## Summer Math Adventure K-2



WISCONSIN MATHEMATICS COUNCIL,INC.


## Introduction and Welcome

Welcome to the K-2 Summer Math Adventure program! You can access the program at the following website:

## bit.Iy/WMCSummer

Use the grid of activities to explore math this summer. Complete all of the activities in a row, column, or diagonal to earn a prize. Complete all 25 activities for a bonus prize!

Click on the links in the grid to explore different activities. Click on the image of the grid in the lower right corner to return to the grid. Have fun!

Visit https://forms.gle/YePghR3rNj6JYYuJ7 or scan this QR code with your mobile device to help us make this program better


## Math Adventure


Scavenger Hunt
Make a table similar to the one on the left.
Search around your home - inside or outside - for groups of
different sizes.
Write the item, or draw a picture of the item, in your table.
For example, if you find 5 forks in a drawer, write "forks" or
draw a fork in the box with a 5 .
Happy searching!

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\qquad \text { Measuring Without a Ruler }
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Find some small common household items（for example，
spoons or squares of toilet paper）
Using your household items，measure different objects
around your home（for example，how many spoons high is
your chair？How many squares of toilet paper across is
your table？）
Measure the same objects with different household items．
Write down the objects you measured along with the
measurements you made．
Adapted from：http：：／／mww．pbs．org／parents／rafts－and－experiments／measure－things－without－aruler

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What's Outside Your Window?
$\begin{aligned} & \text { Pick an amount of time to watch outside your } \\ & \text { window. } \\ & \text { Keep track of what you see. Are people walking } \\ & \text { by? Are birds hanging out? How many trees do } \\ & \text { you see? Collect data on what you see. } \\ & \text { Find a way to visualize the information you collect. } \\ & \text { Maybe use a chart or a timeline. } \\ & \text { Be creative and have fun! }\end{aligned}$
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HIH:

Adapted from: https://www.youcubed.org/resources/whats-going-on-outside-your-window-k-12-video/
The Shoe Rack


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|  |  |  | $\frac{5}{8}$ |  | $\begin{aligned} & \frac{3}{4} \\ & \frac{8}{2} \\ & \frac{5}{2} \\ & \vdots \end{aligned}$ | 咗 |

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| K-2 Summer Math Program |  |  |  |  |
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| Around the Home | Oubsors | The Ats | Books | Games and Puzzies |
| Scavenger Hunt | Bean Bag Toss | Symmety At | seep <br> Sheep Wont | Number Hunt |
| Estimation | Mati Wak | Make a Math Art Book | Maxs Math | Hexagon Challenge |
| Whars Ouside Your Window? | Neighbohood Numbers | Tesselatons | One Big Pair of Underwear | Add and Suberact Bingo |
| The Shoe Rack | Math Play | Mondrian Window At | Counting on Catherine | Sumitup |
| Cracy Train | Shapes at the Park | Quadrilateral Art and Graphing | The Animals Would Not Sleep | Counting Simon Says |

Bean Bag Toss
Use sidewalk chalk to draw a target circle.
Toss bean bags, or wet sponges, or balled-up
socks at the target.
Talk about how many are in the circle, and how
many are outside.
Create a scoreboard with chalk to keep track of
the tosses.


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Sidewalk Chalk Challenge
Counting by 2's, keep writing numbers on the squares moving
away from your home.
Starting at your home count out loud by 2's forward away from
your home.
Count out loud backward toward your home.
Tomorrow do the same thing in the other direction, but count by
5's.
Next week, do the same thing but count by 10's.
Neighborhood Numbers


| $\begin{array}{c}\text { Games and } \\ \text { Puzzles }\end{array}$ |
| :---: |
| Number Hunt |
| $\begin{array}{c}\text { Hexagon } \\ \text { Challenge }\end{array}$ |
| $\begin{array}{c}\text { Add and Subtract } \\ \text { Bingo }\end{array}$ |
| Sum R Up |

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$\frac{8}{5}$
$\frac{8}{5}$
$\frac{8}{8}$
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$\quad$ Math Play
Go for a walk to somewhere in your neighborhood.
Find opposites: something high, low, near, and far
Find shapes: triangles, circles, squares, rectangles
Find this many: groups of a few, some, and a lot
Find sizes: something big, small, short, and tall
Find ways to go: over, under, in and on
Adapted from: https://www.mathanywhere.org/printables/
Shapes at the Park
Go to the park with a special mission - to find all
the shapes you can!
Use pictures, numbers, and/or math words to show
or tell what you see

Adapted from: https://mathathome.mathlearningcenter.org/activity/1665


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Adapted from: https://themusicclef.blogspot.com/2013/03/sound-songs.html
Make a Math Art Book
Click on the image on the right to print a template for
your book.
Cut out the pages and the inner shapes. Keep and
color the frames of the pages.
Layer the pages and staple along the left side.

