

OVERVIEW

English/Language Arts/Reading

Elementary:

As a district, we are committed to reading instruction that evolves based upon current research on best practices in the field of literacy education. We are also committed to ongoing professional development for all teachers, including teachers new to the district, given our belief that high quality instruction and teacher expertise are the most critical factors in students' literacy achievement.

Teachers and administrators have invested much time and effort to develop a framework for balanced reading instruction. In 2001-2002 an extensive review of literature and school visitations resulted in the development of a framework for balanced literacy. During 2002-2003 a group of kindergarten, first and second grade teachers piloted the new framework in their classrooms. In 2003-2004 this framework for balanced reading instruction was implemented by all kindergarten through second grade teachers as well as resource teachers and reading specialists. In 2004-2005, the K-2 pilot became a program. Similar research, piloting and work was completed in third through sixth grades throughout 2002-2005 with the 3-6 Balanced Literacy Program being established during the 2005-2006 school year.

In an effort to effectively implement the Balanced Literacy Program in all grades K-6, the district has been committed to an enormous amount of ongoing staff development for all teachers. Staff development opportunities include, but are not limited to, presentation of information by reading consultants, administrators and teachers; classroom and consultant visitations; demonstration lessons; modeling of instruction; shadowing when completing reading assessments and an open dialogue between administrators and teachers as well as between teachers.

Realizing the importance of establishing a structure to sustain the growth of this initiative, a Turnkey Trainer Program was developed and implemented in kindergarten through second grade in 2005-2006 and grades three through sixth in 2006-2007. At least one K-2 classroom teacher or reading specialist and one 3-6 classroom teacher or reading specialist has been identified in each elementary building. These individuals serve as resources to staff members in the building providing support and guidance with regard to the Balanced Literacy Program. In addition, these individuals plan and present staff development sessions to all teachers and support staff. These individuals are able to effectively teach other teachers about the Balanced Literacy Program. During the spring of 2008, the turnkey trainers in grades 3-6 piloted a new reading assessment, the Benchmark System II from Fountas and Pinnell. They, along with the administrators overseeing ELA in the district, decided that the adoption of this new assessment would greatly benefit our students through the acquisition more detailed and informative data student reading performance. This new

assessment was implemented during the 2008-2009 school year. During 2009-2010 school year, K-2 turnkey trainers will be piloting the Benchmark System I from Fountas and Pinnell for grades K-2.

Just as the district is committed to providing consistent staff development opportunities to teachers, materials and resources are also continually purchased to enhance the Balanced Literacy Program and reading instruction to our students. Leveled and unlevelled books are purchased for the book rooms as well as for classroom libraries. Additional book club units are developed each summer providing greater choice to teachers and students. In addition, instructional materials are purchased for teachers and support staff to further their understanding of literacy and the teaching of reading. With the addition of Maplewood Elementary to our school district, additional staff development and resources have been provided to assist the Maplewood teaching staff to become comfortable implementing the Balanced Literacy Program in their building.

We continue our work on the writing initiative begun in 2004-2005. Through extensive reading and discussion of professional literature and continued work with a consultant, Susan Burke, the English Language Arts steering committee has developed “Universals for Writing Instruction in Grades K-12” as well as creating a framework for writing instruction. During the 2006-2007 school year, a group of teachers met several times to develop units of instruction for writing that reflect both the universals and the framework adopted by the district. During the 2007-2008 school year, a “Writerly Life” unit was developed in each grade K – 6 and the first steps of curriculum mapping were taken during the summer of 2008. Future work in this area will include the continuation of the work begun with curriculum mapping. The ultimate goal will be a curriculum map for English Language Arts instruction in grades K- 12. In addition, during the summer of 2009 a group of teachers received staff development in “Writer’s Workshop”. These individuals will be piloting this approach to writing instruction in their classrooms during the 2009-2010 school year. This approach to the teaching of writing will be introduced to the remaining K-6 teachers and will be eventually be implemented in all K-6 classrooms.

In the area of Academic Intervention Services (AIS), the district closely monitors student performance and progress providing additional academic support to students in reading and writing. Criteria are identified and the frequency and intensity of support are determined. As per state guidelines, parents are notified of the service(s) provided and given quarterly progress reports.

Kindergarten Intervention Program (KIP):

The Kindergarten Intervention Program remains an excellent intervention for some of our kindergarten students in need of additional assistance. Students are identified for KIP through the preschool screening process held at each

school in February and March. To evaluate the incoming kindergarten students, the Bracken Basic Concept Scale is used with a cutoff score for students recommended of 7 or lower. Most recently, however, we have decided to evaluate students for KIP placement if they score 9 or lower. North Colonie incoming kindergartners average a screening score of 12 compared to the average national score of 10.

A comprehensive array of services is provided by a kindergarten teacher, a reading specialist, speech therapist, and ESL/ELL language teacher. This collaborative team works with the classroom teachers and there is extensive cooperation with parents throughout the school year. The parents of all students participate in conferences with teachers and specialists working with the students. Parents are invited into the classrooms and are provided with information about how to best support their children. Parent support is critical to the success of the program, and we find that parents of KIP students are eager to work with their children and use extensively the suggestions provided by the teachers. To this end, considerable emphasis is placed on the importance of parents reading to and talking with their children each day. Games, books to read and other activities to support literacy development are suggested by the KIP staff.

Children assigned to KIP attend either the Forts Ferry, Latham Ridge or Maplewood program. The following represents the number of students who attend the kindergarten intervention program in 2008-2009.

Forts Ferry	-	12
Latham Ridge	-	12
Maplewood	-	12

This year, five parents declined their invitation to enroll their children in KIP. Because of the value of the program, we make a conspicuous effort to contact parents who declined to enroll in the program. In addition, our program coordinator, Dr. Lobdell, provides an information session for parents. We also try to follow up with phone calls to ensure that parents understand the nature of the program and to stress the value of KIP. KIP continues to be a program marked with substantial academic, social and emotional growth for participating students. By the end of the school year, students have learned to identify letters of the alphabet, develop stronger letter sounds, word recognition skills, and stronger comprehension strategies. The full day setting provides a wide variety of learning experiences. Included among these are cooperative learning, problem solving, and good decision making.

The phonological assessment test (PAST) was administered to all students as a pre and post test. Forts Ferry's KIP students achieved a mean raw pre-test score of 7 and a mean raw post-test score of 19.5. At Latham Ridge, the mean raw pre-test score was 6 and the mean raw post-test score was 19.5. At

Maplewood, the mean raw pre-test score was 10 and the mean raw post-test score was 18.5. The average gain in growth for students participating in KIP was 11.5.

Junior High:

The seventh and eighth grade English/Language Arts program is designed to emphasize the basic skills in the areas of reading, writing, listening, and speaking. Approximately twenty-five percent of each grade level is enrolled in the Enriched English/Language Arts programs. These programs include reading material of greater complexity and higher degree of difficulty and emphasis is placed on depth of critical analysis of reading and writing tasks. Both regular and enriched levels of course study include specific instructional practices and activities designed to improve students' skills in English/Language Arts including writing/grammar curriculum, instruction of spelling and vocabulary, and the instruction of reading and writing skills and strategies. Student-centered activities, such as small group literature circle activities and projects, are commonly featured in classrooms.

Emphasis is placed on requiring students to engage in reading texts outside of the required classroom texts in an effort to nurture students' love of reading. A critical component of the outside reading is the element of student choice. Classroom teachers and the library specialists will often plan book talks to introduce students to a variety of titles touching on age appropriate interests. Another means of enhancing outside reading is through the 7th and 8th grade Summer Reading Projects. The library specialists provide book talks to all current 6th and 7th grade students to prepare them for the Summer Reading Projects.

An AIS program, Fundamental ELA, is provided for 7th and 8th grade students who have not met with proficiency on previous NYS ELA Assessment and/or have been identified as being at risk of not meeting with proficiency.

High School:

The objective of the high school English/Language Arts program is to continue to refine student skills in reading, writing, and critical thinking. Students in Shaker High School English classes are respected as members of a community of people who support each other's efforts to develop as writers, readers, and thinkers. In this community, the individual voice is valued and celebrated, as students learn to respect the complexity of others' thoughts and develop flexibility in their own thinking.

