



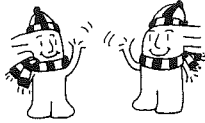
# Math+Science Connection

Building Excitement and Success for Young Children

January 2019

Lakeland Joint School District #272

From the Title I Staff



## TOOLS & TIDBITS

### Use your head

Encourage your youngster to do simple math problems in his head. For instance, say, "Aunt Christine and Uncle Larry are coming over. How many people will be here?" He might think, "There are 4 of us. My aunt and uncle are 2 more.  $2 + 4 = 6$ ."

Mental calculations will prepare him for math he'll do at school and home.

### Powers of observation

Sharpen your child's observation skills with this idea. Secretly select a magazine photo that shows something from nature, such as an animal, an apple, or an ocean wave. Cut out a small piece of the picture, and see if your youngster can guess what it is. If she sees black and white stripes, she might say it's a zebra or a skunk.



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### Book picks

▣ Your youngster can count change along with Pauline and John-John as they sell ice-cold drinks in *Lemonade in Winter: A Book About Two Kids Counting Money* (Emily Jenkins).

▣ *Over and Under the Snow* (Kate Messner) reveals nature's wonders in keeping animals safe and warm all winter in a hidden world beneath the snow.

## Just for fun

**Q:** Why are fish so smart?

**A:** Because they live in schools.



## 365 days of math

It has up to 31 numbers, and we use it every day of the year. What is it? A calendar! Hang one where your child can see it, and try these activities.

### Calendar jar

Place a clear jar and a bag of small items (cotton balls, jelly beans) near the calendar. Each day, your youngster should fill the jar with the number of objects matching the date. For example, she would add 6 cotton balls on January 6. The next day, she would dump those out and count in 7 cotton balls for January 7. She'll build number sense as she counts and sees what different amounts look like each day.



### Special countdown

Let your youngster place stickers or draw pictures on special dates like birthdays, holidays, and school events. Then, she can keep track of how many days are left until each date. Perhaps today is the 8th, and her birthday is on the 18th. She could count on from 8 to 18 or use subtraction ( $18 - 8 = 10$ ) to discover that her birthday is in 10 days. 🦋

### Number of the day

Have your child look for creative ways to use each day's date. On January 20, she could set a timer and read for 20 minutes. On the 24th, you might bake 2 dozen (24) cookies together. And on the 30th, suggest that she build a Lego castle with 30 bricks.

## On the lookout for winter

"I found an icicle!" "There's frost on that leaf."

Go on a walk with your youngster to search for signs of winter. Before you head out, let him predict what he will see. He might list snow, ice, bare branches, acorns, nests, animal tracks, and even people wearing winter coats, hats, and gloves.

He can bring his list on your walk and mark off each item he notices. Along the way, he could add other winter sightings not on his list—perhaps berries, shovels, or smoke from a chimney.

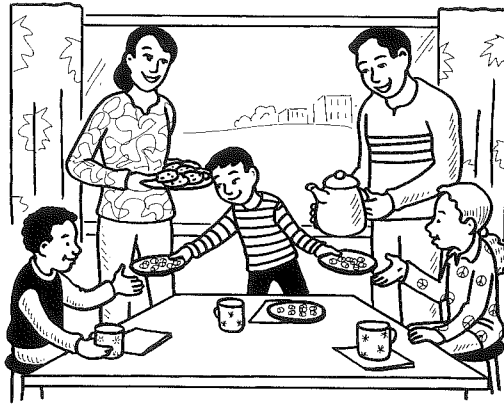
*Idea:* As your child warms up indoors after your outing, encourage him to draw or paint a wintry scene that includes all the signs he saw. 🦋



# Is it equal?

The concept of *equal* is important to kids from an early age—especially when it comes to sharing treats! Here are ideas for helping your youngster explore equal groups and equal parts.

**Hot cocoa party.** Let your child invite friends over for hot cocoa and snacks. He can divide up a bowl of mini-marshmallows to make equal groups. If he has 25 marshmallows and 2 guests (plus himself), how many marshmallows will he give each



person? Suggest that he deal them out to everyone, then put away any leftovers. He'll see that each friend gets 8 mini-marshmallows and 1 is left over.

**Shape puzzles.** Help your youngster cut circles and squares out of construction paper. Now have him cut some shapes into 2 equal parts (halves) and others into 4 equal parts (fourths or quarters). Mix up all the parts, and use teamwork to put the shapes back together. Be sure to use fraction words! You might say, "I have *one-half* of this red circle. Do you

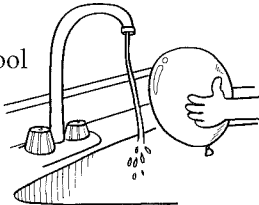
have the other *half*?" *Tip:* Once he's comfortable with halves and fourths, he could cut shapes into thirds, too.

## SCIENCE LAB

### Watch water bend

Energize your youngster's excitement for science with this experiment that shows how *static electricity* can bend water.

**You'll need:** wool hat (or other wool clothing), inflated balloon, sink



**Here's how:** Have your child put on the hat and rub the balloon over it quickly while she counts to 20. Run a slow, steady stream of water from the sink, and let her immediately hold the balloon as close to the water as she can without touching.

**What happens?** The water curves and bends toward the balloon!

**Why?** Rubbing the balloon over the wool hat creates static electricity. Negative particles (electrons) from the hat move to the balloon, "charging" it. Water has both electrons *and* positive particles (protons). The negatively charged balloon attracts the protons in the water, pulling them toward the balloon.

## Q & A

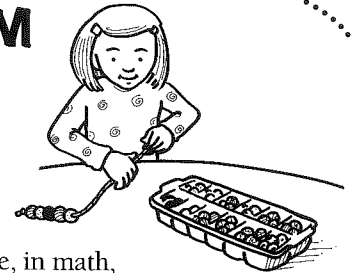
### Fine motor skills and STEM

**Q:** My daughter loves STEM lab at school! Her teacher mentioned that the kids are working on fine motor skills there along with STEM projects. How could my child practice those skills at home?

**A:** Your daughter's teacher knows that hand strength and coordination are important in STEM. For example, in math, your youngster needs to count and sort small objects and to measure accurately. She also uses fine motor skills for science and engineering activities, such as planting seeds, pouring liquids, and gluing together craft sticks to build bridges. Finally, technology tasks like typing and using a mouse require good hand control.

To practice, let your daughter see how high she can stack pennies, then count the coins as she drops them one by one into a piggy bank. Or have her sort beads by color, using tweezers to place them into separate sections of an ice cube tray, and string them onto yarn in a pattern.

Also, ask her to help with household STEM-related activities like gardening, scooping and measuring ingredients for recipes, and typing emails to her grandparents. She'll build fine motor skills while discovering that STEM is important in real life.



## MATH CORNER

### What number is missing?

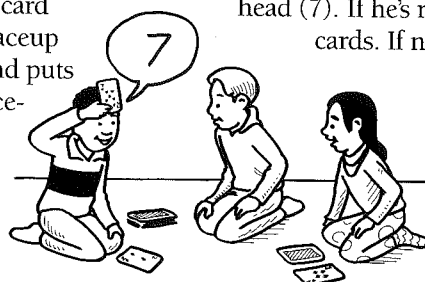
Let your child practice finding *addends* (a number added to another number) with this game.

**Materials:** deck of cards (face cards removed, ace = 1)

One person deals 1 card facedown and 1 card faceup to the other players, and puts the rest of the cards facedown in a pile. Then, each player puts his facedown card against his forehead (without looking),

number side out. The dealer tells the player the sum of his two cards. So if he sees a 7 on a player's forehead and a 2 on the table in front of him, he would call out "9" (because  $7 + 2 = 9$ ). Now the player has to say the number on his forehead (7). If he's right, he keeps both cards. If not, he returns them to the bottom of the pile.

Switch dealers every round, and play until all the cards are gone. The player with the most cards wins.



**OUR PURPOSE**

To provide busy parents with practical ways to promote their children's math and science skills.