Tessellations
Cut a square out of heavy paper.
Draw a design from corner to corner on the bottom of
the square. Cut this out and tape it to the top of the
square.
Draw another design from corner to corner on the left
hand side of the square. Cut this out and tape it to the
right side of the square.
Trace this pattern onto paper and color your design.
Adapted from: https://www.whatdowedoalday.com/math-ar-tessellations/
Mondrian Window Art
And
Quadrilateral Art and Graphing


Quadrilaterals



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Sheep Won’t Sleep

If this book is not available, substitute any book on the list
of books at this link.
As you read, ask yourself, "what shapes are on this
page?"
As you read, ask yourself, "what numbers are on this
page?"
Max saw a 6 (or was it a 9?) lying in the grass. Why
was Max unsure of what number it was? How can
letters like this?
list of books at this link.
One Big Pair of Underwear





Katherine was known for asking plenty of questions. What
questions do you have about her or her work?
Counting on Katherine
Why do you think Katherine enjoyed working on very hard
problems?
Have you ever been blocked from doing something you
really wanted to do? How did you react?
Katherine was known for asking plenty of questions. What
questions do you have about her or her work?

[^0]Counting on Katherine


The Animals Would Not Sleep
What was your favorite way to sort Marco's animals?
Can you think of another way to sort the animals?
Gather all of your stuffed animals, and practice sorting them
like Marco did.
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\begin{aligned}
& \text { Play a game called "Secret Selection" with a friend or } \\
& \text { parent. Line up all of your stuffed animals (or any other } \\
& \text { object). Secretly choose one of the objects. Have the other } \\
& \text { person ask yes-no questions to try to guess which object } \\
& \text { you chose. } \\
& \text { If this book is not available, substitute any book on the list of } \\
& \text { books at this link. }
\end{aligned}
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Number Hunt
Have a parent create a puzzle like the following:

- It's more than 43 .
- It's less than 50 .
- It's an even number.
Woth digits are the same.
The parent reads the clues, and the child uses a
100 chart to try to determine the winning number.
adapted from: https://www.youcubed.org/resources/number-hunt-k-8-video/


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| do 17 wins | angavas co buxunos | $\begin{gathered} \text { In } \\ \text { ncpan ueupuow } \end{gathered}$ | Kold $4 \times \mathrm{N}$ | poys 204s 2u1. |
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Before and After
You will need a deck of cards. Use only the cards 1 (Ace)
through 10.
Deal each person five cards and leave the rest of the
cards face down on the table. The youngest player starts
by playing any card in their hand. The next player can
play a card either one more (before) or one less (after)
than the card on the table. If a player can't play, that
person should draw cards until they can play.
Take turns until someone runs out of cards, or neither
player can play.
As a variation, you can play with more than two players!

Add and Subtract Bingo
Draw a $3 \times 3$ bingo card．Write FREE in the center square，
and any different numbers $0-15$ in the remaining squares．
Use a deck of cards．Remove the face cards（jacks，queens，
kings）and shuffle the cards．An ace counts as a＂ 1 ＂．
Draw two cards．To claim a space，write an addition equation or a subtraction equation that matches one of the numbers written on your card．

