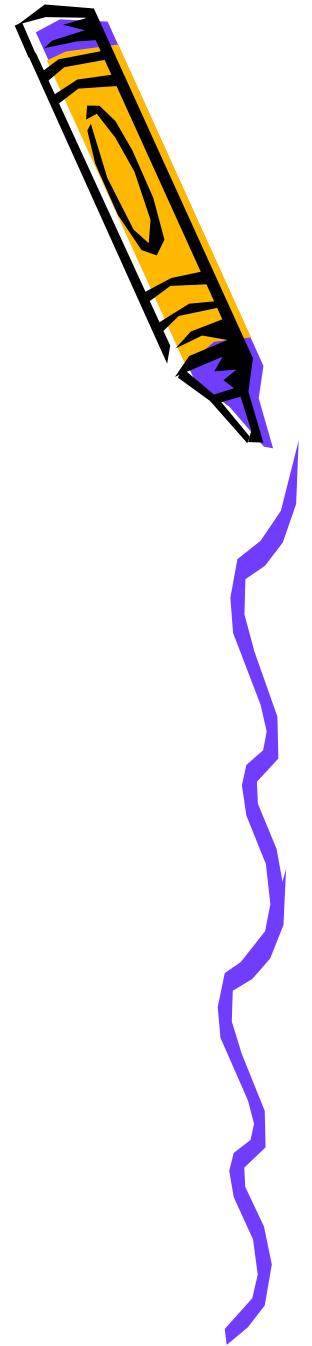
Overview of K-4 Mathematics: Curriculum

- Curriculum = what to teach
- Current RSD 17 curriculum is 2006©.
- New version is going to the Board of Education for approval this school year.
- Based on National Council of Teachers of Mathematics (NCTM) guidelines
- Based on Connecticut Department of Education Grade Level Expectations (GLEs)



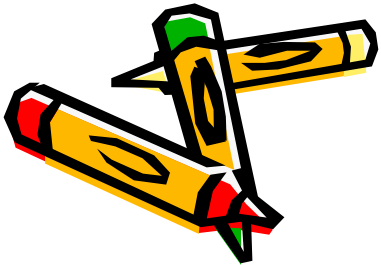
Overview of K-4 Mathematics: Curriculum

- Instructional programs should enable all students to...
- Content Standards
 - Number and Operations
 - Algebra
 - Geometry
 - Measurement
 - Data Analysis and Probability
- Process Standards:
 - Problem Solving
 - Reasoning and Proof
 - Communication
 - Connections
 - Representation



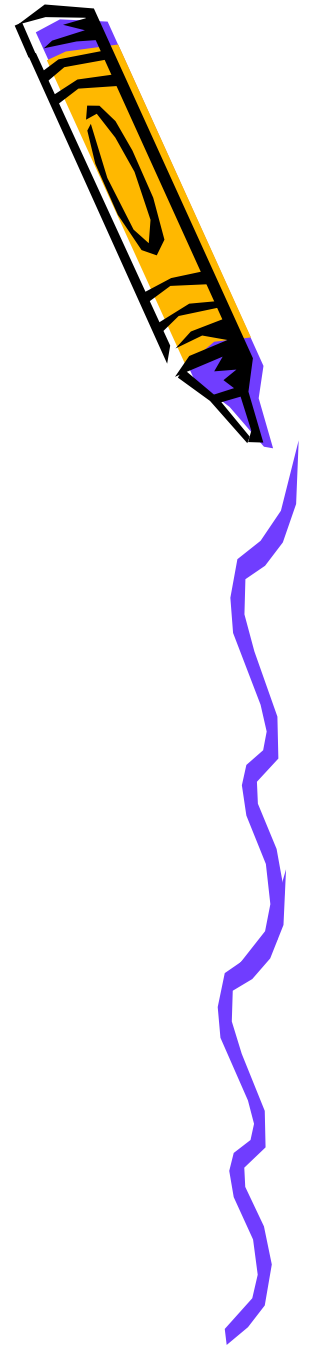
Overview of K-4 Mathematics: Instruction

- Instruction = how to teach
- Teachers use a variety of strategies and methods to teach mathematics.
- Some include whole class demonstrations, small group review, individual assistance, use of objects, drawing pictures, organizing procedures, cooperative learning activities, games, etc.



