

# Gifted Update

## Girls Involved in STEM Activities

(Mr. Robert Bell)

Recently, some girls from grades 6 and 7 had the opportunity to visit with women who are engaged with STEM.

The sixth and seventh grade girls traveled to Case Western Reserve University where they got to spend some time with graduate and undergraduate women who were part of the WISER group—Women in Science and Engineering Roundtable. There were over 20 volunteers from WISER who were able to speak with SEL students in small groups about preparing for a career in STEM. The girls also toured the campus and got to participate in some engineering type challenges with the WISER volunteers. Throughout the day, all of the women who spoke with these girls encouraged the girls to work hard, follow their dreams and not to give up if their studies get difficult. It is hoped that this enrichment opportunity will enhance the girls' awareness of the importance of higher level math and science course to help to open "doors to opportunities."

## Lego Robotics in action in Grade 6,7,8

Once again the gifted education department has supported Lego Robotics.. This project-based, hands-on program introduces students to coding, programming, and engineering in an environment where students work collaboratively to solve a yearly conceived robotics challenge. There are so many best practice strategies for gifted incorporated into this program. It is STEM in motion and the program is designed to inspire the next generation of innovators, technology leaders, and change makers.

The SEL support for this program begins in grade 6 with Lego building kits. At Memorial the students are enrolled in a competition, gather all the information, and implement the plan. Stay tuned for the results in the winter newsletter.

Follow this link for this years challenge: [2018 LEGO CHALLENGE](#)

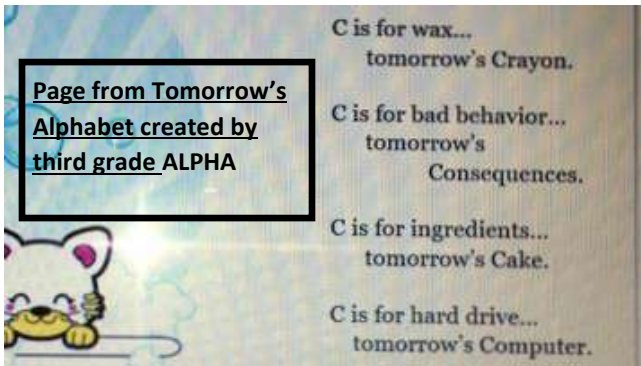




## ALPHA Reading—Grade 3

Mrs. Marcia Armbruster

Third grade ALPHA readers at Adrian, Rowland, and Sunview began the year reading and creating their own online version of the book Tomorrow's Alphabet by George Shannon. The book is not an ordinary alphabet book; it uses the students' analytical and creative thinking skills to project how time changes things. These changed items are paired up with the alphabet and allow the reader to predict and make new connections. Our class book of Tomorrow's Alphabet can be viewed online using this url: <https://storybird.com/books/tomorrows-alphabet/?token=wppk7qftu7>

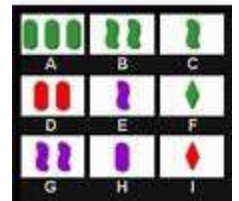


Third grade ALPHA reading classes at the three elementary schools are all a part of one virtual classroom on the secure and safe educational blogging site Kidblog. Together, via technology, the students are able to read the same selections, write answers and opinions to higher level questions, and create new pieces of writing to share with each other. The students are able to virtually comment on each other's work and use their evaluative skills to do so. If you would like to view our Kidblog classroom, please log on to [www.kidblog.org/class/alpha-reading-2018-2019](http://www.kidblog.org/class/alpha-reading-2018-2019) and use your child's password. (All students know their passwords). Currently we are working on the Aesop fable "The Ant and the Dove" and are starting a book about Sonia Sotomayor, the first Latin American Supreme Court Justice.