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# Reading Connection

Tips for Reading Success

Beginning Edition

January 2019

Lakeland Joint School District #272

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## Book Picks

Read-aloud favorites

### ■ *Creepy Pair of Underwear!*

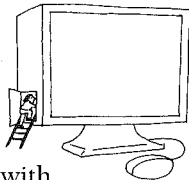
(Aaron Reynolds)

Jasper chooses a pair of neon green underwear when he goes shopping with his mom. That night, after lights-out, he decides that glow-in-the-dark underwear is scary instead of cool. But when he gets rid of it, he misses his "night-light." What will Jasper do next? (Also available in Spanish.)

### ■ *Hello Ruby: Journey Inside the Computer*

(Linda Liukas)

This book from the Hello Ruby series uses a fictional story to explain how computers work. Follow along with Ruby as she shrinks down and crawls inside her father's broken computer. Includes fun activities that let readers put their new knowledge to work.



### ■ *Mama's Saris*

(Pooja Makhijani)

On her seventh birthday, an Indian American girl decides she's old enough to wear a sari. She feels proud and special when her mother lets her wear the traditional garment to her party. This sweet story celebrates family traditions.



### ■ *Hoop Genius: How a Desperate Teacher and a Rowdy Gym Class Invented Basketball*

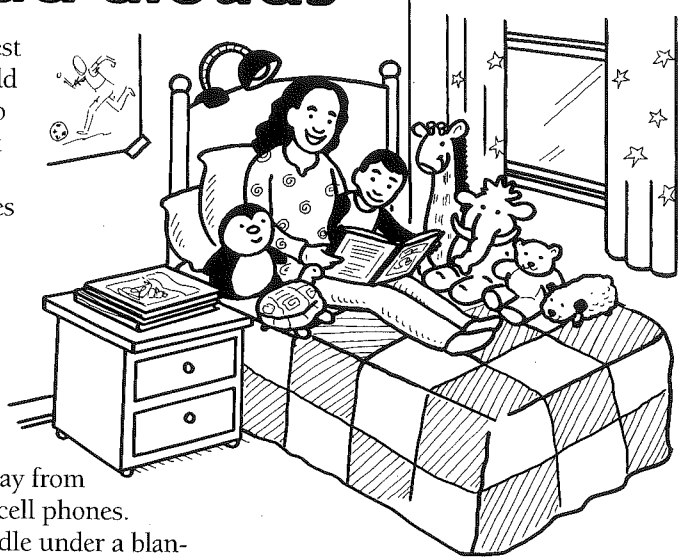
(John Coy)

In 1891, James Naismith was teaching a gym class full of unruly boys. This nonfiction book tells how Naismith got control of the class by inventing a game with two peach baskets and a soccer ball. Today, we call that sport basketball!



## Cozy read-alouds

What's one of the best ways to make your child a better reader? Read to him! Studies show that reading aloud builds youngsters' vocabularies and their reading and writing skills. Snuggle up with your child and a good book, and try these ideas.



### Get comfortable

Let your youngster choose a quiet spot, away from distractions like TV or cell phones. Maybe he wants to cuddle under a blanket on the sofa while you read, or perhaps he'd like to pile pillows and stuffed animals on his bed for story time. *Tip:* Hold the book so he can see the words and pictures while you read.

### Slow down

Find a time to read when you won't be rushed. Reading at a leisurely pace allows your youngster to absorb the story. Tell him that he's welcome to stop you if he doesn't know what a word means or if he wants more time to look at an illustration.

Asking questions and examining the pictures help him understand and enjoy the book.

### Be playful

Use different voices for the characters, or read scary or exciting parts dramatically. For example, use a high, chirpy voice for a parrot or a low, booming voice for a giant. You might even assign him the part of a character. Stop and let him read the dialogue so he practices reading fluently. ♥

## Build "writing muscles" in the kitchen

Lots of kitchen tasks work the same muscles your child uses for writing. Offer her these jobs.

● **Boost strength.** Let your youngster mash potatoes or stir pancake batter. Or she could decorate cupcakes or cookies. Put frosting in a zipper bag, snip off a corner, and encourage her to squeeze it onto the goodies like a pastry chef!

