

# Gifted Update

## STEP UP: Grades 3—5 Mrs. Gina Arnold

Step Up students have been introduced to a variety of higher level cognitive thinking activities that involve critical thinking, logical reasoning, and problem solving. Sudoku, 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 of the students 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.

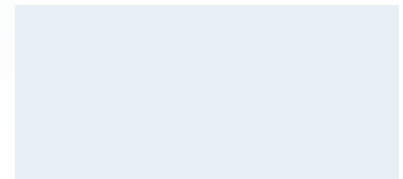
The third grade challenge was to work in teams to build a free-standing structure out of 20 pieces of spaghetti, 1 yard of masking tape and 1 large marshmallow, which needed to be placed on top of the structure. The students persevered through their frustration and stuck together as a team. They will have an opportunity to improve upon their original designs.

The 4th and 5th grade challenge was to design and build a roller coaster using foam tubes as the track and a marble as the passenger car. Throughout this activity, the students were introduced to the concepts of kinetic and potential energy, friction and centripetal force. After watching videos and designing prototypes on the computer, the students incorporated what they learned to improve their roller coasters until the task was mastered.

Continued on page 4



Third grade spaghetti STEM challenge.



Fourth / fifth grade roller coaster STEM challenge.

**Northwestern University's Midwest Academic Talent Search (NUMATS)** is a research-validated program that utilizes above-grade-level assessment, as a means of gifted testing, to help parents and educators better understand their students' educational needs. NUMATS allows eligible students to take internationally recognized tests before the grade levels at which they are normally administered. In September, STEP UP and ALPHA students in grades 6—8 received information about this opportunity. If parents need more information, please check their website. <http://www.ctd.northwestern.edu/program/numats>

## ALPHA Programming

Welcome to 3rd grade ALPHA reading and grades 3—6 ALPHA math! It has been a busy and productive start to the year as we pair and combine the academic subjects of reading and math with Bloom's Taxonomy's higher level thinking skills. All math lessons can be viewed on your child's Google Classroom, and all reading activities can be viewed on Kidblog. Ask your child to log on to their sites with you if

**Mrs. Marcia Armbruster**

you would like to view their advanced projects for higher learning. Here is a summary of what the students have been up to for the first quarter of this school year.



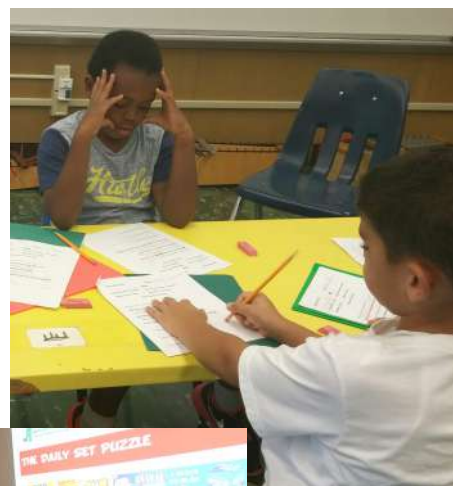
## 3rd Grade ALPHA Reading

The students at Adrian, Rowland and Sunview have been learning how to be a part of a blogging community using Kidblog, a private, secure site where teachers and students can share writing via blog discussions. Despite being in three separate buildings, all of the ALPHA reading students are now part of one virtual class! The students are involved with a unit on Aesop's Fables taken from the gifted publication "Jacob's Ladder" from The College of William and Mary's Center for Gifted Education. Here they follow the guidelines of the program's tiered structure as they read and work with the fables, write answers to open-ended questions, and comment on each other's opinions



## 3rd Grade ALPHA Math

The elementary ALPHA math third graders have learned to play SET game online, a deductive reasoning attribute game that warms them up for their higher level math activities. Students are also working with Cross Number Puzzles (strategic multi-layered addition puzzles), and Number Sense which involves evaluating and creating sentences and paragraphs in which different parts of speech are assigned different monetary values.



## 4th Grade ALPHA Math



Greenview 4th graders began their ALPHA math experience with the strategic yet chance-driven game of “Pig” and the multiples version of “Buzz.” The students have solved and defended Number Logic Problems (deductive reasoning skills tied in with math), and are working on pre-algebra skills with Cross Number Puzzles (strategic multi-layered addition puzzles).

## 5th Grade ALPHA Math

ALPHA Math 5th graders began the year with a Scrabble value word math challenge. They have also learned about and worked with the ancient Egyptian number system—the first in a series of ancient mathematical systems we will study this year. The students are solving higher level challenge problems called Number Enigmas, which involve using a variety of operations, math skills, strategies and perseverance.



## 6th Grade ALPHA Math

Greenview 6th Grade ALPHA Math students began the year examining and analyzing the Perpetual Calendar and historic events. They have also been analyzing, solving and peer teaching higher level math/logic/deductive reasoning problems called Math Quest. They have recently been working on the website TedEd viewing videos of complex math situational problems and are working to write detailed analyses and solutions for peer evaluation and submission to the website. Stay tuned....The 6th graders will be writing and creating their own mathematical animation problems for possible submission as well!



## ALPHA Reading Grades 4—6

Mrs. Gina Arnold

All groups have started Novel Studies. The 4th grade novel is *Masterpiece* by Elise Broach, the 5th grade novel is *Counting by 7's* by Holly Goldberg Sloan, and the sixth grade novel is *Three Times Lucky*, by Sheila Turnage. Each student has their own copy of the book and the method of Shared Inquiry is utilized to facilitate discussion. One learning target that I am focusing on is to have the students initiate a collaborative discussion. This gives them the opportunity to take ownership of the conversation. The students discuss passages from the book that they feel provoke strong emotion, are important or confusing.

All groups are also communicating and responding to literature using Kidblog, an online blogging site. This lets me stay in touch with students on the days that we don't meet. Kidblog allows the students to post rough drafts of creative writing pieces for peer feedback, comment on each other's opinions and views, and make book recommendations.



## Anatomy Camp at Case

A group of Memorial students had the opportunity to attend Anatomy Camp at CWRU. Their experience began with a tour of the campus, specifically the medical area of the university. The students then gathered in a lecture room and were given information about a fictional patient's problems. Then they went from station to station in small groups, learning about the different parts of the body and why the patient was having problems with each part. One station dealt with the digestive system, one with the heart, one with bones and one with medical devices that could be implanted to help the patient—such as stents and bi-pass tubes. Students were given the opportunity to touch real human organs and were able to ask the medical students questions about the medical careers they were pursuing.



## STEP UP: Grades 3—5

continued

### Affective Development

Another 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.

### Bloom's Taxonomy

Grade 3 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.

## STEP UP Scientists

Grades 4 and 5 STEP UP began using the method of Scientific Inquiry by participating in science experiments while using the Scientific Method to analyze and draw conclusions. Students had to determine how I was able to get a hard-boiled egg inside a glass bottle. 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.

4th grader, Jade Tumbry, was our first Scientist of the Month. She shared the book, Bartholomew and the Ooblek with the class. After that, she discussed her experiment using the Scientific Method and made Ooblek. Jade also taught the class about Newtonian Substances. All students are encouraged to participate.



## STEP UP—Grade 6

Mr. Robert Bell

Great to get grade 6 STEP UP off to a good start this school year. The students have been working diligently to solve our Mystery Disease. Our Mystery Disease unit begins with several citizens of the fictitious town of Medville being afflicted with a mysterious illness. It is up to our medical teams (6th graders) to solve the problem. Is the illness caused by the fair that is in town, the animals, or a church camp? This problem-based unit will engage several important life-long learning skills like research, group interaction, cooperation, problem-solving and creativity. Stay tuned!

Another component of our sixth grade programming is the Junior Great Book Program. The Junior Great Book curriculum is designed for gifted readers. The short stories in these books provoke critical thinking and ask challenging questions for discussion. Please ask your child to share some of this outstanding literature. Feel free to ask them provoking questions of your own!

Each week on our itinerary is a creativity challenge which is STEM oriented. We are fortunate to have class sets of Legos designed to teach engineering and math skills. Our first several challenges had to do with wind power. Students were asked to follow the detailed directions to make a vehicle and then modify it to perform at optimum levels. Great fun and learning too!

