

# Kite and Leaf...



The good news  
email from TCS!

## The Votes are In! Our Class Names

Each year at TCS, classrooms vote on a name for themselves based on a school-wide theme. It's not only a fun tradition, but has many benefits for creating a less hierarchical feeling in the school, giving kids the sense of owning both their classroom and their learning, and building a sense of belonging and community within each classroom group.

This year's class name theme is "*Pollinators*." We think our students have germinated some great names, as you can see below:

**Kindergarten** (*Ms. Nadine, Ms. Kendra*):  
Dragonflies

**1st/2nd Grade** (*Ms. Coria, Mr. Julio, Ms. Marquez*):  
Kitty Bees

**1st/2nd Grade** (*Ms. Dana, Mr. Julio*):  
Las Mariposas Hermosas (The Beautiful Butterflies)

**3rd Grade** (*Ms. Angela, Ms. Danielle, Ms. Toni*):  
Summing Birds

**4th/5th Grade** (*Mrs. Nitzsche, Ms. Danielle*):  
Lounge of Lizards

**4th/5th Grade** (*Ms. Lisa, Ms. Danielle*):  
Sugar Gliders

**6th/7th Grade** (*Ms. Yamamoto*):  
Butterfree

**6th/7th Grade** (*Mr. K*):  
Obnoxiously Loud Humming Birds

**8th Grade** (*Ms. Mitchell*):  
Barry B. Bensons



## Making Math Fun From the Start

How do you get kids to look forward to math? You make it fun and meaningful right from the start. TCS teachers create a math environment that stresses play, relevancy, and building concepts that foster a deep understanding of problem-solving and number sense. This helps concurrent traditional math skill-building at each level. Here are examples from Pond, Lake, and Ocean classrooms:

### POND: Morning Math for the *Kitty Bees*



"We begin our day with Morning Work. During this time, children work on skills and exploration of numbers. Children have a variety of math tubs with math manipulatives to work with. They can choose to work independently or with a partner to build and play. Some favorite activities are manipulatives for hands-on exploration of mathematical concepts," says 1<sup>st</sup>/2<sup>nd</sup> grade teacher Ms. Lucy Coria.

The three top games for the *Kitty Bees* include "linking stars," which are building blocks that link together. These types of building materials support spatial understanding, engineering, problem-solving, and give children a better understanding of shapes. The second is the card game "Blink," where children need to match cards by color, shape, or number. This game is great to strengthen number sense. Finally, playing with pattern blocks explores the characteristics of shapes as children create their own objects.

In early grades, math is both play-based and full of hands-on sensory stimulation.

### LAKE Classrooms Kick-Off Math with Data Collection

Mrs. Lori Nitzsche of the *Lounge of Lizards* class report that: "Data collection - both in the woods and graphing daily temperatures. Last week, students began a math lab in which they worked with one or two partners. They took a sampling -- in this case a variety of dried beans-- and recorded the data, graphed it, and analyzed it in order to make predictions about other samplings."



"This will lead into learning about probability, as well as designing our own lab on a data collection topic the students choose. Students were highly engaged, working together with the materials and collaborating to record the data. This was so good to see!"

Meanwhile, over in the *Sugar Gliders* class, Ms. Lisa Friedman says: "We discussed the kinds of data one might collect if they were hosting a party, running a school or restaurant, or governing a city. We discussed why environmental groups might want to collect data regarding the number and kinds of birds along the Des Plaines River.

"We pretended that a car dealership asked us to collect data to determine the most popular car colors in Oak Park and we came up with several amazing ideas - (a) go to the biggest parking lots (OPPL, Costco, the parking garages) and count, (b) stand for an hour on Austin Avenue and Oak Park Avenue, during rush hours and count, (c) take a sample of Oak Park by surveying TCS families, (d) drive through Oak Park during peak drive times and count, (e) enlist the help of some drones, etc."

Data collection will help Lake students prepare for both group project work and individual research, in addition to building critical thinking skills when evaluating news and data from other sources.

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### Ocean Explores Math Through Vocabulary, Art, and Sociological Applications

The *Obnoxiously Loud Hummingbirds* teacher, Mr. Louis Kertgen, reports: "Most of our math instruction starts with Toothpick



Time. There are a few main objectives of the toothpick math activity. For starters, it's a way to get students' attention and begin thinking with more of a mathematical mindset. We also use it as a way to help students identify patterns they may see, apply concepts that we have discussed in class (such as parallel lines, right

angles, perpendicular lines), identify shapes and shapes within, and finally as a way to think critically. We have the students arrange toothpicks into "tetris" like shapes or other images. From here we begin examining what we see. This conversation starts with us asking the students three questions regarding the activity. What do you notice? What do you know? What do you wonder? From there, we have a class discussion and share our answers.

"Next, we give the students a challenge of some sort, like 'Remove three toothpicks and create two squares.' After several minutes, we bring the class back together and discuss how we did this and what our thought process was. This allows us to gain more of an understanding of how students are thinking as well as give them a chance to learn from each other. To wrap it all up, we talk about what we did and why, and move on to our main math lesson. "

**\*[Click here to play with Toothpick Geometry at home \(Grades K-12\)](#)**

Ms. Yamamoto of the *Butterfree* class adds: "In our classroom, Toothpick Geometry is used as a warmup activity, and afterwards, we have been doing activities with patty paper (small squares of thin paper) to identify and describe relationships between lines, angles, and shapes. We make conjectures, and look for ways to prove them. As a fun extension assignment, we made 'Wanted' posters for shapes and posted them around the school."

"In addition, almost daily, we examine and discuss graphs and growing patterns to stretch our mathematical thinking. For example, our first morning work was a visual of vaccine resistance by state. We asked ourselves, 'What do we notice? What do we wonder? How does this connect with my life?'"

Keeping math fun, and demonstrating how it can help students understand

and talk about their world is what engages middle-level students the most!

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We hope you'll keep the positive, fun attitude about math going at home for your kids as you understand more about how and what they are learning. Meanwhile, you can feel confident that at TCS they are learning math deeply at each development level so that math skills become more than rote memory, and instead, an important part of how they learn, think and solve problems.

## "The Teacher *IS* the Curriculum"

Near the beginning of each school year, we hold "Curriculum Night" for all current TCS families. The event allows parents/guardians to meet as a group with their student's teachers and hear classroom plans in terms of curriculum and what that might look like from a teacher, student, and parent perspective.

Each year, our Director of Curriculum and Instruction, Ms. Christina Martin, also offers a keynote address highlighting important aspects, advantages, changes, or goals in our curriculum.

This year, Ms. Martin highlighted the teacher's role, citing a quote from our founder, Daniel Ryan, EdD, that "the teacher is the curriculum."

Ms. Martin spotlights how in the case of teachers at TCS, learning centers around connection and inspiration. Here's a video of the talk below:



