MS.PATTERSON'S 2ND GRADE

CLASSROOM NEWSLETTER

OCTOBER 2024

A Message From Ms. Patterson

Hello Parents,

Welcome to this month's math newsletter! In this edition, we will be exploring a topic that often sparks interest and curiosity: the use of calculators in the elementary math classroom. As our second graders begin to explore new concepts, they are developing foundational skills that they will carry with them throughout their education and beyond. With the use of calculators becoming a part of many daily activities, we will explore the role that these tools can play in your child's education journey.

In this edition of our newsletter, we'll explore the pros and cons of using calculators in class. We will talk about the calculator debate and about the NTCM and what this organization is. You will find resources for your child to practice more with using a calculator, and also a fun calculator activity that you can do at home with your child.

Thank you for being a partner in your child's education journey. Together, we can help our students become confident problem-solvers and critical thinkers, whether they're working with or without a calculator!

Thank you,

Ms. Patterson

What You'll Find In This Edition

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National Council of Teachers of Mathmatics (NTCM)

What is the National Council of Teachers of Mathematics (NCTM)?

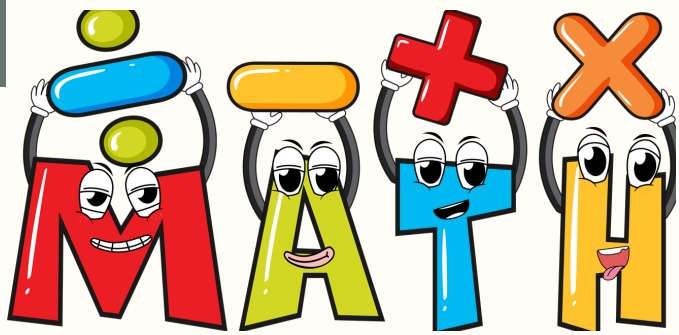
The National Council of Teachers of Mathematics or NTCM for short was founded in 1920 in Reston, Virginia. The NTCM is the worlds largest mathematics education organization.The NTCM advocates to raise awareness on issues pertaining to mathematics teaching and learning.

-NCTM, 2011

NCTM Mission Statement

The National Council of Teachers of Mathematics advocates for high-quality mathematics teaching and learning for each and every student.

-NCTM, 2011



What view does the NCTM have on calculators in the classroom?

The NTCM holds a positive view on the use of calculators in the classroom. They believe that calculators are tools that can help young students have a better understanding of math. According to the NCTM “calculators have an important role in supporting and advancing elementary mathematics learning. The benefits of their selective and strategic use are twofold. Calculators can promote the higher-order thinking and reasoning needed for problem solving in our information- and technology-based society, and they can also increase students’ understanding of and fluency with arithmetic operations, algorithms, and numerical relationships (NCTM, 2011)”.

What Is the Calculator Debate

The debate on calculators in the classroom has been around for many years, should young students be allowed to use calculators in math class? Some believe that calculators are valuable tools that can help support young learners in the classroom while others believe that learners may become too dependent on these tools. On one side, people feel that young students using calculators at such an early age could prevent them from developing a strong foundation of basic math skills (arithmetic and subtraction). Some people also believe that calculators will hinder students from developing procedural fluency. On the other side of the debate people can see the benefit of allowing young learners the opportunities to use calculators. The NTCM believes that allowing calculator use allows students more of an opportunity to use their mental abilities for problem solving and reasoning (NCTM, 2015). According to the website Math Geek Mama this debate may never be resolved but a balance can be found, the calculator can be a great learning tool to students if used in the appropriate setting and in the appropriate way (Math Geek Mama Bethany,2017).

PROS

- Calculators can help students save time on basic arithmetical calculations. Students can use this time to focus on solving problems conceptually.
- It helps students build technological knowledge.
- It allows students to think abstractly.
- Students who use calculators have a better attitude towards math and are more confident.
- Using a calculator properly can enhance number sense, conceptual development and visualization.
- It makes math more fun!

CONS

- Calculators can make students dependent. Students will not be able to do basic math concepts. Calculators are a good tool but should not be used all the time.
- Calculators can cause students to try out a variety of random math operations, with students truly knowing the reasoning behind what they did.
- Can cause students to have a false sense of confidence about their math abilities.

Ms. Patterson's view on calculators in the classroom

In our math class, I believe that calculators are a valuable tool that can enhance students' learning and understanding of math. According to Erin McCauliff, they believe that the use of calculators helps students to have a better attitude towards math and encourages them to be more persistent at problem solving (McCauliff). While it is important for students to practice and learn basic calculations, calculators can help them focus on understanding broader math concepts without students getting stuck trying to calculate computations that may take more time. By using calculators, students can check their work, explore numbers in new ways, and gain confidence in problem-solving. According to an article by The Southwest Educational Development, research shows that calculators can help students improve their paper and pencil skills and that students who use calculators do not lose their basic computation or problem-solving skills (SEDL, 1998). With proper guidance calculators can enhance student learning.