Reading skills ranging from vocabulary acquisition to inferential comprehension are addressed through the close study of literature. The explicit reading instruction necessary to help students comprehend increasingly

challenging texts typically involves three stages: pre-reading, reading, and post-reading. Successful pre-reading instruction not only motivates students to become engaged in the learning of sometimes difficult content, but also allows teachers to introduce and model literacy-related skills which students can use not only to probe the assigned text, but any future text they might encounter. Exemplary reading instruction moves beyond answering the question of *what* is in a particular text to considering *how* we derive meaning from any text. During reading, teachers provide opportunities for both guided and independent practice in order to lay the framework for deeper comprehension. The final phase of a literacy plan involves extension beyond the text. Here, the whole classroom community works together to construct meaning. The teacher, acting as a facilitator, helps students to synthesize information, analyze new knowledge, apply new learning, and evaluate the author's argument or underlying intent.

The study of literature is closely related to the study of writing. Reading critically allows students to develop an enriched vocabulary, examine grammatical constructions in context, and gain familiarity with the ways writers work. As students learn to "read like writers" and thoughtfully respond to such reading, they become aware of the ways that they, too, can write. In such an environment, teachers design writing instruction focusing on seven different domains: literary analysis, research-based writing, creative fiction, creative nonfiction, poetry, meta-cognitive writing, and test preparation/on-demand writing. To help students grow as writers in each of these domains, teachers focus on the process of writing as well as the product, providing students with the experiences and requisite skills necessary to be independent thinkers and writers at all stages of the process, from idea generation to revision and critique. Much like reading in the Shaker High School English classroom, writing is a method of exploration and a means for discovery.

Remedial Reading/ESL

Remedial reading specialists work with students who demonstrate difficulties in reading in an effort to upgrade skills to a point where such students can function effectively in the regular school program. Our reading specialists use the district balanced literacy program and have participated extensively in the training involved to be successful in this approach. Five of the reading specialists are also turnkey trainers for their buildings. Balanced literacy emphasizes basic skills and instruction centered on scientifically researched models. We institute a combination of pull-out and push-in environments for remedial instruction, and these have been effective across all elementary levels. Also effective was the use of materials on student's instructional level through the use of leveled books. Through analysis of results on standardized tests, state

exams and the percentage of students who no longer need the services, we know that our remedial reading program is meeting the needs of our at-risk students.

Elementary school principals greatly appreciate the effectiveness of the five and three day a week first grade reading program, as well as the support for students in grades two to six. With the additional active involvement of the reading specialists in the balanced literacy program, teachers are able to support the literacy instruction in the classroom through the pull-out and push-in support. The commonality of language and instructional strategies has improved reading instruction and encouraged collaboration among staff.

At the secondary level, the reading teachers often attend English department meetings to ensure language arts objectives are met and that New York State assessments receive proper attention. Remedial reading teachers also communicate weekly with classroom teachers at the secondary level about topics, reading materials, and writing assignments to ensure that reading classes support the work of the regular education English/language arts and social studies teachers.

At Shaker Junior High School and Shaker Senior High School, the reading programs emphasize the basic skills in content in support of English and social studies curricula. The secondary school principals recognize the reading specialists' knowledge in supporting the needs of remedial readers and supporting the instruction necessary for improving students' results on the state assessments.

Reading specialists attend and actively participate in the Child Study and Pupil Services Team meetings. Results on the IOWA's and state assessments reflect the high level of support provided in the primary grades.

At the junior high school, the five-day a week reading/writing program continues to provide students with a good foundation for the 7th and 8th grade ELA curriculum. Instruction at this level includes vocabulary development, reading comprehension, and learning strategies. Critical to the success of the program is the use of literature on the students' instructional level. The continued relationships cultivated with the English and social studies departments helps the high school reading teachers provide critical support to these two areas.

Students in the English as a Second Language Program (ESL) are identified through state testing when they enter the school district if a second language is spoken in their home. Every student receives services based upon the results of the testing. Students can be identified as beginner, intermediate, or advanced. Students must pass the New York State English as a Second Language Achievement Test (NYSESLAT) before they can be dismissed from

the program. Each school has an ESL teacher who collaborates with the classroom teachers to ensure each student receives sufficient support with their academic needs.

Mathematics

Elementary:

At the elementary levels, the K-6 mathematics program follows a spiral model in that most topics are taught in each grade level, but differ in the range of depth and breadth of topics and activities. There are five content strands as determined by NYSED, which include: Number Sense & Operations, Algebra, Geometry, Measurement, and Probability & Statistics. The five process strands include: problem solving, reasoning & proof, communication, connections, and representation. The primary goal of the mathematics program is to have students master basic functions in the elementary grades, and gain further understanding of mathematics as a system of logical reasoning with abstract symbols, at the secondary level.

Instruction is differentiated to ensure that students successfully master New York State and North Colonie objectives. Manipulatives, learning centers, literature, and technology are all tools and strategies that are utilized during the teaching and learning process. The district Intranet, maintained by Instructional Technologist, Gary Cimorelli, continues to serve as a resource for additional activities to enhance math instruction and understanding.

The criteria used in the past to determine which students qualified for Academic Intervention Services in math have been maintained. Students scoring below the 30th percentile on the total math section of the Iowa Tests of Basic Skills and those scoring at Level 1 or low Level 2 on the state math assessments received remedial math instruction in grades two through six. Students scoring a high level 2 received math monitoring. The classroom teacher closely monitors each student's performance throughout the year. Parents are notified of the service(s) as well as the level of intensity and frequency received by the students. Teachers report quarterly progress on the report card.

Remedial Math:

The purpose of remedial math services is to work with students who demonstrate difficulties in mathematics to upgrade basic skills to a point where such students can function effectively in the classroom program.

The remedial math services are provided students in grades 2-6 who qualify by standardized test scores, NYS Math Assessment levels or teacher-documented failure. Whereas the special education students had previously not

been enrolled in remedial services, the new A.I.S. regulations clearly paved the way for discussing individual student needs by the building A.I.S. committee; thus, making remedial math an additional option for special education students.

One of our major goals is to excite the students about mathematics – to use colorful, “fun” resources, to model teacher enjoyment when doing math, and to let the students observe how the teacher enjoys having them in the group. Within this environment, students are nurtured and immersed in mathematics. Observations have shown that this approach is very successful. Students often ask to come daily and will seek out the remedial teacher for help with homework.

We focus on acquisition of basic skills in collaboration with classroom teachers. However, we also place great emphasis on the attitudes about mathematics and perceptions of themselves as math students. We have brought to their instruction the same discovery methods and “can-do” approach that we use with students in Alternate Math.

During this year a combination of push-in, pull-out approaches in consultation with classroom teachers was continued. Collaboration occurred with the teacher before remediation to determine the skills and skill levels to be emphasized.

Alternate Math:

This program is the primary math instruction for our unusually talented math students at grades 5 and 6. Daily instruction in Alternate Math, in most cases, occurs when all grade level students are in a regular math class so as to avoid pulling the math students from other subjects.

There are multiple avenues to consideration for placement. In May my office generates a list of 4th grade students who scored at a Standard Age Score of 128 or above on the Quantitative subtest of the Cognitive Abilities Test given at grade 3. Also on this list are names of students who have been designated previously by the Pupil Service Team as demonstrating enough math talent to be placed on a “math monitor” list. The 4th grade teachers are then invited to add to the list those students, who in their professional opinion, need greater challenge. After final PST discussion, the list is sent to my office from which Permission to Test letters will be sent to parents. Of course, if a parent sends a written request to test, the process goes forward. At any time during the 5th and 6th grade years, a classroom teacher at that grade level may bring a student to the attention of the Team.

The math proficiency profile of each student nominated for the program is developed by the Pupil Service Team using the performance on the NYS Math Assessments, local percentages on the IOWA math tests, the results on the math and reasoning subtests on the grade 3 and grade 6 Cognitive Abilities Tests, and the performance in math enrichment in the classroom. Classroom teachers provide the report card and a summary of the “math” thinking observed. Finally, the Test of Mathematical Ability of Gifted Students (TOMAG) is administered. A math quotient of 121 or above is considered – “high probability of mathematical giftedness” and the Team uses all of the information cited to determine whether the student is best served in classroom enrichment or Alternate Math. The question before the P.S.T. is whether the student is sufficiently challenged in the classroom enrichment environment or needs further challenge.

The curriculum in Alternate Math is accelerated in pace for basic skills and level of new math topics. New topics covered at grade 5 include understanding rational numbers, two-dimensional measurement, statistics, two-dimensional geometry, fractions, decimals and percents and relationships, polygons and angles, factors, products and factorizations, and graphing. Topics at grade 6 include variables and coordinate graphs, analyzing graphs, using a graphing calculator, using rational numbers, probability, expected value, similarity and geometry, integers and coordinate grids, percents, fractions and decimals, introduction to algebra, ratio/proportion, Pythagorean theorem, irrational numbers, rational and irrational slopes. Students at both grade levels were provided experiences with math competitions, e.g. NYS Math League, Olympiads.