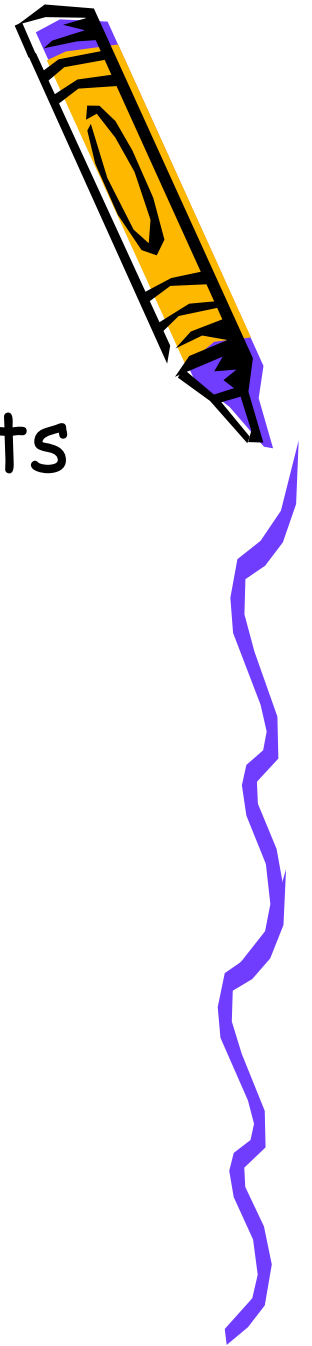
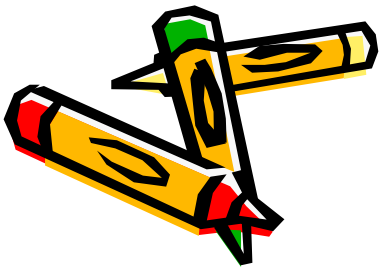
Overview of K-4 Mathematics: Time

- Students in grades K-4 spend approximately one hour per day on mathematics content and skills.
- Math is integrated at times into other areas such as science and social studies.



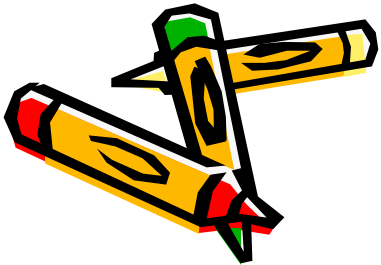
Overview of K-4 Mathematics: Resources

- RSD 17 has joint usage of two texts for elementary grades:
 - *Scott Foresman-Addison Wesley Mathematics*
 - *Investigations*
 - Both from Pearson (publisher)



Overview of K-4 Mathematics: Resources

- *Scott Foresman-Addison Wesley Mathematics* is a traditional math program with about 10-12 units of instruction per year in a typical text.
- *Investigations* is a problem-solving based math program with 9 modules per year. RSD17 currently owns 4 modules per grade.
- Teachers use their professional discretion in using both or just one resource for a given curriculum topic.

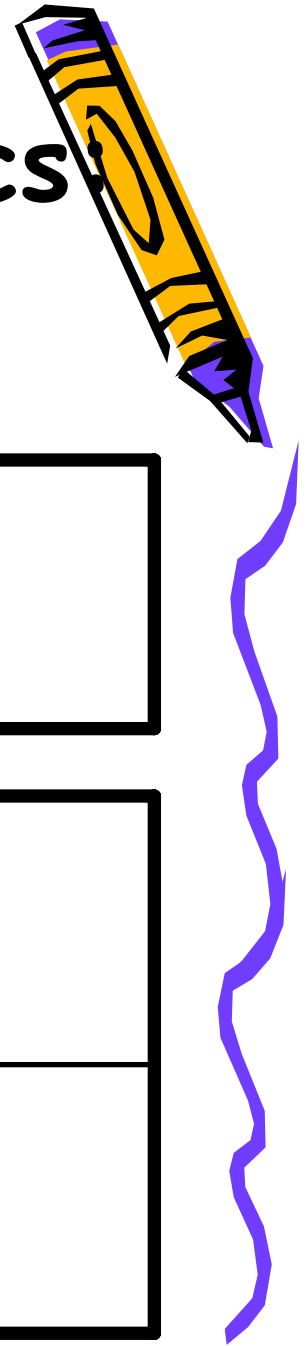


Overview of K-4 Mathematics: "What's different?"