How Will Calculators Be Used In Our Classroom

In class, we will use calculators selectively for activities that encourage conceptual understanding and critical thinking, ensuring they enhance learning rather than replacing foundational skills. This balanced approach will help students build both confidence and competence in math. I want to use calculators as a supportive learning tool while stressing the importance of students learning their foundational skills. According to Edutopia when you allow students the chance to use calculators you allow them to experience math in a whole new way (Baum-Sehon, 2020).

Parent's Corner

Here are a few fun calculator activities for you to do at home with your child so that they can get more practice using a calculator. Have Fun!

VDOE Standard

2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and estimate, represent, solve, and justify solutions to single-step and multistep problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed 100.
d) Demonstrate fluency with addition and subtraction within 20 by applying reasoning strategies (e.g., doubles, near doubles, make-a-ten, compensations, inverse relationships).

Birthday Calculator Challenge! In class students used a calculator and their birthday to complete this activity.
Use a calculator to complete this fun birthday challenge at home with your child..

The Ruff Ruffman Show

Birthday Calculator Math

Home Activity

This activity will help your child:

- Understand the concept of days, weeks, and months
- Practice addition and early multiplication

What's the point?

Using a calculator to solve a repeat addition problem and then solving the same problem with multiplication is a great way to introduce kids to the relationship between addition and multiplication. When the problem involves groups of weeks and months, kids learn about the calendar as well.

Book Suggestions

- **365 Penguins** by Jean-Luc Fromental
- **A Child's Calendar** by John Updike

Related Game

FETCH! Fone
Explore the concepts of time and money.

Find more games and activities at pbskidsforparents.org

https://thinktv.pbslearningmedia.org/resource/kids-lab-activities-fetch-birthday-calculator-math/birthday-calculator-math-fetch/

Birthday Calculator Math

Home Activity

How do I do it?

1. Ruff Ruffman lost his calculator. He bought a new one, and made up some calculator games to test it out. Ask your child if she'd like to play Ruff's calculator games. She may think she's just having fun with a calculator, but she'll really be learning about weeks, months and years.
2. For the first game, ask your child to use the calculator to figure out how many months old they'll be on their next birthday. Explain to them that there are 12 months in a year. So to find out their age in months they'll have to add as many 12s as they are years. For example, if they'll be 7 on their next birthday they'll have to add 12 seven times: 12 + 12 + 12 +12 + 12 + 12 + 12 = 84. They'll be 84 months old! Show your child that multiplying 7 x 12 on the calculator is another way to find out how many months there are in 7 groups of 12.
3. Next, ask your child to calculate how many weeks old they'll be on their next birthday. There are 52 weeks in a year, so they'll have to add 52 a total of 7 times: 52 + 52 + 52 + 52 + 52 + 52 + 52 = 364. They'll be 364 weeks old! Multiplying 52 x 7 is another, quicker, way to get to the same answer.
4. If they get a year older every day, ask them to figure out how old they would be in a week. Explain that there are seven days in a week, so at the end of a week they would be seven years older!
5. Suggest that your child try out some of these games on other members of the family, including their parents!

Supplies

- **Calculator**
- **Stop watch or watch with a second hand**

Take It Further

Another fun calculator activity that combines math and science is measuring your heartbeat. Show your child the best place to feel their pulse (under their chin or at the wrist). Use a stopwatch or the second hand of a watch to measure the number of beats in 10 seconds. Either add this number together 6 times or multiply it by 6 to get how many beats per minute. Ask your child what they thi will happen to their heartbeat after they jump up and down for a minute. Try it and find out.

In class students used calculators to practice solving these problems.