The instructional method is one of investigation and discovery of mathematics concepts. Once a concept has been established through exploration and discussion, the students apply, extend and reflect on what they have learned. Each student keeps a math notebook to record important information and models for solutions. Each student is also provided with a locally developed resource, "Important and Necessary Concepts", at the beginning of a new topic. It provides a summary outline of the important concepts that will be investigated for that topic.

In 2008-2009 we continued with the alignment of basic skills to the topic under study. Instead of reviewing/teaching skills discretely students were able to “discover” them as part of the total investigation. Students responded well to this approach and parents were positive in their survey responses.

Junior High:

Shaker Junior High School offers a strong math program for all students. In both grades 7 and 8 the majority of students are enrolled in the regular math 7/math 8 course of study. In grade 7, approximately one third of the students

who are of higher ability and who demonstrate interest and motivation are enrolled in Math 7E, an enriched class that is geared to prepare students for acceleration in grade 8. In grades 8, 25% - 30% of the students are enrolled in Math 9R-Integrated Algebra, a high school credit bearing course which includes the completion of the Regents exam at the end of the year.

Students in both grades complete the NYS math assessments, currently administered in March each year. Those students who struggle in mathematics are afforded a variety of Academic Intervention Services, ranging from monitoring, to after school support, to inclusion in the Fundamental Math 8 program, to summer school.

High School:

The Math Department of Shaker High School offers a variety of programs to meet the needs of ability levels, learning styles, and post-secondary plans of our student body. Our aim is to provide all students with a strong foundation of math skills, to foster good thinking skills, and to promote the communication of mathematics. All students are required to earn a minimum of three math credits in order to graduate. In addition, each student must pass the Math A or Integrated Algebra 1 Regents exam to be eligible for a Regents diploma and the Math B exam (as of 2011, Geometry and Algebra 2/Trigonometry exams) to earn an Advanced Regents diploma.

Our Unified Math classes, with enrollment of ten or fewer students per class, are designed for our weakest math students and offer a great deal of individualized instruction and assistance. Depending on the needs of the students, there is often a special education aide or assistant in the class to support the math teacher. Students in the Unified program cover the Algebra 1 curriculum over two years and take the Regents examination at the completion of Unified 2. During the third and the fourth year of Unified math, students study a variety of Intermediate Algebra and consumer related topics. Focus is on the learning, application, and retention of basic math and algebra skills. The Unified 4 course is aimed at providing a solid math preparation for students who plan to enter a two-year college. Approximately 5% of Shaker students are enrolled in the Unified program.

The Integrated Regents Program (IRP) has proven to be a very effective program designed for those students whose learning style calls for hands-on activities and integrated projects with science and career and technology areas. Students come to appreciate the usefulness of mathematics as it relates to their own lives and are better able to answer the question, "When will I ever use this?" Academic support provided by our IRP interns is invaluable in building students' self confidence in math. Approximately 15% of our student body is enrolled in an IRP math class.

Our Regents level program, ranging from 9R to 12R, meets the needs of the majority of our students. In these classes, emphasis is placed on building a strong math foundation for subsequent topics and for college level material. Fundamental concepts are continually reviewed, student written and oral communication skills are fostered, and solid study habits are modeled.

Honors level courses are available for Math 10, Math 11, and Math 12. Although the majority of the students in these classes are accelerated, many move from Regents to Honors level throughout their four years at Shaker. Multiple measures of readiness for this level include final school marks, teacher recommendations, and ability to solve non-routine problems. The Honors classes are more challenging and faster paced than a Regents class and include a variety of enrichment topics. Students often complete independent work in specific math area and work in small groups with their peers.

The majority of seniors have the opportunity to enroll in college level math classes. The IRP 4 students earn up to six math credits through HVCC, and our Statistics, Topics in Advanced Mathematics, and 12R students have the option of enrolling in UHS courses through the University of Albany. Our Calculus (both AB and BC levels) students and Computer Science 3 students are enrolled in Advanced Placement courses. Overall, approximately 70% of our seniors are enrolled in a college math course each year. Data included in this evaluation show that the overwhelming majority of students enrolled in a college course are successful in earning credit. To ensure that the college courses offered continue to be appropriate, we initiate dialogue with college representations and department heads on a regular basis.

The Math Department also offers Computer Science classes that include programming in the C++ and Java languages and a one-semester class in computer applications for college level math classes. Students who are interested in pursuing college credit enroll in the AP Computer Science.

In addition to state mandated AIS for students who have failed Integrated Algebra Regents exam or who have scored below a 3 on the grade eight assessment, Shaker High School provides two proactive math labs. The first type of lab supports Math 9R students who are new to the district. Teachers help bridge the gaps in math knowledge that often exist and foster student readiness for future math courses. The second type of proactive lab supports students who are apt to struggle in the geometry topics, including proofs, of Math 10R. In addition to the math assistance received, all of the students in math labs benefit from the confidence boost of additional practice and teacher support.

The effectiveness of the Shaker High School math programs described above is primarily due to the cohesive and team oriented group of 23 teachers in our Math Department. Day in and day out, these professionals dedicate themselves to providing the highest quality of services to the students of North

Colonie. They are the strength of the Mathematics program and have received well-deserved praise and appreciation from both students and parents of our community. Teachers take full advantage of the physical layout of the teachers' room to collaborate on new curriculum, assist each other with Instructional Technology, discuss revisions and timeframe within courses, and formally and informally mentor their colleagues. The "North Colonie way" that embodies consistently high standards and a priority for student success is continually passed down from veteran teacher to first-year teacher. In order to stay current on new state curriculum, available resources, and teaching methodology, teachers attend, participate in, present at, and help organize local and state conferences.

The Shaker High School Math Department is committed to modeling and fostering of sound study habits, a variety of problem solving strategies, strong written and oral communication skills, and respectful behavior. Continued student participation in the New York State Math League contests, six per year, serves to provide healthy competition among students, along with the opportunity for them to discuss solutions to very challenging, non-routine math problems. Approximately 50 students from predominately Regents and Honors level courses participate in each contest. Our Peer Tutoring program continues to serve students in need of extra math support, while also providing an opportunity for our strongest students to step up and assist classmates. This program is a wonderful example of the willingness of Shaker students to make a positive impact on their high school community.

In our math classrooms, students continue to be challenged to think through multi-step problems, many of which are related to real world applications and experiences, and to complete this process in a structured and well-organized manner. The ability to self-question to facilitate problem solving is continually fostered. Emphasis is placed on the variety of ways to solve a specific problem and on the use of technology as a sound tool for solving problems. Teachers continually encourage students to share their solutions with them and with classmates. Students are given daily opportunities to practice team work and written and oral communication, skills they will need as they enter higher education and the workplace and as they become contributing members of their future communities.

In order to support teacher effectiveness in the classroom, this supervisor regularly observes all teachers. Pre- and post-conferencing occur to ensure articulation between teacher and supervisor about classroom management, specific areas of the curriculum, and pacing. In addition, many short, informal observations occur when the Math Supervisor visits classrooms and assists in hands-on activities, observes presentations, and offers individual help to students when appropriate. Occasionally substituting for teachers for one or two periods of the day also affords him the opportunity to familiarize himself with students' progress.

Department meetings focus on a wide range of topics including specific course curriculum, Math Club and Peer Tutoring activities, demonstrations of Instructional Technology, and discussion of new program initiatives. The physical layout of the teachers' room provides me with limitless opportunities to speak with one or more teachers about student concerns, curriculum progress, departmental assessments and review sheets, and the day-to-day progress of the Math Department. In the Math Supervisor's opinion, the large teachers' area is a tremendous asset to Shaker High School. New teachers continue to remark on the effectiveness of this layout. Course meetings are held whenever the need arises. These meetings ensure that all teachers of a specific course are "on the same page" and hear the same information. These meetings also help to coordinate planning so that all students in a particular course receive instruction that is consistent with other sections of that course. Curriculum information and the revision of assessments and timeframe are often topics for discussion. Teachers also look forward to meetings that include demonstrations of teaching methods for specific math topics.

Science

Elementary:

At the elementary level the science program has a spiraled curriculum for grades K-6. Physical, life and earth science concepts are introduced in the early grades and are built upon throughout the elementary years.