- 5 frame

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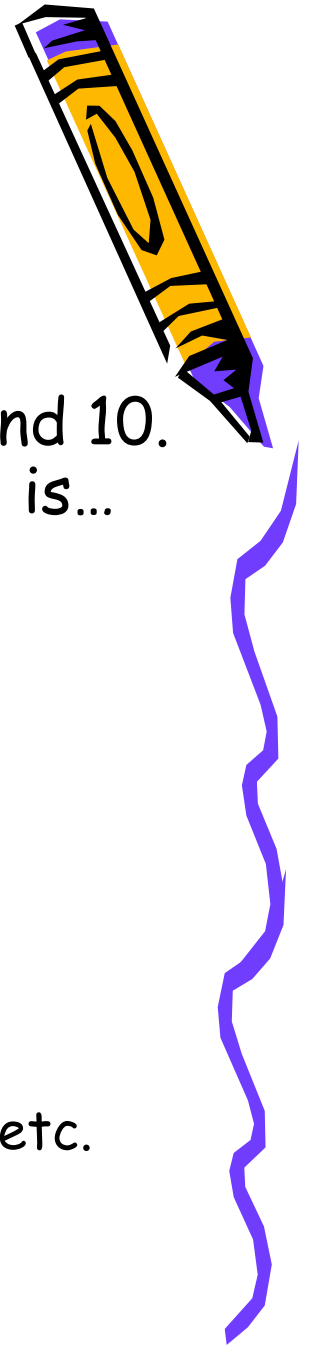
- 10 frame



5 frames and 10 frames

- Students anchor their sense of number to 5 and 10. For example, we want students to know that 6 is...
 - Between 5 and 7
 - One more than five (see 5 frame)
 - Four away from ten (see 10 frame)
 - Is composed of 3 and 3
 - Is even: each has a partner
 - Can be made of 2 groups of 3
 - Can be made of 3 groups of 2
 - Means sixty or "six tens" in the number 62
 - Means six hundred in the number 619

etc.

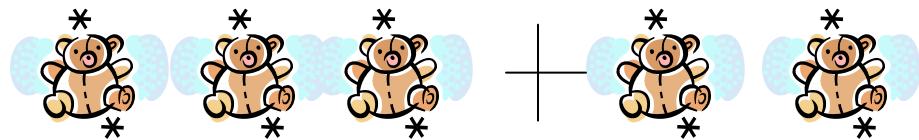


Overview of K-4 Mathematics: "What's different?"

- Rules are not taught in isolation.
 - Ex: "Can't take away 3 from 0"
 - "Just cross out the 6 make it a 5"
 - "Put a zero placeholder"
- Rather, number concepts are built upon from objects to pictures to numbers/symbols.

Objects: touch/move bears

Pictures:



Numbers: $3 + 2 = 5$



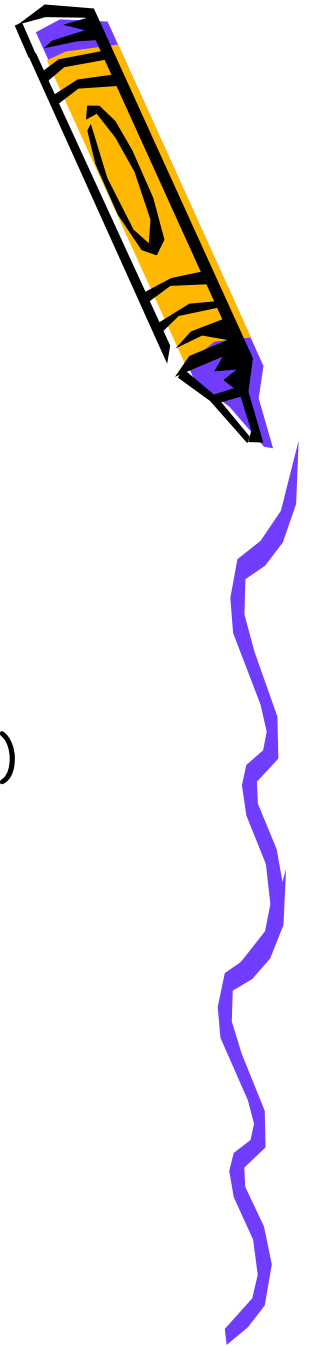
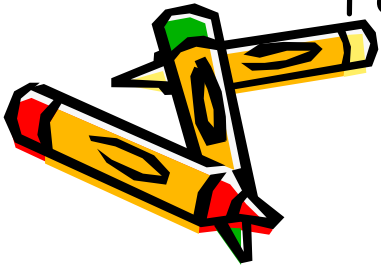
Overview of K-4 Mathematics: "What's different?"

- Connecticut Mastery Test
 - All students in grades 3-8 take the CMT every year. There are math sections every year.
 - We continue to look at the weaker strands: place value, fractions, estimating solutions, approximating measures, math applications
- Technology
 - Calculators and computers have evolving purposes in mathematics education.