Continue until someone has three in a row！

[^1]Adapted from：

|  |  | $\frac{5}{5}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{2}$ |  |  | $\begin{aligned} & \frac{2}{2} \\ & \stackrel{y}{E} \\ & \underset{N}{5} \end{aligned}$ | $\begin{aligned} & \frac{8}{8} \\ & 5 \\ & \frac{2}{2} \\ & \frac{2}{8} \\ & 8 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underset{\sim}{E}$ | $\begin{aligned} & \frac{8}{0} \\ & \hline \end{aligned}$ | $\begin{aligned} & 5 \\ & \frac{8}{3} \\ & \frac{8}{5} \\ & \frac{8}{5} \end{aligned}$ | 兵 $\frac{8}{n}$ $\frac{1}{2}$ |  |  |  |
| $\sum_{i}^{5}$ | $\begin{aligned} & \frac{9}{2} \\ & \text { 景 } \end{aligned}$ |  | $\begin{aligned} & \frac{5}{5} \\ & \frac{5}{4} \\ & \frac{3}{8} \\ & n \\ & \frac{8}{8} \\ & \frac{8}{2} \end{aligned}$ |  | $\begin{aligned} & \text { 虎 } \\ & \frac{5}{3} \\ & \frac{5}{4} \\ & \frac{7}{8} \\ & \frac{8}{2} \end{aligned}$ |  |
| $\begin{aligned} & \stackrel{\rightharpoonup}{x} \\ & \underset{y}{y} \end{aligned}$ | $\begin{aligned} & \frac{8}{8} \\ & \frac{8}{6} \end{aligned}$ | $\begin{aligned} & \frac{2}{2} \\ & \text { en } \\ & \frac{3}{3} \\ & 5 \\ & 5 \end{aligned}$ | $\begin{aligned} & \text { 美 } \\ & \frac{3}{3} \\ & \frac{1}{3} \end{aligned}$ | $\begin{aligned} & \frac{8}{8} \\ & \frac{8}{8} \\ & \frac{8}{8} \\ & \frac{8}{2} \\ & \frac{1}{2} \end{aligned}$ | $\begin{aligned} & \frac{3}{8} \\ & \frac{8}{2} \\ & \frac{8}{2} \end{aligned}$ | $\begin{aligned} & \frac{8}{6} \\ & \frac{1}{5} \\ & \frac{8}{5} \\ & \frac{5}{5} \end{aligned}$ |
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Sum It Up
Play with a partner. Create a template like the
one on the right.
Take turns rolling a die. Write the number on
the die on any available space on your side.
Play continues until each player has rolled the
die six times and has filled in every line.
Add the numbers. The player with the highest
number wins!
https://www.mathlearningcenter.org/sites/default/files/pdfs/home-learning/f
amily-games/FamilyGames_SumItUp.pdf

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## K-2 Math Book List

Readers - substitute any book on this list for any one of the books on your grid.
Parents - read any book with your child and discuss the math within the book.

Absolutely One Thing: Featuring Charlie and Lola by Lauren Child<br>The Animals Would Not Sleep by Sara Levine<br>Billions of Bricks: A Counting Book about Building by Kurt Cyrus<br>Bird Count by Susan Edwards Richmond<br>The Boy Who Loved Math by Deborah Heiligman<br>Cao Chong Weighs an Elephant by Songju Ma Daemicke<br>Counting on Katherine: How Katherine Johnson Saved Apollo 13 by Helaine Becker Counting the Stars: The Story of Katherine Johnson, NASA Mathematician by Lesa Cline-Ransom<br>Count on Me by Miguel Tanco<br>The Girl With a Mind for Math: The Story of Raye Montague by Julia Finley Mosca Hippos Go Berserk! by Sandra Boynton<br>How Many Jelly Beans? A Giant Book of Giant Numbers! by Andrea Menotti<br>Is 2 a Lot?: An Adventure with Numbers by Annie Watson and Rebecca Evans<br>Lifetime: The Amazing Numbers in Animal Lives by Lola M. Schaefer<br>Max's Math by Kate Bank<br>Nothing Stopped Sophie: The Story of Unshakable Mathematician Sophie Germain by Cheryl Bardoe<br>One Big Pair of Underwear by Laura Gehl<br>One Grain Of Rice: A Mathematical Folktale by Demi<br>Pigeon Math by Asia Citro<br>Shapes, Reshape! by Silvia Borando<br>Sheep Won't Sleep: Counting by $2 \mathrm{~s}, 5 \mathrm{~s}$, and 10 s by Judy Cox<br>$3 \times 4$ by Ivan Brunetti<br>Uma Wimple Charts Her House by Reif Larsen and Ben Gibson<br>We Are One: How the World Adds Up by Susan Hood<br>When Sophie Thinks She Can't by Molly Bang<br>Zero the Hero by Joan Holub

Librarians - use this list to create a display of books for your Summer Math Program.


[^0]:    substitute any book on the
    If this book is not available,
    list of books at this link.

[^1]:     dSubtract．pdf