The science program is supported with a variety of resources that facilitate differentiated instruction and therefore a greater level of student understanding. Elementary Science Program (E.S.P.) kits, our Star Lab, as well as teaching guides provide opportunities for hands-on learning experiences for students at all levels. The Star Lab continues to provide a positive experience for students in astronomy units. The teaching guides for the properties of air and weather continue to be used by 5th grade teachers throughout the district. These activities are valuable and focus our students on higher-level thinking and science-based writing instruction. To bring science to life, field trips and outside presenters continue to energize the elementary science program. Scotia-Glenville Children's' Museum presentations, visits to the Herkimer Diamond Mine, Five Rivers Environmental Center, Children's Museum in Boston and the Schenectady Museum and Planetarium continue to provide wonderful opportunities for these experiences. Some schools offer enrichment opportunities through science fairs, Lego clubs and science enrichment days.

Continued emphasis on reading instruction in grades K-2 and the extension of the reading program in grades 3-6 have been useful in promoting science instruction. Bookrooms are equipped with many reading materials critical to reading in the science content area. Principals continue to be

encouraged to house science materials in a central location so that teachers are knowledgeable as to where to find these resources.

Results of state and local assessments are utilized to identify students in need of academic intervention services as well as identify curricular and instructional strengths and concerns. Students who do not achieve a level 3 or better on the NYS 4th grade Science Exam are identified for Science Monitoring. Curricular and instructional concerns are addressed through the allocation of resources to revise units of study, develop and identify additional resources to support the program, and provide professional development for staff.

Junior High:

Science at Shaker Junior High School consists of Life Science in grade 7 and Physical Science in grade 8. The Life Science course addresses the following topics during the year: cell theory, human biology, genetics, natural selection, ecology, classification and survey of major phyla of organisms. It also develops skills such as organization, inference, problem solving, observation, and measurement in the metric system. As identified by the New York State Education Department syllabus, students must also learn to properly manipulate science equipment such as microscope and triple beam balance. The Physical Science course covers the main areas of physics and chemistry. The following topics are addressed during the year: force and work, moving objects, the laws of motion, electricity and magnetism, heat, light and sound, atoms, elements, compound, mixtures, and chemical reactions. Laboratory and science class skills such as safety, graphing, measurement in the metric system, use of the computer, laboratory procedure, and working with laboratory equipment are stressed. The course is based on the NYS Education Department syllabus in science. Students will be prepared to successfully complete the NYS eighth grade science assessment at the end of the year.

For students with greater skill in science and a deeper interest, the option of taking an enriched class in grade 7, and the high school Regents Earth Science course in grade 8, offers them additional enrichment as well as a substantial challenge. A strength of both the grade 7E enriched course and the grade 8 Regents Earth Science course is maintaining a separate period of laboratory sessions. Emphasis on experimentation and inquiry, as well as the use of authentic “real life” examples and how they relate to science instruction, continue to be strengths of the science program at Shaker Junior High School.

Academic Intervention Services are also provided for students who are performing below grade level. AIS services include tutoring with the Block support person, participation in the FOCUS program and after-school help with teachers. All these approaches are effective in preparing our science students to meet state requirement for graduation at the high school level.

High School:

Far more than just understanding content, a strong foundation in science encourages the development of critical thinking, reasoning and problem solving skills while sparking interest in the physical and biological world around us. The science department at Shaker High School is committed to delivering excellence in science education based on scientific inquiry, design and understanding. Students participating in any of our diverse programs are encouraged to ask questions, think analytically and develop their own conclusions based on a combination of conceptual learning and experimental data collection.

Core Sciences

At the core of our science department are the Regents level classes. These classes contain the bulk of our students in the science program. Each course is based directly on its respective New York State Core Curriculum and therefore culminates in a New York State Regents Exam. Students typically begin with Biology in their freshman year, progress through Earth Science and Chemistry in their sophomore and junior years respectively, and finish in Physics during their senior year. All of our core courses are considered college preparatory and address the New York State Learning Standards. Regents courses meet daily for one period and cater to multiple learning styles through a combination of lecture and hands-on activities. Additionally, all Regents courses contain a separate quarter time laboratory in which students must participate. Our laboratories meet the New York State mandate of 1200 hands-on laboratory minutes which is a requisite for students to qualify to take any Regents Exam in science. Additionally, laboratories provide an excellent opportunity for students to take part in developing hypotheses, gathering data and forming reasonable conclusions based on the scientific method.

Enriched Learning

Although the core sciences offer significant challenge and certainly prepare students to be “college ready,” the science department also offers a variety of classes which cater to students who wish to challenge themselves further. Our Honors programs in Biology, Chemistry and Physics cover a greater depth and breadth of knowledge across the same subject areas as their respective Regents level courses. Due to a greater degree of content across the same time frame, students find the pace of the honors programs to be faster as well as the coursework to be more demanding. Like the respective Regents level courses, all Honors level courses are based on the New York State Core Curriculum and so they, too, culminate in a New York State Regents examination. These students also participate in our quarter time laboratories to qualify for each Regents examination.

The Advanced Placement Programs at Shaker High school represent some of the most challenging and robust curricula at Shaker. The science department maintains the largest selection of Advanced Placement classes in the building with all five College Board courses to choose from. Each course has been developed to be the equivalent of a college level course in science and therefore laboratories are built into the courses as appropriate. Our calculus based Physics courses, our Biology course and our Chemistry course are each double periods, which ensure that students are receiving the highest levels of instruction and laboratory. Our non-calculus based Physics course maintains extra periods every other day, which is twice as much as a Regents or Honors course. Finally, Advanced Placement Environmental Science offers inclusive laboratories. This allows students to experience an Advanced Placement program in science without consuming the extra time in their schedule for laboratory.

Stretched Learning

Shaker High School recognizes that different learners have different needs which enable them to achieve success. In science, we are as committed to our stretched programs as we are to our core and enriched programs. Stretched programs are designed for students who would not be as successful in our other programs due to having unique needs, requiring more attention, or being learning disabled. The science department maintains two distinct stretch programs. The Integrated Regents Program (IRP) and the Science In Our Lives Program cater to different students, but share a common goal – to equip more of our learners with the tools they need for a Regents Diploma and for life beyond our science classrooms at Shaker.

In IRP science, students are prepared for the Living Environment Regents exam in the first two years. Additionally, the laboratory requirement to take that examination is met in the same two year time frame. Although sections are smaller than our Regents Biology program, the content is the same and therefore the students are performing at a Regents level of rigor. After students complete their first two years and achieve success on the Regents exam, their last two years are dedicated to predominantly physical sciences. Depending on the career and technical area choices each student makes, they will receive a mixture of Physics, Earth Science, Chemistry, Environmental Science or Forensic Science.

Our Science in Our Lives Program is designed to meet the needs of our most challenged learners. Class sections are generally small and students benefit tremendously due to the increased amount of attention and support they receive from our teachers and teacher aides. The three year program begins in ninth grade with predominantly physical setting topics. By the end of ninth grade, the curriculum transitions neatly into biology based material. In tenth and

eleventh grade, the material is exclusively biology based leading to the Living Environment exam.

Electives

Our long term goal in the science department is to entice all students to take science during each year they are at Shaker High School. Since a fourth year of science is not required for a Regents Diploma, we have strived to maintain courses that would attract students to our programs based on special content areas. Our elective programs span a wide range of difficulty to appeal to a variety of different learners. Our Plant Science and Chemistry E programs are designed for students who have struggled previously, but wish to remain in the sciences. Both courses are hands-on and emphasis is placed on coursework rather than large assessments. For seniors who are looking for a challenge, but are intimidated by enrolling in our physics program, we offer Environmental Science and Forensics. Both courses present materials that would challenge a Regents level learner, but neither culminate in a high stakes assessment or include a separate laboratory.

Finally, our most rigorous elective, as well as potentially our most rewarding, is our Science Research Program. This is an elective that is designed to be taken concurrently with other science courses, not in lieu of them. The program begins in the sophomore year and continues through the senior year, but also includes summer work after completion of both sophomore and junior levels. Students enrolled in this program have an opportunity to earn up to 12 college credits through our University in the High School Program, which is affiliated with SUNY at Albany. Additionally, students are expected to compete with their research in a variety of local, regional and/or international science fairs in their junior and senior years.

AIS

The science department maintains three levels of Academic Intervention Services (AIS) within the program. All of our services are based on remediation of the Living Environment Regents Exam. Our least intrusive AIS service, AIS Monitoring, is done by regular classroom teachers for students who have earned a grade of 2 or lower on the New York State Grade 8 Science Assessment, but cannot be placed into a more intense AIS laboratory. Next, our AIS laboratory is a specialized class with a dedicated Biology teacher to assist students in achieving success on the Living Environment Exam. Class size is generally quite low and students meet with the teacher at least once every 4 days. Finally, the Science Supervisor picks various students in the program to work with on a one-on-one basis to help prepare for the Regents exam. This specialized service is tailored around the student's schedule and instruction is customized to accommodate specific curricular weaknesses as deemed by the Supervisor of Science.

The Science Department at Shaker is always striving to improve its ability to meet the needs of our learners. We do not offer any programs that remain static, but rather we assess, modify and update all of our programs on a continuous basis. It is through the tremendous efforts of our teachers that we are able to maintain such a rich, dynamic, and ultimately, highly successful array of courses.

Social Studies

Elementary:

At the elementary levels, the K – 6 social studies program follows a concentric model. Beginning in kindergarten, students focus on self. The perspective of our children is then expanded in grade 1 to focus on families; grade 2 focus is on community and in grade 3, world communities. Fourth grade directs study toward local history, New York State history and, specifically, the history of New York State in relation to the United States history. Fifth grade focuses on Western Hemispheric studies including the United States, Canada and Latin America. Our 6th grade students examine global history with an emphasis on key events in European History. Our direction in elementary social studies is to prepare students to apply analysis, synthesis and evaluation to social studies skills, content and material. We continue to equip our students with a solid foundation of social studies content and skills and simultaneously address New York State Learning Standards.

Social studies is an excellent venue for the teaching of study skills. Teachers use effective instructional techniques to help students develop skills for using textbooks and other works of non-fiction. Specific skills such as skimming, scanning, note taking, using graphic organizers, time management and using a planner for recording assignments are addressed in this process. Components of the reading program also support the study skills instruction. Teachers effectively use the works of non-fiction to teach the structure found in non-fiction books that, in turn, supports the development of effective study skills. Included among these study skills are using headlines and pictorial information, reading tables and graphs, examining words in bold face and other key content area reading skills. Information about the district social studies program and the studies skills curriculum is shared with new staff at the new teacher orientation each August. This session offers our new teachers an opportunity to receive an overview of the total social studies program and expectations for research and writing.

Another feature of our social studies program at the elementary level is the use of instructional technology to support social studies instruction and research. Examples of the use of technology include use of the Internet and streaming video to present information to students in an engaging manner. Students and teachers also present information utilizing interactive and multi-media technologies. Word processing programs are used to write research reports and to complete other assignments.

Our teachers strongly believe that the community outside the classroom is a valuable way for students to experience learning in the social studies firsthand. Some field trip experiences that our students routinely are involved with include trips to the Colonie Town Library and Pruyn House. Such trips are very effective for second grade, particularly in the study of local history and the community. Our 4th graders routinely make field trips to the Iroquois Indian Museum and the Erie Canal Village. Other authentic experiences include sponsored events from the Scotia Glenville and the Saratoga Children's Museums.

Students are introduced to the structure of the NYS assessment through teacher-developed constructed response questions and district-developed document-based questions and thematic essays beginning in third grade. The district-developed document-based questions were revised, in the summer of 2005 and have been implemented throughout the district. These revised DBQs are available on the district Intranet.

Students qualify for academic intervention services in social studies if they receive below a level 3 on the New York State Assessment offered in November of grade 5. Most of the challenges faced on this assessment are based in reading and writing. Therefore, the direct service offered to these students usually focuses on remediation of reading and writing needs. Additional AIS support in the content and skill areas is provided by the classroom teacher through a variety of supports, including; small group re-teaching, study guides, vocabulary review and practice, as well as additional instructional support provided by the 3- and 4-day support teachers. Specific strategies are directed toward helping students learn the content material and skills.

Junior High:

In grades 7 and 8, the main focus is the study of the history of the United States from pre-exploration to the recent past. In the 7th grade, students study the pre-Columbian period through the Civil War and Reconstruction. Post-Reconstruction through contemporary times is the principal focus of grade 8. Essential to students' success is attention to social studies skills, critical for good citizenship. Among these skills are analysis, evaluation, and synthesis of information from multiple sources. Throughout both grade levels, critical thinking skills are regular elements of instruction. Attributes to good citizenship are also

evident in the critical thinking that continually occurs in classrooms. Students concentrate on key issues and search for bias and perspective when examining source and drawing conclusions based on data. Current events of particular note are discussed, as department members believe that by making a connection to the present, past events become more meaningful. Shaker Junior High School teachers routinely make links between the role of government and the role of the citizen in a democratic society, concentrating on this relationship, as it was in evidence during the development of the United States. In addition, characteristics of good citizens are highlighted and the attributes of good citizens are stressed as they apply to smaller societies such as the school community.

High School:

The primary purpose of the Shaker High School social studies department is to help students develop reasoned and informed decision-making processes for the public good, as citizens of a culturally diverse, democratic society. Within an integrated grades 9-12 program of study that incorporates history, the social sciences, humanities, geography, sociology, political science, psychology, civics, and criminal law, scholarship is developed through a comprehensive multi-disciplinary approach.

At the high school level, the social studies program prepares students with core knowledge as well as authentic, real world skills while simultaneously addressing the New York State Learning Standards. Students in grades 9 and 10 study Global History and Geography, a two-year chronological sequence culminating in the Global History Regents examination. The focus shifts to United State History and Government in 11th grade, a course that also ends with a Regents exam.

At the 9th and 10th and 11th grade levels students have the option of enrolling in the Humanities program to fulfill their requirements. Humanities is an interdisciplinary English/Social Studies course that satisfies credit both for English and Social Studies. Curricula in the two subjects are aligned, and the teachers combine classes for joint teaching, units, and projects.

The senior blend is a two-semester required course, Participation in Government and Economics, that deepens student's historical thinking and helps students assume their role as responsible citizens and active contributors to a world that is globally diverse and interdependent.

In addition, juniors and seniors may opt to select from various electives such as Criminal Law, Perspectives in Minorities, Psychology, and War and Conflicts. While not a substitute for the core courses, the electives provide students with an opportunity to study a topic of particular interest to them in depth and to begin to establish a sequence in social science courses. Overall, social studies emphasizes and explores themes and concepts such as citizenship,

change, nationalism, culture, environment, belief systems, justice, and political systems.

The Social Studies Department engages in continual renewal and reflective practice toward instruction and curriculum revision, ensuring quality in the classroom. Content, concepts and themes, and skills form the basis for reaching and learning in the Shaker High School Social Studies Department. The coursework provides an excellent place to address key district initiatives for reading and writing. Beyond textbooks, students are exposed to a wide variety of primary and secondary sources as reading materials. Research, problem identification, and problem solving skills are incorporated as students learn to write in many different formats.

Technology has become almost second nature to instruction and now “data mining”. Teachers utilize computers and presentation devices for everything from PowerPoint to streaming video and music clips. Research tools have been expanded as digital primary sources and documents are used in the classroom. Efforts to ensure instructional practices that encourage higher level thinking are used in the classroom. Guest speakers and field trips continue to enrich the educational experiences of our students. The Social Studies Department at Shaker High School remains committed to ensuring student success through parental contact, after school help, departmental review sessions, consistent practices in essay writing, development of critical reading skills, and teachers who are concerned with sound instruction practices.

The Social Studies Department continually refines its approaches to critical reading and writing skills by imbedding sound instructional practices into the curriculum. Document based questions are utilized for more than assessment and are often incorporated as an instructional tool. Primary sources are analyzed for meaning, intent, explicit and implicit meaning, and point of view. In addition, the department maintains an array of resources for primary documents. The future of teaching with primary sources continues to grow with published document readers, document-based essay question supplements, and with digitized Internet based sources often with searchable indices, data bases, and links to additional sites. Documents and primary sources are imbedded into the Social Studies curriculum and instruction at Shaker High School on many levels. Using documents as part of traditional assessment preparation continues to evolve from the use of many different types of documents and sources as an instructional tool for developing the particular skills of historical analysis and interpretation. Recently, documents have been made more available on the Intranet as teachers develop and share their own portfolios but also as digitized resources become increasingly more available through World Wide Web and other digital formats. In addition, students are exposed to critical writing in many formats. Teachers use journals, argumentative essays, and legal briefs as writing exercises. Learning is further extended by having students “create” sources and by writing historically across various genres.

This department offers several different levels of Academic Intervention Services that provide varying degrees of remedial assistance to students. The lowest level of AIS is monitoring. Students who score a 2 or lower on the 8th grade State assessment are automatically placed in monitoring and receive increased support from their teachers throughout the school year. The highest levels of intervention are the AIS labs. Students who fail one or more Regents exams or who are in danger of failing, are scheduled into an AIS lab in place of their prep period. The labs are high intensity environments, taught by classroom teachers, and feature smaller class size focusing on content reinforcement and test taking skills. For a small number of students, the social studies supervisor also offers academic support, often involving one-on-one instruction, during a mutually convenient time for the student and the supervisor. This continuous intervention and monitoring has met with success in ensuring that students pass their Regents exams and obtain their graduation requirements.

