



Avoid the Summer Slump

Reading & Math at Home

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What is Summer Learning Loss?



2	Average months of reading loss over the summer
2.6	Average months of math skills lost over the summer
6	Weeks of the fall spent making up for lost skills
3	Years behind students who have experienced summer learning loss are from their peers by 5th grade
24	Percent students from low-income households gain over the summer on reading tests when they have access to books
10	Percent students from low-income households lose over the summer on reading tests when they don't have access to books
96	Percent of teachers who say it's important for students to practice the skills they've learned over the summer
98	Percent of parents who say that if they knew children were going to experience summer learning loss, they would try to prevent it



DURING THE SCHOOL YEAR
RESOURCES ARE TURNED

ON

FOR ALL KIDS

WHEN SCHOOL IS OUT
RESOURCES ARE TURNED

OFF

FOR KIDS WHO DON'T
HAVE ACCESS TO THEM
AT HOME OR THROUGH
SUMMER PROGRAMS



LOWER
INCOME
CHILD

MIDDLE
INCOME
CHILD

KINDERGARTEN



Horizons National

Top 5 Things To Beat Summer Slide

1. Read. Every day.
2. Practice math skills through games and stories.
3. Visit libraries frequently.
4. Take advantage of summer programs.
5. Have fun and get outside... you can learn outside!

What is the Summer Slide?

Summer Slide is the loss of knowledge over summer vacation.

Summer learning loss during the grade school years has been shown to have consequences in later academic life, including struggling in Middle School, dropping out of High School and whether students get to attend college**



Most children lose about 2 months of knowledge in mathematical computation skills during the summer months.**



Learning loss during summer months has a cumulative effect. ***



Summer math programs can prevent learning loss and help students get ahead.**

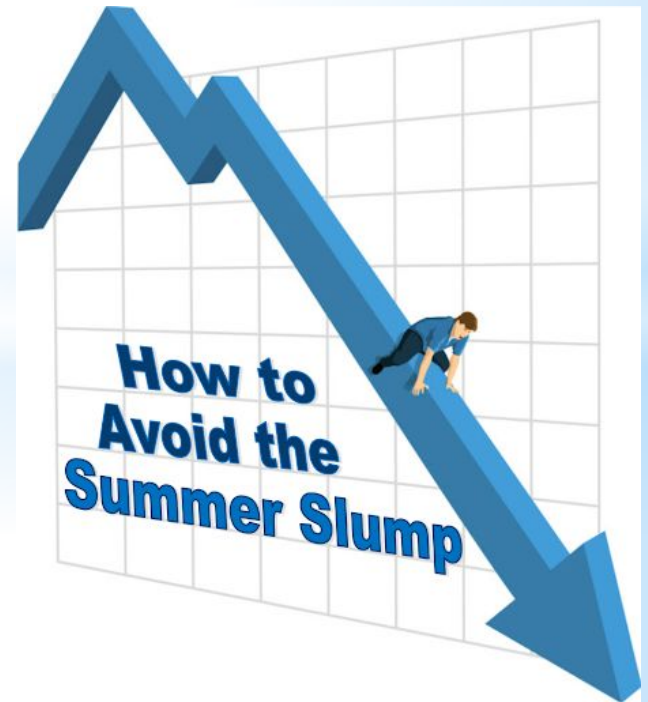
Research on Summer Slide

[Reading Rockets Summer Loss article](#)

[Harvard EDU article on math-loss](#)

[Seven Ways to Prevent Summer Learning Loss](#)

[Summer Reading Makes A Difference](#)



Best ways to support reading at home:

- *Read aloud
- *Pair read
- *Listen and respond to your child's reading
- *Set up a home library
- *Model reading everyday



The **MORE** that you **READ**,
the more **THINGS** you will **KNOW**.
The **MORE** you **LEARN**,
the more **PLACES** you'll **GO!**
~ Dr. Seuss

Read Aloud

When we read to our children we build a love of reading at a very young age.

Our children hear great literature, fluent reading, vocabulary that is more rich than they are able to read on their own.

We model speaking, listening and reading.

We bring the story alive through our own voices.

Read all over... cereal boxes, magazines, street signs, picture books, chapter books.

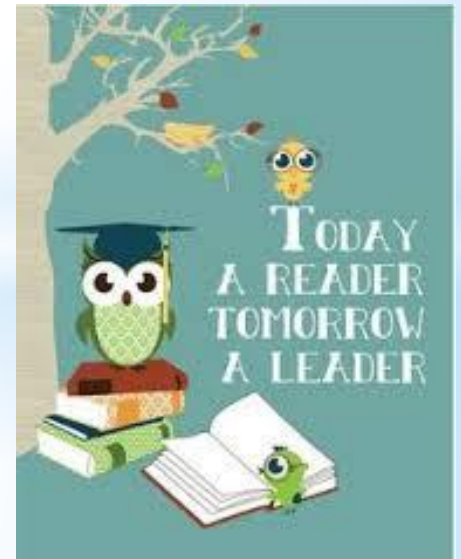
As parents, you are your child's first and best teacher!

