



PIEDMONT MIDDLE SCHOOL

an IB World School

Talent Development News

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6th Grade Math

As the first quarter wrapped up the overlapping project due in the beginning of second quarter was the Graph It Project. Using surveys, students collected data and displayed this data in a variety of methods. The project was evaluated for their first IB Assessment, incorporating the following criteria:

- "Criterion A - Knowledge and Understanding:" students evaluation was based upon their overall performance on the project
- "Criterion C - Communication:" students evaluation was based upon how well they communicated their ideas and their ability to successfully reflect upon their work

Students created excellent projects and selected work which was displayed throughout the halls and classrooms in the building. In fact, great praise was given by many of the observers in early December during our "Schools to Watch," visit.

Students also had their Newspaper Project due a few weeks into second quarter. The math section of the project involved finding graphs/tables in the newspaper and writing a short reflection about each. These reflections were used as their next IB Assessment for "Criterion C: Communication:" students were evaluated based how well they communicated what the graphs displayed, using mathematical terms and knowledge.

The curriculum of second quarter involved solving problems by using rational numbers and integers. Rational numbers include all fractions, mixed numbers, decimals, negative/positive numbers and percents. Students became fluent in all operations and conversion between all examples listed above. Students were also encouraged to utilize their skills at home, while shopping, or out to eat. If you are trying to find a discount, sales tax, tip, or your total cost, ask your student for help and be surprised by the ease with which they can calculate such estimates.

When we returned from break, students started using the "S.O.L.V.E. method" to solve more difficult word problems as a daily assignment to begin class. This method requires students to slow down and take time to critically think about the steps used for solving problems. Communicating their ideas and solutions in a clear and concise manner is also required and develops their communication skills as an IB student.

As we made it through all the snow and days off, we are finishing up the semester with a mid-year review to re-loop all concepts that have been taught throughout the first half of the year. Students have created manipulative and study tools to help aid in their preparation for the already approaching EOG's. Weekly problems on the computer program, "Study Island," will become a regular assignment until EOG's are complete as another step in preparation for testing.

The year is going fast; before you know it EOG's will be a few weeks away and students will be rising, seventh graders. Finally, please help to ensure that your child's community service hours are turned in to math teachers by April 29th to secure placement for next school year!

6th Grade Language Arts

The 6th grade TD students have continued to learn how to be independent, inquisitive, and principled by using their daybook, asking questions, completing projects and turning work in on time.

This quarter, the sixth graders at Piedmont are learning about fiction. The genre of fiction focuses on the theme of citizenship. How do citizens impact the identity and culture of a community? The fundamental concepts used throughout this quarter consist of reading and writing fictional texts, differentiating between the different types of fiction, discovering author's purpose, summarizing different viewpoints, mastering organizational patterns, utilizing the writing process by creating a biography, using context clues to better

understand texts and the meaning or unfamiliar words, differentiating between the developmental stages of plot, participating in

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6th Grade Language Arts – Continued

literature circles, working with sensory details, characterization, making inferences, participating in novel studies, learning about the importance of propaganda and creativity, and comparing/contrasting different cultures and time periods with today's society.

Many of us are now aware of several reading and writing strategies and will continue to use them in all of our classes to answer questions in complete sentences with supporting details. In addition and by quarter's end, we will have completed a fictional novel study, created a story map, a character sketch, and we will have continued reading our selected novels for the *40 Book Challenge*. All of these projects consisted of second quarter's fundamental concepts, which add to Piedmont's creativity of expression

Soon, we will be able to master challenging vocabulary, demonstrate the ability to make connections using text to text, text to self and text to world. Furthermore, the students will be able to find the significance through learning about the many different elements within a story.

The 6th grade Language Arts teachers, focusing on the units of Historical fiction, the Holocaust, and the elements of Poetry, are looking forward to the 3rd Quarter.

Seventh Grade Math

Why do I have to learn this? When will I use this in the real world? As math teachers, these are questions we encounter on a weekly basis. During middle school we are teaching students the building blocks of math. We are giving our students the skills they will need to do higher levels of math in the future. We are teaching our students skills so that they can later apply them to everyday real world situations.

