

# JBS NEWS



## FROM THE DESK OF JULIA BROWN

Most adults recall memorizing the names of rivers or the Pythagorean theorem in school and wondering, “When am I ever going to use this information?” In fact, children today frequently add that what they don't know, can be obtained by asking Google. Stuningly a speaker from Google itself promotes this by saying last year at an industry conference that he “cannot answer” why his children should learn the quadratic equation. He wonders why they cannot “ask Google.” If Google cannot answer this, I can.

Google is good at finding information, but the brain beats it in two essential ways. Champions of Google underestimate how much the meaning of words and sentences changes with context. Consider vocabulary. Every teacher knows that a sixth grader, armed with a thesaurus, will often submit a paper studded with words used in not-quite-correct ways, like the student who looked up “meticulous,” saw it meant “very careful,” and wrote “I was meticulous when I fell off the cliff.”

With the right knowledge in memory, your brain deftly puts words in context. Consider “Trisha spilled her coffee.” When followed by the sentence “Dan jumped up to get a rag,” the brain instantly highlights one aspect of the meaning of “spill” — spills make a mess. Had the second sentence been “Dan jumped up to get her more,” you would have thought instead of the fact that “spill” means Trisha had less of something. Still another aspect of meaning would come to mind had you read, “Dan jumped up, howling in pain.” The meaning of “spill” depends on context, but dictionaries, including internet dictionaries, necessarily offer context-free meanings. That’s why children fall off cliffs meticulously.

Perhaps internet searches will become more sensitive to context, but until our brains communicate directly with silicon chips, there’s another problem — speed. Quick access is supposed to be a great advantage of using the internet. Students have always been able to look up the quadratic equation rather than memorize it, but opening a new browser tab takes moments, not the

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## CALENDAR

### NOVEMBER

11/14

Columbia JR Parent Event

11/15

Laurel JR Parent Event

11/16

Silver Spring JR Parent Event

11/17

Olney JR Parent Event

**11/23 & 11/24**

**JBS CLOSED - Thanksgiving Break**

11/27

Conferences Begin

### DECEMBER

12/22

Winter Celebration

**12/25 & 12/26**

**JBS CLOSED**

12/27-12/29

WINTER BREAK;

Daycare Open

### JANUARY

**1/1/18 JBS CLOSED**

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minutes required to locate the right page in the right book. Yet “moments” is still much slower than the brain operates.

Speed matters when the quadratic equation is part of a larger problem. Imagine solving  $397,394 \times 9$  if you hadn't memorized the multiplication table. Sure, you could look up  $4 \times 9$ , but you could easily lose the thread of the problem as you did so. That's why the National Mathematics Advisory Panel listed “quick and effortless recall of facts” as one essential of math education.

Speed matters for reading, too. Researcher report that readers need to know at least 95 percent of the words in a text for comfortable absorption. Pausing to find a word definition is disruptive. Online, the mere presence of hyperlinks compromises reading comprehension because the decision of whether or not to click disrupts the flow of understanding.

Deeper knowledge of words also helps. Your knowledge of what a word means, how it's spelled and how it sounds are actually separate in the brain. That's why you may recall one but not the others, as when you know what you want to say (“someone who owes money”) but can't find the word (“debtor”). Good readers have reliable, speedy connections among the brain representations of spelling, sound and meaning. Speed matters because it allows other important work — for example, puzzling out the meaning of phrases — to proceed.

Using knowledge in the head is also self-sustaining, whereas using knowledge from the internet is not. Every time you retrieve information from memory, it becomes a bit easier to find it the next time. That's why students studying for a test actually remember more if they quiz themselves than if they study as they typically do, by rereading their textbook or notes. That parades the right ideas before the mind, but doesn't make them stick. In the same way, you won't learn your way around a city if you always use your GPS, but you will if you work to remember the route you took last time.

The brain beats the internet when it comes to

context and speed, but the internet clobbers the brain when it comes to volume. You can find any fact on the internet, even alternative ones. Your brain, in contrast, is limited, so how should we choose what to learn?

Students should learn the information for which the internet is a poor substitute. Getting information from the internet takes time, so they should memorize facts that are needed fast and frequently. Elementary math facts and the sounds of letters are obvious choices, but any information that is needed with high frequency is a candidate — in algebra, that's the quadratic equation.