Kids are never too old to listen to a story!



Pre-Reading

- * Make it fun!
- * Be involved
- * Sing songs
- * Rhyme as much as possible
- * Read to them every day
- * Play phonemic awareness games
- * Nursery Rhymes
- * Classics



Why Can't I Skip My 20 Minutes of Reading Tonight?

Student "A"
reads **20 minutes**
each day

3600 minutes in
a school year

1,800,000 words



90th percentile

Student "B"
reads **5 minutes**
each day

900 minutes in
a school year

282,000 words



50th percentile

Student "C"
reads **1 minute**
each day

180 minutes in
a school year

8,000 words



10th percentile

By the end of 6th grade Student "A" will have read the equivalent of 60 whole school days. Student "B" will have read only 12 school days. Which student would you expect to have a better vocabulary? Which student would you expect to be more successful in school...and in life?

(Nagy & Herman, 1987)

Your Home Library

- * Create a space for reading
- * Get books that your child is interested in
- * Get lots of different types of literature (classics are lost)
- * Utilize the public library
- * Get a fun magazine subscription
- * Snuggle up with your child
- * Model reading daily
- * Make a time in the day where everyone reads
- * Read to them
- * Make themed reading days



[Avoid the battle](#)

How to Choose Just Right Books

Read a page from a book that interests you!
Put a finger up for each word that
you do NOT know.



or



Too easy! Put it back and choose another!



Just right! Start reading and enjoy the book!



A little challenging but try it – you might like it!



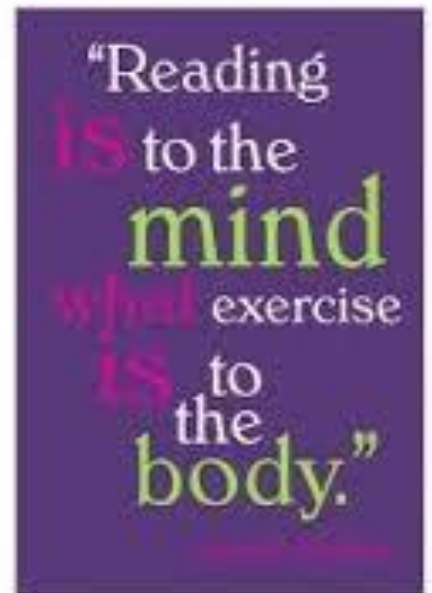
Very challenging! Read this book with a partner!



Too hard right now! Save it for later or have someone read it to you.

Pair Reading

- Choose a book of interest
- Take a picture walk
- Talk about the title
- Make predictions about the story
- Read with your child... you can choose to read to them or with them
- Discuss vocabulary
- Discuss rhyming words
- Apply the story to their world



Response Cues:

- ❖ Predictions
- ❖ Who, what, where, why, how questions to start
- ❖ Open ended questions
- ❖ How does this compare to? Apply to their own life
- ❖ Is there a theme throughout the book...
rhyming words, vowel sound, repetition
- ❖ Share your own thinking as you read with them
I wonder...

*A book is a gift you can
open again and again.*

—Garrison Keillor

Reading over the summer

Require at least 20-30 minutes of independent/shared reading a day ... model and read with them or next to them.

Find a great list of recommended reading for your grade level:

www.scholastic.com

www.commonsensemedia.org

www.sspl.org/children/booklists

www.raz-kids.com

www.getepic.com

[Reading Rocket Reading list](#)

Ask you classroom teacher for just right books

Find a classic novel to read to your child.



Program Options

AES Summer Learning Experience

Pitkin County Library Summer Reading Program

Scholastic Summer Express

Summer Bridge Activities

Summer Skills

Regis University

Math over the Summer can be FUN!



Think real life, think
meaningful, don't think
worksheets...

[summer math ideas link](#)

- ★ View **road trips** as mobile classrooms...
- ★ Use **everyday errands** as learning opportunities...
- ★ Transform **routine chores** into lessons...
- ★ Turn **collections** into math lessons...
- ★ Follow your **child's interest** to guide learning...



Sidewalk Chalk Math

Parents can turn playtime into learning time with some simple tweaks on the classic games and toys.

Sidewalk chalk games and art provide a great opportunity to count and learn about shapes and sizes.



