

Paddy Eger

Educating America

News on Schools



A Newsletter Supporting k-8 Classrooms Volunteerism

Spring, 2017

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This quarter's newsletter is focused on




Making Math Memorable

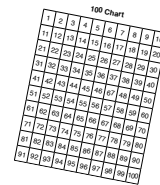


Math is a series of patterns, some more easily learned and understood than others. Let's investigate a variety of strategies and resources that can be adjusted to meet a multiple math skill levels while keeping young math brains engaged.

First, I suggest you gather math resources (books of logic, number games like Sudoku and age appropriate workbooks) that can go along on road trips or for waiting rooms at appointments. Check Amazon for inexpensive Math-themed books as well as guides for adults. If you feel uncertain about helping kids with math, check the suggested resources on page 4 of this newsletter. The listed sites are a few out of hundreds more that provide a wide range of ideas to spur on young (and curious older) mathematicians.

Next, create a **Math Tool Box**. The plastic school supply boxes are a perfect size. Stock it with:

- a 1-100 number line ([download here](#))
- 6 dice (foam dice are great because they are quiet!)
- 2 decks of playing cards with different back designs
- a ruler or tape measure 
- 50 small flat markers (pennies or clear plastic markers won't roll away)
- paper (lined, drawing and scrap papers)
- pencils, erasable white board markers for laminated game pages
- flash cards (like the triangle cards idea provided on page 3)



Practical math holds students interest better than lines of random problems on a page. Start a folder of student interest-related newspaper, mail, and magazine ads, sports scores, toy store sales, movie times, This Day in History articles, etc. This will provide raw materials to explore real world uses for math beyond math games they locate online.

You may also want to copy several of my age-appropriate [math games](#) as well as lists and rules of cards games such as Cribbage, Hearts, Yahtzee®, Uno® and a variety of Solitaire games. Math magically becomes less stressful when it's explored through games. (Continued on page 2)

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Quotes to Ponder

Arithmetic is being able to count up to twenty without taking off your shoes

~Mickey Mouse

Decimals have a point.

Math multiplies your opportunities



My name is Paddy Eger. I'm a retired teacher, a volunteer trainer, a classroom volunteer, a blogger and a writer across several genre. When I'm not writing YA novels, my focus is on encouraging adults to volunteer in classrooms

One of the greatest pleasures of my week is stepping into classrooms to support teachers and students. I'm one of those retired educators who can't stay away. I enjoy helping students with reading and writing and watching the ah-ha's light up their faces.

As you read through this newsletter I hope you will share your ideas and comments with me through my email Paddy@PaddyEger.com

You are invited to share this information with other interested persons. All I ask is that you credit me as your source and include my website address. —Thanks.

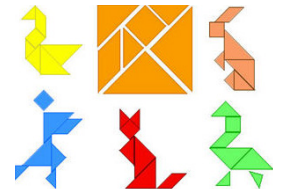
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and



(Continued from page 1) Purchase tangram activities if you can afford them. You'll find hours of challenges to address visual-spatial skills which are often neglected in math books and in schools. Look online for retailers selling tangrams, their pattern books, and the game, Tangoes®.



Many schools hold **Family Math Nights**. The games and activities interest all ages and demonstrate how math can be fun. If your school doesn't have this event, check out: www.familymathnight.com and www.pinterest.com/karendaily/family-math-night for near unending ideas so you can plan a neighborhood Family (or Kids) Math Night. It's guaranteed to be fun-filled and a great way to explore math.

Encourage your child to use practical measurement skills at home and in their daily life: ingredients in recipes, the comparative size/weight/volume of boxes/spaces, paying and making change for their personal purchases, telling time on an **analog** clock, estimating time/distance/amounts, reading a variety of graphs, and so on. In other words, to improve kids' math skills, make it part of your day right along with daily reading. Through games and practical use, math can become a lively, memorable, interactive family activity.



Math Twister Problems

Here are 3 sample/practical problems. When kids work to solve any story problems, encourage them to add labels and answer with complete math sentences.

Grade 2 Division Word Problem:

At the neighborhood restaurant each table seats 6 people. How many tables are needed for a group of 42 people?

Grade 5 Division Word Problem:

Miss Olsen bought a block of cheddar cheese. The block weighed $\frac{1}{3}$ of a pound. She cut the block into 3 equal pieces. What was the weight of each piece? Remember to simplify your answer to a proper fraction as a whole or mixed number.