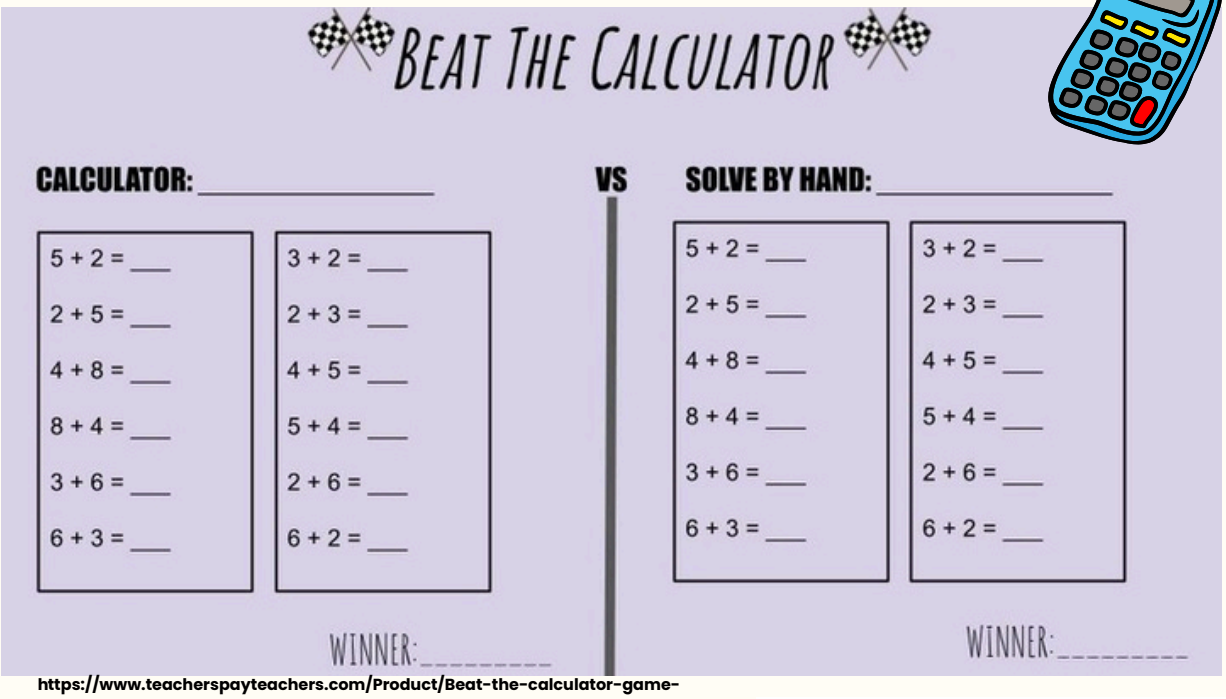
My addition sheet Up to 20 - C Name _____	My addition sheet Up to 20 - C Name _____
12+3=	12+3=
13+4=	13+4=
15+5=	15+5=
11+6=	11+6=
17+2=	17+2=
18+1=	18+1=
16+3=	16+3=
15+2=	15+2=
14+4=	14+4=
19+0=	19+0=
9+8=	9+8=

My addition sheet Up to 20 - B Name _____	My addition sheet Up to 20 - B Name _____
14+3=	14+3=
15+3=	15+3=
16+3=	16+3=
11+4=	11+4=
12+4=	12+4=
13+4=	13+4=
17+2=	17+2=
18+2=	18+2=
16+4=	16+4=
15+4=	15+4=
13+5=	13+5=

https://www.teacherspayteachers.com/Product/Addition-and-Subtraction-worksheets-1951501

Beat The Calculator

Here's a game you and your child can play together. I've included a sample worksheet for practice but you can use flash cards, or write down your own problems for practice. How this game works is that one person will use a calculator and the other person will use their brain to solve math problems. If you use the included worksheet you can a set a timer and see who solves the problems the fastest, the calculator or the brain. If you use flash cards you can draw a card and see who is able to answer the fastest, the person with the calculator or the person using only their brain.



https://www.teacherspayteachers.com/Product/Beat-the-calculator-game-10126973

Use your calculator to solve the problems and complete the code. Use the clues to find the answer to the halloween joke!

Answers on p.7

https://www.math-salamanders.com/add-and-subtract-within-20.html

Name Date

HALLOWEEN CODEBREAKER 1A

ADDITION AND SUBTRACTION FACTS TO 20

Use the clues to work out the answer to the Halloween joke.

A	B	C	E	G	H	I	M	N	O	R	S	T	U	Y	-	!
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Why are ghosts no good at lying?

Letter	B										
Number	2										
Fact	10-8	2+2	12-9	10-9	7+7	2+10	15-11		8+7	2+8	16-2

Letter											
Number											
Fact	10-7	9-8	5+4		2+10	12-8	20-16		6+5	12-5	4+12

Letter											
Number											
Fact	0+5	15-9	7+6		20-7	13-7	2+9	19-9	5+9	17-12	14-8

Letter					
Number					
Fact	5+8	12-6	13-9	12-4	7+10

Answer _____

Free Math sheets, Math games and Math help
MATH-SALAMANDERS.COM

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Answer Key for p.6

Name Date

HALLOWEEN CODEBREAKER 1A ANSWERS

ADDITION AND SUBTRACTION FACTS TO 20

Use the clues to work out the answer to the Halloween joke.

A	B	C	E	G	H	I	M	N	O	R	S	T	U	Y	-	!
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Why are ghosts no good at lying?

Letter	B	E	C	A	U	S	E		Y	O	U
Number	2	4	3	1	14	12	4		15	10	14
Fact	10-8	2+2	12-9	10-9	7+7	2+10	15-11		8+7	2+8	16-2

Letter	C	A	N		S	E	E		R	I	-
Number	3	1	9		12	4	4		11	7	16
Fact	10-7	9-8	5+4		2+10	12-8	20-16		6+5	12-5	4+12

Letter	G	H	T		T	H	R	O	U	G	H
Number	5	6	13		13	6	11	10	14	5	6
Fact	0+5	15-9	7+6		20-7	13-7	2+9	19-9	5+9	17-12	14-8

Letter	T	H	E	M	!
Number	13	6	4	8	17
Fact	5+8	12-6	13-9	12-4	7+10

Answer Because you can see right through them!

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