Leadership skills are another craft we focus on in grade six. Using the Psychology for Kids program and other proven methods of teaching self-awareness for young learners, helps students understand they are okay just as they are. We talk about how they interact with others, identify strengths and weaknesses, and work together to get better in every day life challenges. This affective development is imperative to gifted programming.

## STEP UP—Memorial

Mr. Robert Bell and Phoebe Patch

The STEP UP students at Memorial have experienced a lot of enriching opportunities so far this year. At the beginning of this quarter, we began learning about Shakespeare. Students learned about the complex language used by Shakespeare as well as some of his complex plots, characters and conflicts. In one of several activities, students were asked to team up with some friends and re-enact one of the scenes from *Romeo and Juliet*. Each troupe of budding actors was asked to choose their parts and to choreograph a scene—complete with fake swords and words of passion when called for in the scene. We also recently started the

study of Shakespeare's play, *Twelfth Night* and had the opportunity to attend a live performance of this play at Playhouse Square.

Seventh and eighth graders are learning about the stock market by engaging in the Ohio Stock Market Challenge. Students are being taught how to buy stock, how to decide what stocks to invest and how the stock market works. The class is divided into teams. Each team begins with \$100,000 and tries to earn the most money during the 3 months of the stock market simulation. This competition is all about strategy and learning about a real life process that they may use as an adult.



Sixth grader STEM/Lego challenge.



Bryce Hodge, a Montague, battles with Michael Guzzo, a Capulet, in a classroom in fair Verona.

## Coordinator's Corner

"Perhaps learning should be a life-long journey, not a 13-year race."

Nancy Johnson

Programming for gifted students is often based on either acceleration or enrichment. Gifted programming in South Euclid Lyndhurst blends tenets of both philosophies depending on the needs of individual students.

Acceleration, which may include the practice of entering school early, skipping a grade, enrolling in College Credit Plus programs, or simply placing students in a more advanced course of study for a particular discipline is appropriate in a few cases. These activities are planned through careful, detailed assessments of students' unique characteristics. There is much to consider—acceleration is no simple move.

On the other hand, enrichment-based programs offer rich opportunities for students who are gifted. This programming approach supported by principles of differentiation, along with STEP UP programming, is employed in South Euclid Lyndhurst. The Gifted Intervention Specialists and the Gifted Coordinator are available to meet with regular classroom teachers to plan content enrichment and extensions to the grade level curriculum. The enrichment and extensions are always based on the classroom curriculum. Content extensions activities, coupled with principles of differentiation, can lead to appropriate experiences for our gifted students.

Content enrichment-based programs, coupled with differentiation are an appropriate programming option for our gifted students for several reasons.

1. Differentiation may modify the content of a lesson—what is learned. Extensions can offer more breath and/or depth to the standard content. (Example: Standard content may ask students to understand the character traits of the main character in the story. Extension with differentiation may ask students to be able to compare and contrast characters from more than one story using a Venn diagram)
2. Enrichment may be offered by looking at unique topics that parallel the standard curriculum. (Example: Class is studying the topic of place value and gifted students may also look at place value in another number system to find ways they are the same and/or different.)
3. Enrichment can allow students to continue in their curious, childlike behavior without too much stress. Acceleration, by definition, puts children into stressful situations. Their gifts become associated with pressure, not pleasure.
4. Enrichment programs, with their rich, varied texture and multiplicity of experiences may enable gifted youngsters to develop even more critical-and-creative-thinking skills. (Example: Differentiated enrichment / extension activities are based on the upper levels of Bloom's Taxonomy—the levels that promote thinking in these two areas.)

Lastly, I would like to refer back to the thought at the top of this page. School is not a race. Gifted programming is trying to meet the unique needs of all its students. In a few cases it may be acceleration, but for many, the content enrichment / extension activities based on principles of differentiation will help to meet the needs of this student population.

Please feel free to call or email me if you have any questions / concerns.

South Euclid Lyndhurst Schools

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