● **Improve coordination.** Show your child how to roll a ground beef or turkey mixture between her palms to make meatballs. Let her use her fingers to tear lettuce for a salad. Have her hold her wrist steady as she uses a spatula to transfer cookies to a cooling rack. ♥



# I can read!

New readers are proud of their skills as they go from “reading” pictures to reading words—and then entire stories. Use these tips to support your youngster at each stage.

**Pictures.** Suggest that your child use the illustrations to tell herself the story. You could point out words she says that appear on the page. For instance,



if she says, “The kids are riding the school bus,” show her the words *school* and *bus*. She’ll begin to connect written words with spoken ones.

**Words.** If your youngster reads a word incorrectly, help her figure it out. You might say, “Does ‘Everyone got a parking hat’ make sense?” Then, have her reread the sentence—she’ll probably realize that the word is *party*. If not, she could try sounding out the word.

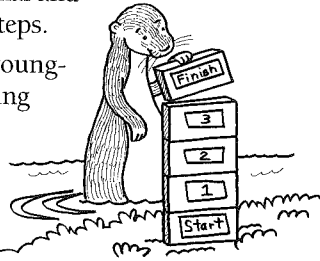
**Stories.** This is a good stage for getting your child hooked on a series of books. Ask a librarian to recommend one that matches your youngster’s interests. Your child will build confidence as she reads about familiar characters and settings in each new installment.♥

## Fun with Words

### Why my favorite animal is awesome

With this activity, your child will construct a block tower as he “constructs” an opinion piece. Encourage him to pick a favorite animal and follow these steps.

1. Help your youngster use masking tape and a marker to label five blocks: “Start,” “1,” “2,” “3,” and “Finish.”



2. Let him place the “Start” block in front of himself and then, on a sheet of paper, write (or dictate to you) an opening sentence. (“My favorite animal is an otter.”)
3. Have your child stack the numbered blocks on top of “Start.” As he adds each one, he could write a reason for his opinion. *Examples:* “Otters are cute.” “They like to play.” “They are good swimmers.”
4. Now it’s time for him to put the “Finish” block on top and write his conclusion. (“Now you see why I love otters.”)
5. Finally, invite him to read his opinion piece to you.♥

## Q&A

### Becoming a good speller

**Q** My son misspells a lot of words. For example, he’ll write *frnd* for *friend*. Should I be concerned?

**A** Your son is using the sounds he hears to figure out how words are spelled—an important strategy at this age.

The fact that he knows *friend* starts with the consonant combination *fr* shows that he’s probably on the right track. As he learns vowel patterns like *ie* and *ei*, you’ll notice that he incorporates those into his spelling, too.

Encourage your son to spell common words (*the*, *and*, *have*) correctly. If his teacher sends home weekly spelling lists, he should learn to spell those words the right way, too. You might have him practice by writing the words on a sidewalk, for instance.

Over time, he’ll combine what he knows about letter sounds with spelling rules, and the better his spelling will become.♥



## Parent to Parent

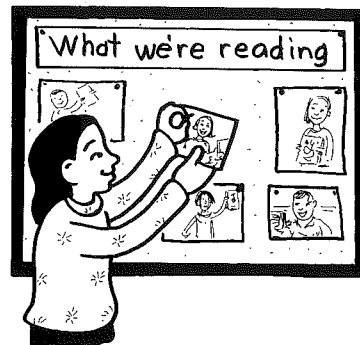
### Our family reading board

Recently, my daughter Ella proudly pointed out a photo

She hangs the photo on the board, and I make sure to ask her what the book is about or what made her decide to read it.

of herself on a bulletin board in the school hallway. She was holding her favorite *Curious George* book, and the board was titled “What we’re reading.”

We decided to make a board like that at home. Now when Ella reads a new book, I take a picture of her with it.



She also asks what I’m reading and offers to take my picture. We even have relatives send us “reading selfies.”

Ella enjoys seeing that everyone reads. And the board is getting us to talk about books regularly!♥

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