Foreign Language

The North Colonie Foreign Language Department provides students an opportunity to experience four modern languages: French, German, Russian, and Spanish, as well as the classical language, Latin. Most importantly, our foreign language program offers all five levels in each modern language including two years of college level study. In addition, our Latin program has grown to include a post-Regents college level course.

The primary goals of the foreign language program are to ensure that students:

- communicate in languages other than English
- gain knowledge and understanding of other cultures
- develop insight into the nature of language and culture
- participate in multicultural communities at home and around the world

Language study in our district currently begins with an exploratory program at the elementary level. This program provides elementary students (grades 5 and 6) with a comparative experience in four languages and cultures, while supporting the North Colonie social studies curriculum. While studying the Western hemisphere, students in grade 5 are exposed to French and Spanish. Six graders explore German and Russian to support their study of the Eastern hemisphere. This program aims to give students a foundation for foreign language studies and helps them develop an appreciation for other societies and customs. The exploratory program also helps students to decide which language to study in later grades.

The foreign language program is aligned with the New York State Standards. Its goal is to build listening comprehension, speaking, reading, and

writing competencies while targeting proficiency outcomes which are measured by national, state, and local assessments.

The New York State Proficiency Examination which measures student proficiencies at checkpoint A, is administered at the end of grade eight. The New York State Regents Comprehensive Examination, an assessment for checkpoint B, is offered at the end of grade ten.

The program focuses on communication in a target language and provides students with a variety of strategies that encourage active participation. Cultural and communicative projects are integrated into the program in an effort to connect to other disciplines and help students speak, understand, read, and write in a language other than English.

In order to maintain the high level of instruction, foreign language teachers have been continuously engaged in ongoing professional development. In addition to conferences and workshops, both national and regional, teachers regularly participate in the departmental curriculum development activities. Curriculum guides are revised regularly to include updated curriculum outlines and appendices. Furthermore, the department maintains an electronic bank of instructional resources, FLTeach, which provides teachers with a wealth of authentic instructional materials and student assessments.

The strength of the program is evident from the results of national, state, and local assessments, as well as student achievements in various national exams and contests. Year after year, a large number French, German, Russian, Spanish, and Latin students score in the top ninety percent of the nation, become recipients of goal medals, and win scholarships to participate in various international travel study programs.

The department is also committed to providing our students with a wide variety of extracurricular opportunities. Those opportunities include a variety of multicultural events and festivals planned and organized by foreign language clubs and various activities to celebrate national foreign language month. Our exchange programs with Costa Rica, France, Germany, and Russia provide students a unique opportunity to expand their horizons and immerse themselves in the culture of the language they study in the classroom.

Art

The primary goal of the North Colonie Art Department is to help students learn to deal creatively with complexity and ambiguity and to analyze a variety of approaches to problems. We foster in students an appreciation and understanding of the various art skills and cultural contributions of the arts.

Students explore art forms as an opportunity for personal expression as well as creative problem solving. Students learn that dedication and follow through are essential to successful design solutions. Delivery of our art program at every grade level is consistent with the NYS Learning Standards for the Arts encompassing the four areas of: creating meaningful work, learning about materials and processes, critically analyzing and critiquing artwork, and understanding the value of cultural influences.

Regular observations of teachers and classroom instruction are conducted, and lesson plans are routinely collected and reviewed. At all grade levels, lesson planning and delivery incorporates art history, critical thinking, multiculturalism and exposure to a wide range of art materials, including technology applications. Instruction involves direct reference to the elements of art and the principles of design, and students engage in hands-on art projects, often interdisciplinary in nature. The department staff participate in regular curriculum development work to maintain thorough curriculum guides at each level and for each course elective.

By focusing on the importance of the process of art making, we celebrate high quality products that emerge from our students. Annually, students in the art program have opportunities to exhibit their work in an extensive amount of locations including the school hallways, the department gallery and the greater North Colonie community. The Teen Art Gallery at the William K Sanford Town Library is proud to regularly exhibit Shaker student work, as is NYSUT. Advanced high school students also participate each spring in the area's Regional Juried Student Art Exhibit, hosted at local college galleries.

Elementary:

The primary goal of the NCCS elementary art program is to assist the students in beginning to develop an appreciation for and an understanding of the various art disciplines, and to explore the art forms as an opportunity for personal expression. Students are introduced to a variety of hands-on activities and experiences that develop perceptual, creative, and motor skills.

Elementary art class also provides a time for problem solving and exploration with a wide range of art materials and tools, including the computer. Students are introduced to the artwork of the great masters and many cultures. Often, projects are integrated with grade level curricula. Caring for classroom supplies, respecting the work of others, achieving independence, and learning to communicate through art are stressed.

Elementary Art Instruction is provided for each child beginning in grade one, although certain extended day kindergarten programs also receive art instruction. Length of art class is as follows:

Grades 1&2: 45 minutes, once a week
Grades 3&4: 50 minutes, once a week
Grades 5&6: 60 minutes, once a week

We encourage parents and families to assist in their child's artistic development by creating and maintaining an exhibition space at home for children's artwork, and encouraging dialogue with your child about their creations.

Elementary Art Explorer Program:

The Art Explorers Program is an enrichment opportunity for students in grades 5 and 6. At each elementary school a select group of students are annually recognized by their art teacher for their exceptional level of skill, motivation and creativity. The Art Explorers Program consists of two offerings; an extra art session once a week at each elementary school, and an invitation to participate in two after school art class series. One series takes place in the fall, and the other session is in the spring. Students from all seven elementary schools participate in the after school workshops, and high school art students volunteer to assist.

Junior High School:

The primary goal of the art program in the junior high school is to allow students to continue to develop an appreciation for and an understanding of various art disciplines, and to continue exploring the art forms as an opportunity for personal expression.

Instruction builds on the foundation of the art curriculum in the elementary level and prepares students for high school study in art. The curriculum is built upon the elements and principles of art and design, and projects are presented in a problem-solving manner. Students learn to examine and respond critically to artwork of the great masters and various cultures. They are exposed to a wide range of art materials through a series of hands-on activities.

Art Instruction for students in junior high is for 10 weeks in both 7th and 8th grade. Accelerated Studio Art in 8th grade is a full year course, taken in addition to the student's scheduled 10 week quarter of art.

Grade 7 Art:

In seventh grade art students explore creative concepts utilizing the elements and principles of art and design. Students solve a series of art problems by using a variety of two and three-dimensional media. Computer

generated images are also examined, and art history, appreciation and criticism are emphasized. Drawing and problem solving skills are enhanced through a series of sketchbook assignments.

Grade 8 Art:

The eighth grade art program builds on a foundation of skills presented during the seventh grade curriculum. Two and three-dimensional concepts are taught as they relate to the elements and principles of art and design. Students solve a variety of problems involving sculpture, drawing, printmaking, ceramics, and computer generated art. Art appreciation and history, as well as art criticism, are part of the eighth grade curriculum. Art homework and sketchbook assignments further enhance the program.

Accelerated Studio Art:

Studio in Art is a high school course that is offered in 8th grade for students who have been recommended by their art teacher. Students enrolled in the accelerated program have the opportunity to complete a 5-unit art sequence in high school without having to sacrifice other courses, and they complete the art/music credit graduation requirement while in eighth grade. The program is offered during the school day and is geared to those students who have a strong interest in art who want to pursue an art sequence through high school. In fact, an art sequence commitment is expected for high school, beginning with Drawing in ninth grade. Students in this course have the opportunity to participate in field trips to area museums.

The Studio in Art course is an introduction to a variety of art disciplines. Although drawing is a major focus, painting, sculpture, printmaking, ceramics, advertising, and electronic media are integral parts of the curriculum. Art history and appreciation, as well as art criticism round out the program. Homework and sketchbook assignments are required, and student achievement is assessed with a final examination including a portfolio component.

Clubs:

Throughout the year the three art teachers at the junior high offer a variety of clubs to students in the areas of Ceramics, Digital Photography, General Art, and The Olympics of the Visual Arts Competition.

High School:

The art program at Shaker High School continues the goal of assisting students to develop their appreciation for and understanding of the various art disciplines and the contributions of art in our society. The course offerings include a wide range of exciting full year and half year courses, many of which can be taken a second time on an advanced level if a student scores an 85 or higher.

The department is proud to offer courses that are aligned within distinct strands of study: two-dimensional studies, three-dimensional studies, digital art studies and art history studies. Elective programs of study at the high school level include: Drawing, Acrylic and Watercolor Painting, Ceramics, Sculpture, Jewelry and Stained Glass Design, Drawing for Cartooning and Animation, Cinematography, Advertising Design, Computer Graphics, Art History, and advanced courses in Fine Arts Studio, Art History, and Digital Arts.