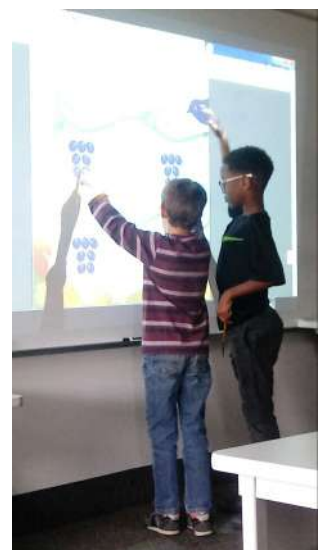


## ALPHA Math Grade 3 Mrs. Marcia Armbruster

The ALPHA math third graders began the year learning a challenging visual mathematics game called SET Game, involving forming sets of cards according to four different overlapping rules of attributes. The students began working on analytical math puzzles called Cross Number puzzles, pairing deductive reasoning skills with math operations. They have been busy tackling visual math problems from a book called The Grapes of Math by Greg Tang. These problems involve analyzing and evaluating clues in order to determine the most efficient math strategies to use when solving the problems. Process over product was the key; often times these challenging problems could be solved using several steps, but it was the students' job to determine how the problems could be solved most efficiently by just one step and one mathematical operation. Currently the ALPHA math third graders are working on a higher level thinking multiplication card game called Math Smart, and will be creating their own Math Smart cards that they can use to play a multi-operational math game.



Example from SET Game





## ALPHA Math—Grade 4 Mrs. Marcia Armbruster

It's exciting to have all of my last year's ALPHA students from the elementary schools together this year in one ALPHA class with me at Greenview! We began the year exploring different attribute games using SET Dice, expanding on the original SET Game rules that involve forming sets of cards according to four different overlapping rules of attributes. Students worked analytical Cross Number Puzzles, which pair deductive reasoning skills with math operations, revisiting this "old friend" from third grade, but working on the more challenging fourth grade version. Currently the students are working on how logic, deductive reasoning, and math work together, solving Number Logic riddles, and on their own using a challenge math site called Math Maven Mysteries. The fourth grade ALPHA math class will also be participating with STEP UP to solve multi-step Continental Math problems and have been working on practice problems to get ready for the November challenge.



SET Dice Game

## ALPHA MATH—Grade 5 Mrs. Marcia Armbruster

The fifth grade ALPHA math class began the year exploring different attribute games using SET Dice, expanding on the original SET Game rules that involve forming sets of cards according to four different overlapping rules of attributes. The students worked diligently on Number Enigmas, math challenges involving multiple math operations and deductive reasoning. They have begun a year-long study of ancient mathematical number systems, beginning with the Egyptian number system, which involves every stage of Bloom's Taxonomy (remember, understand, apply, evaluate, and create). The students created their own Egyptian wall hangings using original challenging math problems written in ancient Egyptian hieroglyphics and traded to solve each other's work. Currently the students are working on algebraic challenging puzzles called Crossmatics.



## ALPHA MATH—Grade Mrs. Marcia Armbruster

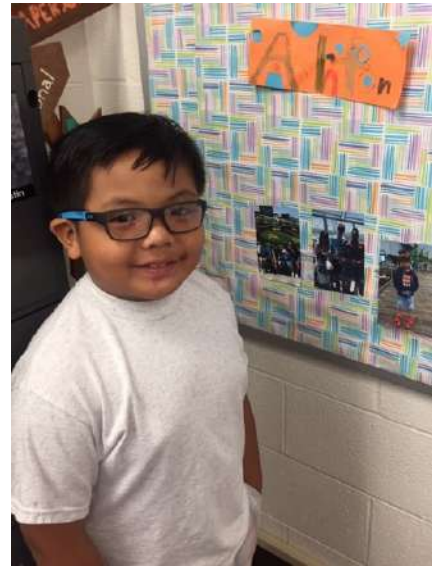
The sixth grade ALPHA math class began the year exploring different attribute games using SET Dice, expanding on the original SET Game rules that involve forming sets of cards according to four different overlapping rules of attributes. They then warmed up their higher level math skills with a set of mixed brain teaser problems that involved multiple operations and multiple steps, as well as deductive reasoning skills. In September we began the Continental Math challenge that we will be doing as a class every other month. This is a wonderful opportunity for peer teaching and in depth math discussions. The students are evaluating class data as they examine their scores and setting goals to improve personal scores over the year. The sixth graders are currently beginning a unit on binary numbers and its relationship to computer coding.



## STEP UP—Grades 3—5 Mrs. Gina Arnole

### Affective Development

An essential and important part of STEP UP is addressing the students' affective needs. All STEP UP students participate in a "Community Circle," where different social and emotional topics related to being gifted are discussed. This is a safe environment where students can feel comfortable sharing their ups and downs with other students that have some of the same gifts and talents, as well as some of the same challenges. Some of the topics are teacher directed and some are student led. Students also have the opportunity to share topics that they would like to discuss or they can anonymously leave their topic in a basket in the classroom.