During second quarter, we were given an opportunity to show students how math relates to real life. Seventh grade students have taken skills learned from first quarter and are applying them to the new skills learned during second quarter and to real world application problems.

Standard Plus started off the quarter by learning how to manipulate decimals. Students then solved real life problems involving money, travel, and measurement. They discovered how important it was to have accurate answers and when it was appropriate to estimate. Next, they moved on to rates, ratios, proportions, and scale factors, where students applied their newly learned skills in dealing with sports statistics, cooking, and architecture.

Honors began second quarter by exploring algebraic equations. They developed their skills of solving multi-step equations and systems of equations. Students solved real life problems, using the skills learned to solve equations. Students learned that they could use equations to make educational decisions on such things as: which cell phone provider is most economical, or whether it is beneficial to get a season pass to Carowind's, rather than pay as you go. Students then worked on their data analysis skills. Students learned how to analyze multiple forms of data and which graph best represents that data. Students demonstrated their knowledge of data analysis through an "Are You Average" project. Students collected data from their fellow students in class and then visually represented what the average student at Piedmont is through graphs and hand drawn pictures.

At the end of the quarter, both Standard Plus and Honors reviewed rational numbers through a group activity. The students worked on our culminating cookie activity. Students converted recipes and determined nutritional value using mathematical skills taught in class. Students also learned how baking involves both Math and Science. The students baked sugar cookies from scratch and used their math skills throughout the process. It was a great activity and the students learned some very important life skills that they will definitely use in the future. Students and teacher had a fun and educational second quarter.

Seventh Grade Language Arts

Seventh Grade has really been working on some creative projects second quarter. We completed the Propaganda and Persuasion project in Mr. Milligan and Mrs. Brown's classes and Mrs. Thornburg and Ms. Whiting completed a research project on homelessness in our community. The propaganda and persuasion unit required students to create advertisements and commercials and how to market various products. The homeless unit required students to do extensive research on homelessness and compare statistics of homeless populations locally, nationally, and globally. Students created power points, slide shows, pamphlets, or tri-fold boards to present information gathered. Students were given the opportunity to interview some visitors from Urban Ministries, as well. Students were able to reflect on their findings and they thought of ways they might be able to help homeless neighbors. Students wrote poems, songs, and essays to convey these feelings about our topic.

Currently, we are starting a new novel study. Students in Mr. Milligan and Ms. Whiting's classes will be reading The Pigman by Paul Zindel. The culminating project will be an in-class mock trial. Students will be reading the book and taking notes as either prosecuting or defense attorneys. They will put together a court case that will be decided by a jury of 8th graders.

Mrs. Brown's students will be studying Scorpions by Walter Dean Myers. Students will be completing a variety of activities to compliment the reading.

Mrs. Thornburg's class will be reading Animal Farm by George Orwell. Students will have an in-depth review of Russian history and especially the Bolshevik Revolution. Students will be able to see the parallels between Russian leaders, Karl Marx, and social concepts like greed and religion and the characters of the novel. We will look at why Orwell was moved to write this novel as well as the famous novel, 1984. Students will complete a variety of challenging activities throughout this novel study. Even though we are all reading different novels, our concepts and themes will be closely related. Our theme for the year is "courage," and we will focus on this theme throughout the novel study in all of our classes.

Eighth Grade Language Arts

This quarter in eighth grade language arts we studied Greek Mythology, paying close attention to our essential questions: "How are we responsible to our family? How are we responsible to our world family?" Students were all expected to have their own copy of *The Adventures of Ulysses*, by Bernard Evslin, so we could work on annotating the text as we read. We were so impressed by the improvement in reading comprehension of each student from their annotations in the book. They all made huge strides in their ability to ask in-depth questions, make predictions, and identify the main ideas. Their summarizing also improved greatly in breadth and completeness.