The high school course that fulfills the graduation requirement and is the foundation course for practically all other art electives is Studio Art, in which students develop their skills in a variety of media and hands-on applications, as well as learn art history, art criticism, and strategies for personal expression. Many students complete Studio Art and go on to take other electives and build on their experience. For many, their exposure to art education ends with Studio in Art. Therefore, the foundation we provide students in Studio Art is very sound and incorporates the following:

- Critical Thinking Strategies
- Analysis and Interpretation of Art
- Creative Problem Solving
- Cultural and Historical Connections
- Interdisciplinary Connections
- Language acquisition of the vocabulary of art and design
- Skill development in a variety of media
- Career exploration and programs of college study

In the high school art department, a number of advanced level art courses may be taken for college level credit at area schools, and field trips to metropolitan museums of art are part of the advanced fine art courses. The department staff annually arranges to bring visiting artists, alumni, and college representatives into the classrooms, who provide an overview of career opportunities in the arts as well as portfolio development strategies. The high school art students prepare artwork for several high quality exhibits throughout the year.

Clubs:

Art teachers advise a variety of art clubs at the high school. Our Figure Drawing Club helps prepare students with observational proportion drawing experience from the human figure. Colleges look for these types of skills in student portfolios. Several students and department staff also attend open figure drawing classes offered at Sage College at Albany. Other after school club offerings include: ceramics and sculpture, cinematography, and jewelry.

Health

The primary purpose of the Health Education program is to help students gain the skills, knowledge and attitudes necessary to remain safe and healthy throughout their lives. Health Education at North Colonie Central Schools is skills-based. Students learn and practice essential skills in the context of real-life health related situations that are relevant to adolescents. The objective is for students to be able to apply these skills when faced with issues that impact their health now and in the future. In addition, Health Education provides opportunities for students to read, write, and compute in the context of real-life situations. Health Education at North Colonie Central Schools is taught throughout grades K-6; grade 7 for 10 weeks; grade 8 for 10 weeks; grade 10 for 20 weeks.

Elementary:

The Health Education curriculum is implemented at this level by various professionals. These professionals include the K-6 health teacher, classroom teachers, school counselors, and DARE officers. Health topics for grades K-3 include physical health (nutrition & dental health), substance abuse prevention (self-esteem, decision making, conflict resolution, goal setting, and consequences for behavior), safety, and disease prevention. Health topics for grades 4-6 include safety, health promotion, lifestyle habits, internet safety, personal and social responsibility (respectful behavior, conflict resolution, anti-bullying, sexual harassment, and advocacy), planning and goal setting, effective communication, adolescent growth and development, and HIV/AIDS. At all levels, instruction is focused around Health Education skills. Additionally, all levels experience technology enhanced lessons.

The HIV/AIDS curriculum is primarily taught by the K-6 Health Teacher, with few lessons being taught by the classroom teachers. This curriculum, along with all other Health Education lessons are taught with a lens of reinforcing respectful behavior and strengthening diversity and tolerance. The Pumsy and Kelso programs, which are facilitated by school counselors, deal with topics concerning social and emotional health education. DARE Officers are most

prominent in fifth grade, as students complete the DARE program. DARE Officers may also visit primary classrooms to discuss safety issues and intermediate classrooms upon teacher requests. Intermediate level students develop an individual health plan at the beginning of the school year. The plans are reviewed mid-year and assessed for accomplishment at the end of the school year.

Fifth and sixth graders are provided the opportunity to participate in a three day Adolescent Growth and Development unit. Prior to the unit the K-6 Health Teacher and the Supervisor of Health Education and Health Services present an informational preview to the parents explaining the voluntary and the NYS mandated lessons regarding HIV/AIDS.

Junior High School:

At Shaker Junior High School, our goal is to provide a comprehensive skill-based curriculum that engages the learner in the process of discovering current information and critically analyzing it. The focus is on getting our students to use information in a way that shows them to make better choices in certain social systems. This process of decision is a critical component in promoting one's long term good health. Our seventh grade and eighth grade health program presents instruction in 10-week blocks. Our Junior High School instruction includes dimensions of wellness, self-management (self-image, stress management, personal safety and goal setting and planning), communication (types, styles, refusal skills and conflict resolution strategies), decision making, HIV/AIDS awareness and adolescent changes and challenges. Instruction in HIV/AIDS and adolescent changes and challenges include lessons on the nature, transmission and prevention of the disease, stressing abstinence as the most effective protection against HIV infection. Prior to the adolescent changes and the HIV/AIDS lessons the Junior High School Health Teachers and the Supervisor of Health Education and Health Services present an informational preview to the parents explaining the voluntary and the NYS mandated lessons regarding these lessons .

High School:

Health is a condition of well-being that is required for the development of each individual and for society as a whole. Optimal health is dependent upon knowledge, attitude and behavior. The health courses offered at the High School are based upon New York State and North Colonie Curricula and have been approved by the Board of Education. The curriculum focuses on seven skill

areas: planning and goal setting, decision making, communication, stress management, self management, relationship management and advocacy. Topics are presented in connection to a specific skill area. The instructional focus is on promoting abstinence and to provide accurate, age appropriate information to support student's ability to make informed decisions, to problem solve, to be safe and to achieve a high level of wellness.

Health is offered during the sophomore year and students are required to pass this course in order to graduate. Students entering Shaker High School in grade twelve will be required to take Health unless the requirement was fulfilled in a previous school.

A choice is made to take either Health 901 or Health 902. Health 902 will only be offered if there is sufficient enrollment in the course. A summary of topics is listed below:

901 Health:

In this course topics include communication, characteristics of healthy and unhealthy relationships, nutrition, fitness, stress management, coping with loss, depression, addiction, alcohol, tobacco and other drugs, personal safety, abstinence, contraception use and rates of effectiveness/ineffectiveness, sexually transmitted diseases, and the HIV/AIDS curriculum which includes prevention lessons.

902 Health:

This course includes the topics covered in Health 901 except for contraception use and rates of effectiveness/ineffectiveness and the prevention lessons on HIV/AIDS.

During the second semester of ninth grade, the High School Health Teachers and the Supervisor of Health Education and Health Services present an informational preview to the parents explaining the voluntary and the NYS mandated lessons regarding the 901 and 902 courses.

Music

The primary goal of the North Colonie music department is to promote within students an appreciation and a basic understanding of music in various forms as an opportunity for personal expression. Students are exposed to various styles of music, acquisition of knowledge about the elements of music, and the development of listening, analytical and performance skills. The music

program in North Colonie promotes the goals and objectives of the New York State Standards for the Arts.

Elementary:

Elementary students are instructed in six conceptual areas of music: rhythm, tempo, melody, texture, timbre, and form. Students develop a steady beat and its division in kindergarten, and build into more advanced rhythmic concepts as rests, meter signatures, sixteenth notes and syncopation by sixth grade. Tempo begins as fast and slow designations for the youngest students and delves into some of the Italian musical terms such as *Allegro*, *Andante*, and *Lento* in the older grades.

Students sing a variety of melodies, from American folksongs to melodies from the traditions of many world cultures. They learn pitches through solfege symbols and hand signs, and identify major and minor tonalities.

Texture is explored through the use of Orff instruments. Students accompany their own performances and distinguish thin and thick textures. They learn to identify terms and concepts such as bourdon, monophonic, homophonic, chord progressions and a cappella.

Students learn timbre through the use of different voices: whispering, speaking, singing, calling. Students learn about instrument families and to identify the instruments in a symphony orchestra. Fourth and sixth grade students create compositions using found sounds from their own environment.

The musical concept of form is used through each grade level, and students learn to identify some of the different forms a piece of music can have. They learn terms associated with following a page of music.

Elementary students explore these musical concepts through a wide variety of activities. Children sing, dance, speak, listen, play Orff instruments and recorder, write, compose, read, use technology and improvise regularly. Approximately 97% of the children are successful in learning the musical concepts.

The elementary music staff works with many grade-level plays throughout the district. Sixth-grade plays are highly attended and very successful. These experiences showcase not only the students' musical and performance skills, but also the dedication, hard work and cooperation that are a large part of the learning experience.

North Colonie fifth and sixth grade students participate annually in the Saratoga Performing Arts Center's Class Action program. Fifth grade students

watch a demonstration by professional ballet dancers and learn about the ballet as an art form and the specific program in general music class. They are then offered free tickets to attend a performance of the New York City Ballet at SPAC in July. Sixth grade students are presented with a demonstration by a musician from the Philadelphia Orchestra and learn about an orchestral program in general music class. The students are then offered free tickets to see a performance of the Philadelphia Orchestra at SPAC in August.