### Team Building/Self-Esteem Activities: STEP UP

**Grade 3 STEP UP:** The third grade students have been getting to know more about each other with the ME MUSEUM. The students have done an outstanding job of bringing in and presenting pictures and items that represents their interests, gifts, and talents. Each student will have an opportunity to create and present their museum and all of the children will write letters to that student giving compliments, making connections and asking questions. This has been a great way to get to know the students from the other schools, build confidence and relationships.

**Grade 4 STEP UP:** The fourth grade STEP UP students have been participating in STAR student of the week. Each week I choose a student that has been kind, respectful, and hard working. We have been talking about how to give a compliment. Students learned that in order to give a meaningful compliment, it must be positive, truthful, and specific. Each child writes and presents the compliment to the STAR student and then they are hung on a poster in the room for the week. The students have done an amazing job building friendships and using sincerity when giving compliments.

**Grade 5 STEP UP:** The fifth grade STEP UP class has been participating in POSTIVE PERSON. Each week a student is selected and his or her peers fill up the white board with "positive", descriptive words about the student. Once the board is filled, the POSTIVE PERSON gets to turn around and see what was written.

## 3rd Grade STEP UP

STEP UP students have done a great job of transitioning to Greenview on Tuesdays. This is a wonderful opportunity to meet same age peers from the other elementary schools, and to collaborate and build relationships. The children started a unit about Bloom's Taxonomy, which is based on Dr. Benjamin Bloom's levels of thinking. They will be exploring each level of thinking while participating in creative projects involving a magical creature called a Gerful. So far we have discussed the Remember and Understand Levels.

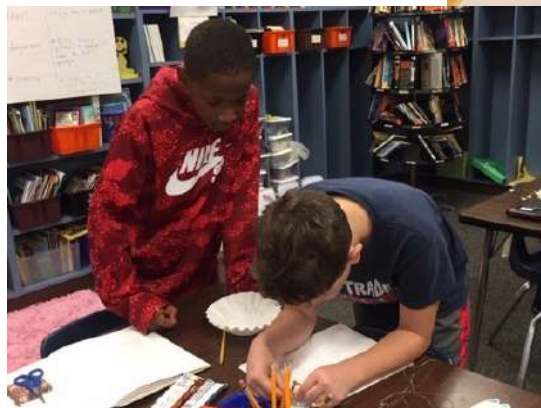
Step Up students have also been introduced to a variety of higher level cognitive thinking activities that involve critical thinking, logical reasoning, and problem solving. It All Adds Up, Think-a-grams, and Hink-Pinks have been introduced so far. Creativity, affective development, leadership, and Shared Inquiry activities are also incorporated into our day.

## STEM

All STEP UP students will have had the opportunity to work on a STEM (Science, Technology, Engineering, and Mathematics) activity. STEM is an interdisciplinary and applied approach that is coupled with hands-on, problem based learning. The students learn how to solve problems with a team using a process. The process begins with asking questions, imagining potential solutions, making a plan, creating a solution, and then improving upon the results. The process continues until the goal is met.

The **third grade challenge** was to work in teams to build a free-standing structure out of 20 pieces of spaghetti, 1 yard of masking tape and 1 large marshmallow, which needed to be placed on top of the structure. The students persevered through their frustration and stuck together as a team. They did an amazing job using the problem solving process. The height of the structures was recorded and students had the opportunity to discuss what they could change to increase the height and stability of the structure and they had the opportunity to improve upon their first tower.

The **fourth grade challenge** tied into the Wonders language arts curriculum. After reading, comparing and contrasting three different versions of Jack and the Beanstalk, the students had to work in teams to use the problem solving process to build a parachute to help Jack escape the giant. The students planned out and build the parachutes, attached a LEGO Jack, and tested their creations against a control (dropping Jack with no parachute, poor Jack.) After that they analyzed the data and drew up a plan to improve the parachute. Lastly, they reflected about whether or not their parachute was successful, what they would change and what they would keep the same.





## STEP UP —Grade 4

Mrs. Gina Arnold

Grades 4 STEP UP students are using the method of Scientific Inquiry by participating in science experiments while using the Scientific Method to analyze and draw conclusions. Students are invited to be guest scientists and share an experiment of their choice. They must also be able to teach the real world connection to their experiment.



## STEP UP STEP UP —Grade 5

Mrs. Gina Arnold

Grade 5 STEP UP students are participating in an integrated unit of study called Saving the World. During this unit the students will have the opportunity to examine the 8th Great Gripe of Gifted Kids and according to The Gifted Kids' Survival Guide by Judy Galbraith, "We worry about world problems and feel helpless to do anything about them."