The internet is poor at putting information in context. Children who look up the quadratic equation may end up like the child who looked up “meticulous”; they have a definition, but they don't have the background knowledge to use it correctly. Students should learn not only the formula but also why it works and how it connects to other math content. That's how contextual knowledge develops in the brain, and that's why vocabulary instruction seldom consists of simple memorization of definitions — students are asked to use the words in a variety of sentences. The same should be true of more advanced concepts and for the same reason.

It's a grave mistake to think Google can replace your memory. It can, however, complement it, if we keep in mind what each does best.



## JBS ALUMNI NEWS

Over the course of the past 50 years, The Julia Brown Schools has had the pleasure of caring for and educating many children. The lasting impression of their early education is shown by their interest in enrolling their own children. Our Columbia location is thrilled to be caring for the children of Mr. David Zwanetz, a former JBS Laurel student. His son Xander is enrolled in our Primary Program and his daughter Zoe is in our Toddler Class. Mr. Zwanetz attended our Laurel location from 1982 through 1985. His Directress was Mrs. Leonhart, who now serves as the Director of all 4 locations. Mr. Zwanetz is now a Partner at Shapiro & Zwanetz, a law firm in Columbia, MD.

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*“Free the child’s potential, and you will transform him into the world.”  
- Maria Montessori*

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## REMINDERS

- FALL JUNIOR CLASS EVENT - JR parents don't miss this opportunity to visit your child's class to see what they have prepared for you. Invitations will be sent home in Friday Folders with more details. Dates on school calendar and first page of this newsletter.
- Winter is almost here! Please make sure that all of your child's personal belongings are labeled. This includes any outerwear you send to school with your child. The staff will make every effort to assure that each child has their own belongings but we ask that you assist with this process by properly labeling all items.
- Birthday Celebrations. Parents are welcome to provide a special snack for their child's birthday; please contact the Administrator prior to the date to discuss your plans. Candy, juice, soda and goody bags are not permitted. All items must be nut free and labeled with the name of the product and the ingredients.
- Lost and Found. There is a lost and found at each JBS location.

## STAFF SPOTLIGHT



Ms. Webster is a Junior Directress at our Silver Spring location.

She has been with JBS for just under 4 years. Ms. Webster worked in the Primary Montessori Class before moving to the Junior Room. She has a degree in Elementary Education from Bowie State and her Lower Elementary Montessori Certification.

The students in her class are fortunate as she loves to think outside the box. She develops very in depth and exciting cultural and science experiments.

Ms. Webster has a lovely, kind demeanor that is both welcoming and gentle. The Silver Spring students enjoy her lessons and approach in the classroom.

## FROM OUR JUNIOR CLASS



*The Stamp Game is used for four different math operations: addition, subtraction, multiplication and division. The student above is using the Stamp Game for static addition.*

*First, you set up the board and stamps. Set up the first addend beginning in the units column. Then continue setting up the numbers through our thousands and add them both together starting with the units. This is repeated with each column. After adding all of the columns together, complete your work by writing down your answers.*

- *written by the Silver Spring Junior Class*

A child in a Montessori class never sits down to memorize addition and subtraction facts; he never simply memorizes multiplication tables. Rather he learns these facts by actually performing the operations with concrete materials such as the Stamp Game. Parallel activities for addition, subtraction and multiplication are always ready for the child who is eager to use different material.

### SPELLING TEST

#### CALENDAR

11/3 - Lesson 5
11/10 - Lesson 6
11/17 - Lesson 7
12/1 - Lesson 8
12/8 - Lesson 9
12/15 - Lesson 10
1/5 - Lesson 11
1/12 - Lesson 12
1/19 - Lesson 13
1/26 - Lesson 14
2/2 - Lesson 15
2/9 - Lesson 16
2/16 - Lesson 17
2/23 - Lesson 18
3/2 - Lesson 19
3/9 - Lesson 20
3/16 - Lesson 21
3/23 - Lesson 22
4/13 - Lesson 23
4/20 - Lesson 24
4/27 - Lesson 25
5/4 - Lesson 26
5/11 - Lesson 27
5/18 - Lesson 28
5/25 - Lesson 29
6/1 - Lesson 30
6/8 - Lesson 31*
6/15 - Lesson 32*

\*Spelling lists will be provided to Grades 2 & 3, when book lessons end.