Handouts: Take a look

- Grade level-specific handouts include:
 - Folded pamphlet with power standards and tips for parents
 - Game with directions/materials
 - Charts applicable to your child's grade level (ie: 10 frame, hundreds chart, multiplication/division table)
 - "Importance of Playing Games Many Times"
 - "Math Websites" - student activities and parent information sections
 - "Inexpensive Everyday Items (to help children with hands-on math skills)"
 - "Feedback Sheet" - half sheet

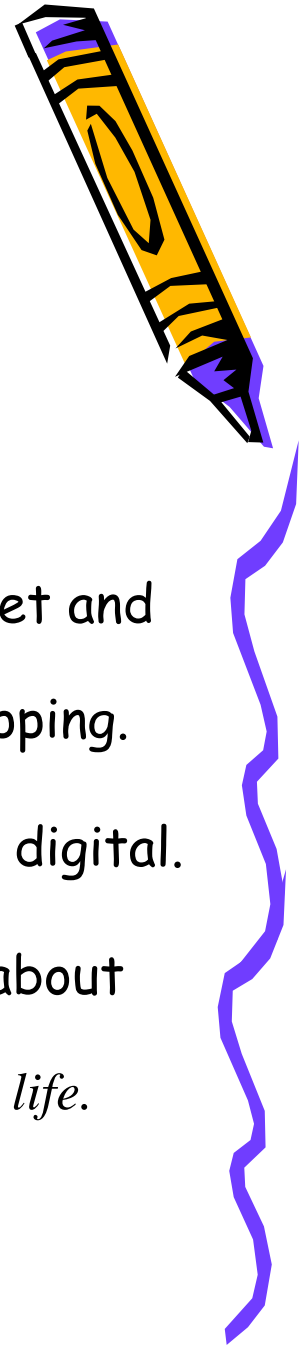


What can parents do to help...at home?

- Continue the message that "Math makes sense."
- Play board games and other games.
- Do math with home-made math materials.
- Recognize the value of your child working on the internet and playing computer games, etc.
- Provide opportunities for children to help with the shopping.
- Encourage your children to help with the cooking.
- Encourage use of calendars and clocks, both analog and digital.
- Involve your children in discussions about money.
- Estimate sometimes. Do exact math sometimes. Talk about why you did one or the other.

See and talk about math in the world around you and in your life.

Numbers, shapes, sizes, patterns, measurements, clocks, calendars, money...it's everywhere!



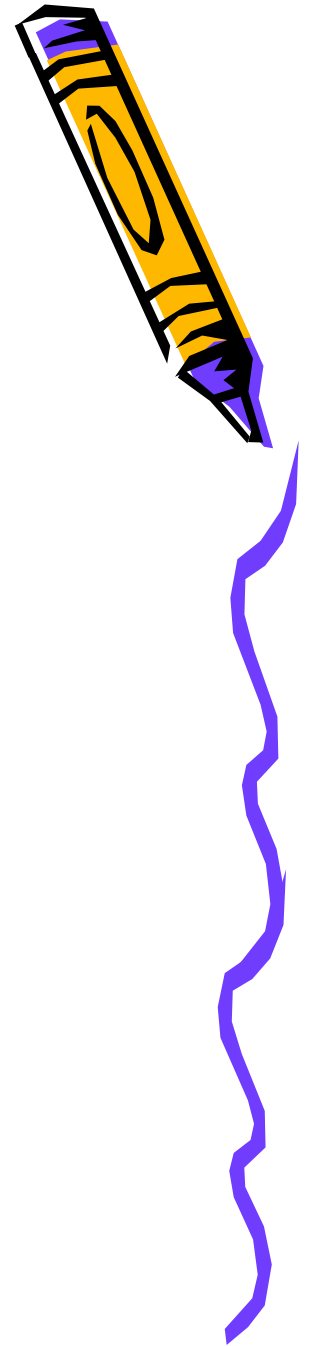
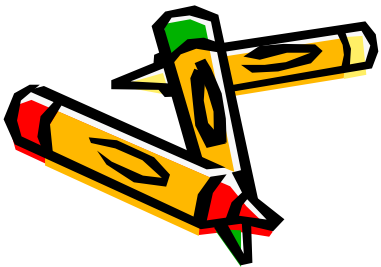
What can parents do to help...with homework?

- Provide a location and time to complete tasks.
- Ask questions:
 - Does this remind you of other problems you've worked on?
 - What is the problem asking you to do?
 - Where do you think you should start?
 - Would drawing a picture help? Try it!
 - What have you come up with so far?
 - How did you find your answer? Did you show your work?
 - Why does that work?
 - Is there another way?
 - How do you know it solves the problem?"
- Communicate with your child's teacher about homework concerns.



What can parents do to help...at school?

- Want to volunteer to help make "game kits" for classrooms??



Conclusion:

- Questions and Answers
- Closing remarks
 - Interested in helping create math game kits for your child's classroom?
 - Sign up today!