Hidden Math



Math Stories- Check out [this link](#) for math in children's literature, [this link](#) for Bedtime Math books, [this link](#) for books to inspire curious kids, and [this link](#) for math stories your kids will enjoy.

Math and Sports- follow statistics, make a graph to track wins, look for geometric shapes, etc.

Math in Games- keep score, play with dice, cards, and marbles

Math at Home, Around Town, and In Nature-
Estimate dimensions, windows, stairs, hike around and find symmetry in nature, count pairs of socks, etc.

Math at the Store- Which is a better deal?, estimate cost of bill, check out expiration dates and compare, check out sales, find the most expensive items, figure out the sales tax.

Math and Eating- prepare recipes with fractions and symmetry, check the list of ingredients and find the best prices at the store or online

Math Travels- check out maps, estimate distance and travel times, compare gas prices, add, subtract, multiply, or divide numbers on license plates.





More Fun Ideas

- *Go shopping
- *Play with money-collect change
- *Look for and create patterns
- *Fold napkins into fractions
- *Plan a shape scavenger hunt
- *Practice time with a stop-watch
- *Create a map of your neighborhood
- *Use ice cream to make fraction sundaes
- *Set records with a stop-watch





More Fun for EVERYONE



- Water balloon toss
 - Fruit patterns
 - Jumping rope
- Make up math stories
- READ READ READ and find math in stories
 - Play board and card games

Math Talk



- ★ I agree/disagree with you because...
- ★ What strategy did you use?
- ★ Can you explain your steps to me?
- ★ My first step was...
- ★ Is there another way to solve this problem?
- ★ I still have a question about...



Turn Any Activity into a Math Experience



WHAT
do you notice
about...?



WHY
did that happen?



WHAT
do you think will
happen if...?



HOW
can we...?



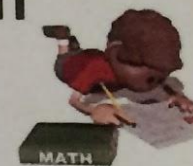
WHAT
changed when
we did that?

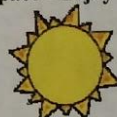




WHICH
way was
better/faster/shorter?

Summer Math Road Trip – Entering Kindergarten

Mathematics is everywhere and your home is full of opportunities to explore math with your child and build your child's understanding of mathematical ideas. The activities below can be done in any order and are designed for you and your child to do together. When the activity is complete, a family member can initial on the lines in the box.



Each day of summer vacation, have your child put an X on that day on a calendar. Talk about what day it is <i>today</i> , what day it was <i>yesterday</i> , and what day it will be <i>tomorrow</i> . _____	Keep a summer growth chart. Measure and record your child's height every two weeks. Ask questions-"How tall were you at the beginning of the summer?" "How tall are you at the end of the summer?" _____	Help your child set the table for dinner. Ask: "How many plates do you need to put out?" "How many glasses?" "How many forks?" _____	Play with bubbles! Are the bubbles all the same size? Encourage your child to use words like <i>smaller</i> , <i>bigger</i> , <i>longer</i> , <i>larger</i> , <i>largest</i> , etc. _____	While you are on the go, have your child look for numbers: streets and buildings, phone numbers on trucks, route numbers and distances, license plates, etc. _____
Sort the laundry (by color, by size, by owner, or by item type). Talk with your child about the sorts. Ask questions such as: "Who has the most socks?" "Who has the least amount of T-shirts?" _____	Place number magnets on your refrigerator or on a safe, smooth surface. When you are working in the kitchen, ask your child to name the numbers she/he plays with and see if she/ he can match them to a correct number of objects. _____	Give your child plenty of containers in different sizes and shapes when you play in the sand or the water. As you scoop, dump, pour and fill up the cups together, ask your child to predict how many smaller cups will fill a larger. Use words such as smaller than, larger than. _____	Play an I-Spy game with your child. Use positional words such as – above, behind, in, on, in front of, below, between, top and bottom as clues to describe the item's position. _____	Play a game such as Memory, Chutes and Ladders or Candyland. Talk together about the strategies you are using to play the games and the numbers that are used in the games. _____
Help your child collect 5 shells at the beach or stones from the backyard. Then put them in order from smallest to largest. Use words such as small, smaller, smallest, larger... _____	Give your child sidewalk chalk or paintbrushes with water. Let him or her draw or paint shapes or numbers on the sidewalk. (If your child is unsure-paint a number, then have your child trace over it.) Do the same activity in the sand at the beach. _____	Use household objects to create simple repeating patterns with your child. Have your child complete a pattern. She or he could make a new pattern for you to complete using M&Ms. _____	Free Space –Enjoy the Day 	Go on a Shape Hunt. Ask your child to find shapes in your home. Look for circles, squares, triangles, and rectangles. Look for the shapes at the grocery store or in a restaurant. _____
Help your child count the number of people that live in your house. How many eyes do they have altogether? How many fingers? _____	Take A Break! 	Follow a recipe with your child. Discuss the measuring terms: cup, tablespoon, etc. Let your child help measure the ingredients. _____	Let your child help prepare cold lemonade or iced tea for your family. Put the same number of ice cubes in each glass. How many ice cubes were used all together? _____	Look in your food storage. Find 5 boxes of different sizes in your kitchen (cereal, pasta). Line them up from tallest to shortest. Now, line them up from thickest to thinnest. _____
Take a cup of a colorful cereal such as Fruit Loops or Trix. Have your child sort the cereal and together you can count how many of each color there are. _____	Play a game of "War" with dice. Each player rolls one die, the player with the highest number of dots wins. Next, play the lowest number wins. Can you tell who wins without counting the number of dots? How? _____	As your child is building a structure with blocks or Legos, ask about the shapes they have made. Now separate the structure in 3 parts. How many blocks/Legos are in each part? Help to count them. _____	Play dominoes together. Make a pattern by matching the number of dots together, counting as you go. _____	You Did It! 