Grade 8 Word Problem:

The grade 8 class is going to the planetarium. There is a budget of \$100 for the outing and the planetarium can accommodate 100 people. The admission price is as follows:

Adults \$10

Chaperones: \$2.50

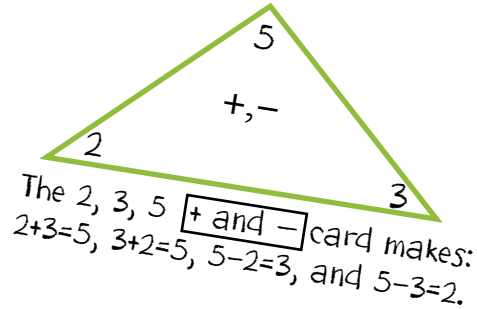
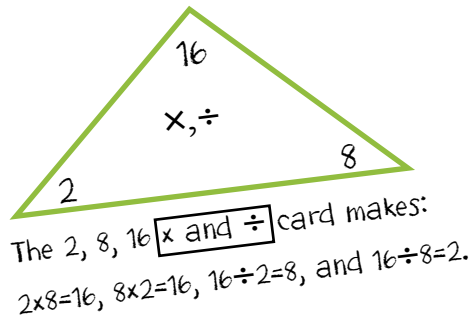
Students: \$0.50

Several Senior students(chaperones) are going along to help the teachers. What is the optimal number of teachers, chaperones and students that will be going if all 100 seats are to be filled and all the \$100 is to be spent?

[find solutions for these problems on page 4]

Making and Using Triangle Math Cards

Math Triangles cover the basic facts, making practice almost fun once a student sees how few cards it takes to master addition and subtraction for 1-12 or 13-20 and/or multiplication and division 1-12s. That's because Math Triangles address the commutative property of numbers. Each card represents 4 possible problems:

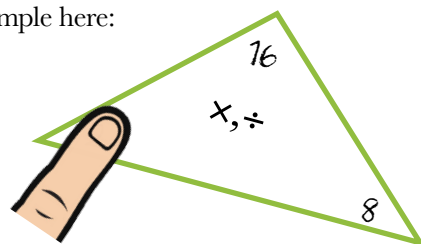


1. Purchase 3x5 notecards with one side ruled or use cardstock paper.
2. Cut the paper into 3-inch tall triangles identical to the sample.
 - For K-2 [Addition-Subtraction](#) facts 1-12 you will need 38.
 - For facts [13-20](#), cut an additional 56 triangles. (Cut a few extra to allow for errors).
 - For [Multiplication-Division](#) facts 1-12 you will need 78 cards

BASIC FACTS 1-12 (REPEATED)											
1, 1, 2	1, 2, 3	1, 3, 4	1, 4, 5	1, 5, 6	1, 6, 7	1, 7, 8	1, 8, 9	1, 9, 10	1, 10, 11	1, 11, 12	
2, 2, 4	2, 3, 6	2, 4, 8	2, 5, 10	2, 6, 12	2, 7, 14	2, 8, 16	2, 9, 18	2, 10, 20	2, 11, 22	2, 12, 24	
3, 3, 9	3, 4, 12	3, 5, 15	3, 6, 18	3, 7, 21	3, 8, 24	3, 9, 27	3, 10, 30	3, 11, 33	3, 12, 36		
4, 4, 16	4, 5, 20	4, 6, 24	4, 7, 28	4, 8, 32	4, 9, 36	4, 10, 40	4, 11, 44	4, 12, 48			
5, 5, 25	5, 6, 30	5, 7, 35	5, 8, 40	5, 9, 45	5, 10, 50	5, 11, 55	5, 12, 60				
6, 6, 36	6, 7, 42	6, 8, 48	6, 9, 54	6, 10, 60	6, 11, 66	6, 12, 72					
7, 7, 49	7, 8, 56	7, 9, 63	7, 10, 70	7, 11, 77	7, 12, 84						
8, 8, 64	8, 9, 72	8, 10, 80	8, 11, 88	8, 12, 96							
9, 9, 81	9, 10, 90	9, 11, 99									
10, 10, 100	10, 11, 110										
11, 11, 121	11, 12, 132										
12, 12, 144											

3. Use the number chart to create all the basic facts (without any repetitions).
 - Use the unlined side.
 - Place the **LARGEST** number on the top point.
 - Place the other two numbers on the **LOWER** points.
 - Write the operations in the center. It will either be **+ and -** OR **x and ÷**
4. Begin using the cards for only 5 minutes. Tell the student that this is not a race; it's about practicing to discover how many facts are already known. Expand the practice time once the process and rules are understood.
5. Hold the card with your finger covering one of the **FACTORS**.

Example here:



This says:

$\square \times 8 = 16$, $8 \times \square = 16$,
 $16 \div \square = 8$, and $16 \div 8 = \square$.

6. Ask the student to give you all 4 problems and answers. Place correct replies and errors in separate piles.
7. Count up the correct cards. The goal is to gradually shift all cards into the correct pile.
8. Work with the student to draw or otherwise show/work out the missed process(es). Then transfer their best process idea onto the back of that specific triangle card.
9. Suggestion #1: Make a chart to show the correct or "owned" cards. (Graphing is another math task you might incorporate while working on basic facts cards. (Download the [Addition-Subtraction Record Charts A & B](#) and [Multiplication-Division Record Chart One](#) on my website)
10. Suggestion #2: Once a student knows the answer for all of the cards, continue using them as a review once or twice every month.