As a cumulative assessment, students were expected to demonstrate their annotating and summarizing skills. Additionally, they wrote a literary analysis which is a skill very important in an IB education. In order to receive an IB diploma, a student must pass all exams which are essay exams in all subject areas. Because of the focus in North Carolina on multiple choice testing, writing analysis often suffers. Our eighth graders were able to use their annotation to guide their writing and formulate a response using textual evidence.

Since we have seen such remarkable improvements, we are encouraging our students to purchase the next text we read—Shakespeare's *A Midsummer Night's Dream*. Though this is an activity normally practiced in private schools and college, we want our students to benefit from annotation and literary analysis before they enter high school.

To continue exploring our essential question, students use the problem solution process to examine a problem faced by families in Charlotte and world-wide. They examined the problem in depth and created a power point to present their findings to classmates. The eighth grade language arts department looks forward to another successful quarter, studying Shakespeare's *A Midsummer Night's Dream*. We will soon begin creating our "stages" in our classrooms as we begin reading this very challenging and rewarding text.

Eighth Grade Math

Algebra students will finish 2nd quarter by taking their mid-term. The mid-term will cover all they have learned this year, including polynomials, linear equations, functions, and inequalities. Students also used their knowledge of linear equations and linear inequalities during the Amazon Mission: Malaria Meltdown challenge. This mission was a way to introduce students to the fields of engineering, science, technology, and math. Students were first introduced to their “problem” by learning the Engineering Design Process (EDP). Students had to work in teams to define the problem, research what can be done to solve the problem, brainstorm ideas and find possible solutions to the problem, choose a best solution, build a model or prototype, test the model or prototype, communicate to their peers their prototype and then redesign the prototype. The challenge was to design a medicine carrier that can safely keep Malaria medicine between 59°F and 86°F for the entire hike (2 hours) through the Amazon jungle to one of the small villages of the Yanomami. If the medicine temperature went above 86°F, the medicine would spoil. So far, a few medicine carriers have failed and students are working out solutions as to why it failed and how to improve the carrier in the future. Students are enjoying applying their knowledge to a real-life situation.

Standard Plus 8 students have focused on measurement and geometry this quarter. A large part of the unit focused on using manipulatives (tiles and cubes) to discover patterns related to area, perimeter, volume, and surface area. Sample challenges included finding out how many different rectangles could be built given a fixed perimeter and finding out how many different rectangular prisms could be built given a fixed number of cubes. Ultimately, the students answered the question, “How many mice are needed to balance an elephant on a scale?” Students then applied this knowledge of perimeter, area, volume and surface area to the study of changing dimensions of various types of objects. Students determined the effect of changing one or more dimensions of two- and three- dimensional objects and identified patterns. Students then combined their knowledge of triangles, rational numbers, and solving equations to solve problems involving the Pythagorean Theorem and indirect measurement. Given the eighth grade focus on using math skills in context, the majority of our work involved solving word problems that connect the math concepts to real-life situations.



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Mission Statement

Piedmont exists to inspire in its students a passion for learning and a commitment to personal integrity and academic excellence. Students demonstrate self-confidence and creativity, are open-minded and inquisitive, and display a sense of social responsibility and global awareness.

Piedmont ... You Know ... We Care!

What is Talent Development?

The **Talent Development Program** for gifted services is based on consultation and collaboration between the talent development and classroom teachers. They work together to meet the needs of the high achieving student.

Program Benefits

- Gifted education and general education are related, connected and integrated.
- Out of class sessions are scheduled when needed most.
- The pace of learning is enhanced.
- High achieving students receive more challenging tasks within the classroom.
- Classroom and TD teachers work together to maximize student learning.

Did you know?

- Research on the TD Program indicates that students receive at least three times the amount of services using this model compared to the old pullout, once a week program.
- The TD model is most effective when high achieving students are flexibly grouped together based on their instructional needs.
- Every school has a Talent Development teacher.
- The TD teacher at your child's school can tell you how they work with your child and your child's teacher.

TALENT DEVELOPMENT TEAM

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