Family Fun! Summer Math Activities Grades 1-6



Math is all around us! The list below shows some fun ways you and your child can practice math over the summer!

- Look for shapes on billboards and signs.
- Use a bag of Skittles, M&Ms or Reese's candy and sort by colors. Graph the results of the colors. Which color has the most? The least? Are there any colors that have the same amount?
- Count forward to 100 – by ones, fives, tens while skipping, jumping, jumping rope, snapping, etc.
- Make your own flashcards to practice adding and subtracting. Draw pictures to model the addition/subtraction fact.
- Help with the family budget or balancing the checkbook
- Cook from a recipe paying attention to measurements; rewrite a recipe to serve twice as many people, half as many, two thirds as many, etc...
- Build anything – focusing on the measurements and the shapes being used
- Research how math is used in different careers
- Research a famous mathematician
- Plan a road trip – find the route to get there, distances, amount of gas needed, cost of gas, average speed, time it will take to get there, etc...
- Conduct surveys (favorite ice cream flavor, best movie, beach or pool, etc) and create graphs for your results
- Measure your height in different units at the beginning and end of summer and graph the results
- Multiplication/Division flashcard practice
- Find the measurements of objects using different units of measure
- Read a book that involves a math concept
- Write a story or cartoon that would help explain a math topic
- Track the temperature by graph through the summer
- Record how long it takes for different people to do something – find mean, median, mode, range and graph the data in different ways
- Play a board game – most games involve logic and/or math skills – examples: Monopoly, Clue, Checkers, Chess, Blokus, Cribbage, Mastermind, various card games, Dominoes, Yahtzee, Battleship, Life, the list goes on and on...
- Sudoku puzzles/Logic puzzles/Brainteasers
- Play a video game that involves logic/math: Brain Age, Big Brain Academy, Brain Challenge, Tetris, Personal Trainer: Math, Math Play, Learn Math, Math Blaster, just to name a few
- View some math videos online and then create your own
- Design a game that would include math – be sure to list in your log what math topics were covered in your game and a brief description of how to play
- Create a “back to school supply list” with costs per item and total costs.

DICE AND CARD GAMES

*ideas to practice math facts.



*ideas to practice addition, subtraction, multiplication, place value, etc...

*Acing Math- One deck at a time

*Games to play with a pair of dice

*More dice games

More ideas for summertime!

Online Math Activities:

*www.mathnook.com

*www.zearn.com

*www.khanacademy.com

Summer Games:

*<https://imaginationsoup.net/summer-math-activities-for-kids/>

*<http://www.imaginelearning.com/blog/2016/04/summer-fun-math-games-kids>

*www.preschooexpress.com/number_station/summer-math-game-s-jun-jul08.shtml

Summer Programs:

*[Summer Brain Quest activity books](#)

*[Scholastic Summer Express](#)

Parent support: [Professor Jo Boaler's](#)

[Advice for Parents](#)

Math Websites for Computer Activities

<http://www.abcya.com>

<http://www.sheppardsoftware.com>

<http://www.coolmath4kids.com/>

<http://www.mathplayground.com/games.html> (multiplication)

<http://www.factmonster.com/> (fact practice)

<http://www.math-play.com/>

<http://www.multiplication.com>

<http://virtualmanipulatives.com>

<http://pbskids.org/games/math/>

<http://education.com>

<http://mathgames4children.com>

www.illuminations.nctm.org/Games-Puzzles.aspx

<http://www.funbrain.com/>

<http://bedtimemath.org>

**Thank you so much for your
time. If you have any questions
please feel free to email us!**

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