Math Resources

- Search the internet using general categories: math computation, story problems, math tricks, math review, math practice, math puzzles by grade level.
- Visit Pinterest, Teacherspayteachers.com, and Teachersnotebook.com for worksheets and games.
- Checkout Khan Academy and other online math support programs/sites. May require \$ or membership.
- Copy my games as posted on my website ([download here](#))
- Investigate sites such as: homeschoolmath.net for practical and entertaining ideas.

One Way to Look at It (Q&A)

Dear Paddy,

My fifth-grade daughter still counts with her fingers and uses tally marks to solve problems. Is there a way to help her move beyond this skill level?

signed *In a Math Muddle*

Dear Muddled,

I've found games to be an excellent way to help students add, subtract, skip count, multiply, and divide. First, start using only the numbers your child is comfortable with in the games you select. (My [games](#) have both difficulty levels and time suggestions to help you make an appropriate selection.)

Next, provide simple counting tools to help develop more and more number sense. I suggest having a hundred pennies, bread tags or small flat markers handy to work through unfamiliar, difficult, or confusing math problems. Touching and moving objects provides a sensory connection which helps develops understanding.

If you keep practicing in game mode, it will be fun but you will also be building math computation skills.

Good Luck!



I want to hear from you!

Tell me about your adult assistant achievements, successes and challenges.

I welcome your feedback, ideas for future newsletter content and contact information for anyone you would like to receive this free resource.

I'm available for interviews, speaking, training seminars and guest blogging.

Write me at Paddy@PaddyEger.com or call 425-420-5161 for more information.

Grade 2: The group will need 7 tables.

Grade 5: Each piece will weight 1/9 of a pound or 1.77 oz.

Grade 8: The optimal number is 4 teachers, 6 chaperones and 90 students.



Small Group Tool Pouch

Need Tools for Small Groups?

Tired of kids in small groups needing a sharp pencil? a paper clip? scissors? Want a way to keep them focused and seated?

Each pouch can be fastened into a 3-ring notebook or kept loose in the zip closed pouch. It's easy to grab up and take outside the classroom as well.

Kits are available for \$6.50 USD each and includes tax and shipping within the U.S. Supplies are limited. Receive delivery within 14 business days.

FINAL NOTES

Getting kids organized is like building Rome; it won't happen overnight. Pick out three most important tasks, help kids become comfortable and able to use them, then add one or two more and repeat. If you model the skills you wish to see in kids, it helps!

Looking for Ideas to Train Para Educators or Classroom Volunteers?

Training classroom support takes more time than most educators have available.

Book a training session today!!

- * Sessions are tailor-made to meet your needs.
- * Presentations are hands-on and interactive.
- * Training sessions range from 45 minutes to 3 hours.

Want details? Contact me, Paddy Eger, at 425-420-5161 (west coast business hours). Together we'll create a plan that works for you anytime of the year.

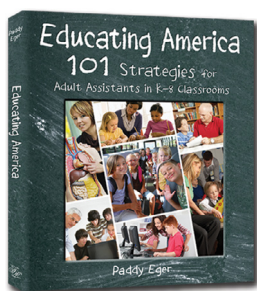


Educating America materials provide quick and easy ideas!

They include the award-winning *Educating America: 101 Strategies for Adults in K-8 Classrooms*, a desktop flipbook and a workbook. Take a look inside each when you visit www.paddyeger.com and select the Educating America portion of the website.

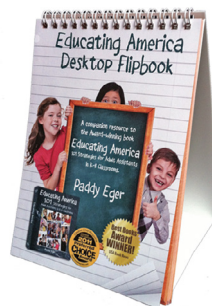
The book, flipbook, and workbook are available from your favorite bookstores, Tendril Press, and online sources for ebooks. At this time, the student reminder cards are available through my website www.paddyeger.com, at Teacher's Notebook and Teachers Pay Teachers or by contacting me directly at 425-420-5161.

Check out my materials online as seen on www.TeachersPayTeachers.com and on www.TeachersNotebook.com Both resources also provide parent ideas as well as information for educators.



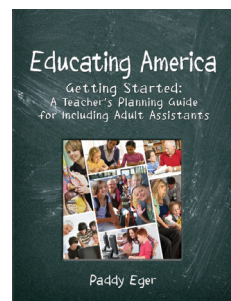
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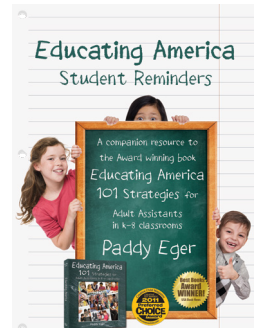
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