We have been watching short TED videos about brilliant kids who have changed the world with their discoveries. TED is a nonprofit devoted to spreading ideas, usually in the form of short, powerful talks (18 minutes or less). TED began in 1984 as a conference where Technology, Entertainment and Design converged, and today covers almost all topics — from science to business to global issues — in more than 100 languages. We have viewed videos about a teen that built a nuclear fusion reactor that will help our future energy needs, a young man that developed a promising test for pancreatic cancer, and two 12th grade female scientists that have discovered bacteria that can break down plastic. These videos are meant to inspire the children and remind them that they CAN make a difference. In addition to the videos and discussions, students have responded to literature, analyzed primary sources for a historical perspective on polio, researched Dr. Jonas Salk and his "miracle medicine," the polio vaccine. The students will soon be using graphic organizers to plan out an essay and create a "miracle medicine" of their own.



ALPHA Reading activities (See next page for article.)



## Honors Language Arts Classes to the Cleveland Playhouse Mr. Robert Bell

Suspense is the sense of growing tension, fear, and excitement felt by the reader. When a story is suspenseful, the reader becomes increasingly curious about what will happen next. Writers use different techniques to create suspense in fiction. This is the theme of our first unit in the new 8th grade reading program called Collections.

The SEL school system supports opportunity for learning in unique fashion. Our eighth graders experienced this support by being afforded the opportunity to attend the play The Woman in Black at the Cleveland Playhouse. It coincided perfectly with our first unit in the new reading series and its theme the thrill of horror.

Making literature come alive in the play was a wonderful experience for students. After the play the students engaged in a discussion and applied the skills they had learned from their honors language arts lessons.

The Honors Language Arts classes at Memorial apply the co-teaching model. Co-teaching is an educational approach whereby general education teachers and the gifted intervention specialist work together to deliver instruction. The two educators work as partners and are responsible for meeting all students' educational needs.

Having this partnership offers the students enrichment opportunities that reinforce best practices and keeps the love of learning alive in our gifted population of learners.



## ALPHA Reading —Grades 4, 5 and 6 Mrs. Gina Arnold

ALPHA readers in grade 4 and 5 kicked off the year with a project. Each student had the opportunity to celebrate their favorite book of all time with Kleenex box creations. The sides of the boxes included information and pictures about the characters, problem and solution and theme of the book. They also rated the book and explained in detail why they recommend it to others to read. The students spend one class period passing around and reading each other's work, while keeping a list of books that they would like to read in the future.

6th grade ALPHA readers began the year with some short writing and discussion activities that focused on cooperation and conflict resolution. The student created and presented Want Ads for conflict mediators in an elementary school. Many of the students are interested in starting and participating in a similar program at Greenview. Stay tuned.

All ALPHA readers in grades 4-6 are reading and discussing short stories from the Junior Great Books collection. Students are using a Close Reading method in preparation for a Shared Inquiry method discussion.

In Shared Inquiry discussion, participants help one another search for answers to fundamental questions raised by a text. Participants come to the discussion each with their own unique way of viewing the selection and then build on their personal views through a sharing of ideas.

The leader's role in this process is to provide direction and guidance for the discussion by asking questions for which they genuinely do not know the answer. The leader could be a teacher or a student and assumes the role of co-learner and helps the group by asking interpretive questions that have more than one possible answer based on the text. The leader also assists the group by asking follow-up questions that encourage participants to clarify comments, support ideas with evidence from the reading, and comment on proposed interpretations. The goal of a Shared Inquiry discussion is interpretation.



## Coordinator's Corner



curiosity  
advanced vocabulary  
assertive behavior  
excessive shyness  
love of reading  
boredom with school  
difficulty with peer interaction  
advanced sense of humor  
multitude of interests or  
interest or hobby obsessive to the point  
of excluding all else  
poor handwriting  
inability to organize or compulsive  
organization  
very popular and active or  
a loner, enjoyment of music,  
and rhythms at an early age  
physically graceful or awkward  
understanding of social situations  
at a very young age  
specific goals set very early  
enjoys collecting  
innovative and creative in ways  
that surprise adults around them  
driven to test authority and rules  
able to set rigid self-standards  
may excel in all tasks or  
only one, often misunderstood  
often overlooked  
but happily  
welcomed by  
others with  
inquiring  
minds.



# profile of a GIFTED CHILD

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