Singing is one the focal points of the elementary general music curriculum. The quality of vocal music in the North Colonie elementary schools far exceeds the expectations of the New York State Standards, and is one of the reasons for the high quality of vocal performance at the junior high school and high school levels as well. Students begin a formalized choral experience in fourth grade, using one or two-part singing, following a conductor, vocalizing with proper technique, reading music notation in sheet music, and performing in a spring concert setting. They learn to work together to achieve a beautiful sound and musical expression.

Fifth and sixth grade students meet as a grade level chorus for 30 minutes once each week. Students sing in two parts and memorize all of their selections. They perform music from different cultures and sometimes in different languages. Some selections include student accompaniments on Orff instruments.

In the fourth grade, students in North Colonie have the opportunity to begin a band or orchestra instrument. The children study their instruments in small group lessons for thirty minutes once each week. As the children progress, they begin rehearsing as a band or orchestra, usually in February of fourth grade. These ensembles perform within their elementary schools on a concert in the spring.

Fifth and sixth grade students rehearse together once a week as a band or orchestra, and perform with the chorus on two evening concerts, in the winter and spring. Advanced music students in the upper elementary grades have opportunities to participate in outside performances and music festivals such as the NYSSMA Solo and Ensemble Festival and the Suburban Scholastic Council Music Festival.

Junior High:

Junior high school students are given opportunities to experience music through their general music classes. They can also participate in the many performing groups offered at Shaker Junior High School.

Seventh grade general music is divided into units. In the two instrument units, students learn skills to perform simple melodies and accompaniments on acoustic guitars and keyboards. In the Jazz unit, students listen to and identify

jazz artists and styles. Students also complete projects using technology equipment available in the classroom and computer labs, and are given the opportunity to compose and perform original music.

Eighth grade students develop an understanding and appreciation of the elements and various styles of music, with particular focus on Rock-n-Roll. In this unit, the children study lessons in music history, identify styles and performers through listening exercises, and complete technology projects. The eighth-grade keyboard and guitar instrument units allow the students the opportunity to perform at a more advanced level, and are assessed through performing individually, in small groups, and as a class.

Ninety-nine percent of students are successful in achieving a passing grade in junior high school general music.

Shaker Junior High School's performing groups include 7th grade and 8th grade bands, orchestras and choruses. Each ensemble meets every other day for a class period. Music students may also choose to audition for participation in one of the after-school ensembles such as the Select Chorus, Treble Makers (girls' chorus), Jazz Ensemble, Select Band, Scherzo! (a string ensemble) or Syncopella (a grade 7-12 male vocal ensemble). Advanced music students have opportunities to participate in outside performances and music festivals such as the NYSSMA Solo and Ensemble Festival and the Suburban Scholastic Council Music Festival.

High School:

Shaker High School performing groups include Chorus, Orchestra, Symphonic Band, World Percussion and Wind Ensemble. Performing group students are given both traditional and performance-based assessments. They perform in class as a group and in small sections, and perform individually most often in their small group lessons. Students attend weekly lessons that serve to strengthen technical skills and improve upon their understanding and performance of the music. They complete written work on musical terms and concepts. Advanced music students have opportunities to participate in outside performances and music festivals such as the NYSSMA Solo and Ensemble Festival, Area All-State Festival and All-State Festival, NYSBDA Honor ensembles, the Suburban Scholastic Council Music Festival and numerous music organizations and performances in the larger community.

World Percussion is a performing group made up entirely of percussionists. Students explore traditional percussion ensemble literature as well as music from African, South American and Caribbean cultures. It also serves to provide the high number of percussionists in the high school with adequate performance experience, as there are a limited number of instrument parts available in the band.

Mid-term exams in each ensemble are performance-based. Students are assessed based on criteria used by the New York State School Music Association in its solo evaluations, including tone, technique, rhythm, intonation, articulation and expression. Students prepare the piece in advance and perform individually.

Students taking Music Theory I study elements of music: duration, pitch, timbre and intensity. Music Theory II continues a more advanced study of music, including an introduction to four-part writing and harmonic analysis. Music Theory III and IV include an in-depth study of music at a level of many college courses, including modulation, transposition, secondary dominant chords, figured bass and aural training. Students are given the opportunity to take the Advanced Placement test in Music Theory.

Music in Our Lives I and II explore topics such as Rhythm and Percussion, Notation, the life of Mozart, and Popular music through the late 20th century. Historical Perspectives of Music gives students a basic overview of music history, and is offered as a one-semester elective.

After-school music groups at Shaker High School include Jazz Ensemble, Jazz Band, Shaker Select (chorus), SSAA Chorus (girls), Pep Band, Marching Band and Chamber Strings. Students also have the opportunity, if they meet the prerequisite grade requirements, to apply for membership in the Tri-M Music Honor Society.

District:

The North Colonie Music Department collaborates with the Art Department to celebrate May as “Music and Art for Youth Month,” introduced annually by a Board of Education proclamation. Concerts are held throughout the month of May, and the kick-off event is the District Art Exhibit traditionally held at NYSUT. The Art Exhibit includes a performance by the SJHS Jazz Ensemble. Shaker High School holds winter and spring Art/Music Festivals, which include art shows in the gallery followed by a concert in the auditorium.

Parental support of the music program is evidenced by their attendance at numerous concerts and musicals throughout the year, and through their support of and participation in the North Colonie Friends of Music. The District Music Supervisor often receives compliments from parents on the high quality of performances in the concerts and the dedication of the music teachers. Parents enroll their children in private lessons and outside music camps and advanced study programs such as the Music Studio, the Crane Youth Music program, the New York State Summer School of the Arts and jazz programs at SUNY Purchase. Parents invest in quality instruments for their older children.

One of the great strengths of the North Colonie music program is an excellent, dedicated staff. Music teachers work diligently at each level to give the students the best music education possible. They build strong collegial relationships with each other and offer assistance as much as possible. Teachers share ideas about curriculum and supplies, perform for each other's productions and attend each other's performances regularly. The support of the Board of Education, administration and community is another important strength and helps to foster an atmosphere of excellence for the entire music program.

Physical Education

The mission of Physical Education is to empower all students to establish and sustain a lifelong pattern of regular physical activity. How a student perceives and values physical activity becomes critical if physical education is to become a personal resource for leading a healthy, productive, and self-fulfilling life. Physical Education is a sequential educational program based on physical activities undertaken in an active, caring, and supportive atmosphere in which every student is challenged. While participating in class, students learn to develop physical and mental discipline, cooperation and collaboration, leadership, respect, and problem-solving skills.

Elementary:

In the elementary level, students participate in 30-minute classes twice a week in kindergarten and four times a week in grades 1-6. In the primary grades, the main focus is on developing basic motor skills, manipulative skills, and physical fitness. A wide variety of activities and games are used at all levels to help the students learn to follow rules and have fun. As students advance into the intermediate grades, more cooperative activities and modified games are introduced. Also available to the intermediate students are the popular before or after school intramural programs where students participate in a wide variety of activities.

The Physical Education Department hosts two very popular annual events. The fall Cross-Country Races include boys and girls in grade 4-6 who compete in six different one-mile races. Over 600 students compete in these races after school at the Colonie Town Park. In the spring, we hold the District Track Meet for all 5th and 6th graders at the Shaker High School track; this annual event began in 1953.

Junior High:

At the Junior High, the 7th and 8th graders participate in class on alternating days throughout the entire school year. The students focus on many different individual and team activities where they learn and practice more advanced skills and strategies. Junior high school physical education activities include the following: fitness testing, football,

soccer, field hockey, cross-country running, circuit training, team handball, basketball, volleyball, floor hockey, badminton, gymnastics, wrestling, lacrosse, tennis, golf, softball, track and field, cooperative games, base games.

High School:

At Shaker High, students successfully complete four years of physical education to graduate, and they do so by participating in class on alternating days. In 9th grade, students receive instruction in a wide variety of activities ranging from soccer to project adventure and basketball to swimming through an established curriculum. In grades 10-12, students will select courses for each semester. Examples of these courses include groupings of activities such as – team sports/fitness, NET sports/fitness, lifetime sports/fitness. We also offer an off-campus bowling/golf option. We also offer a full semester course in lifeguarding where students can become fully certified lifeguards through the American Red Cross program.

The President's Challenge Physical Fitness Test is administered annually to students beginning in the fourth grade. This testing program is offered by the President's Council on Physical Fitness and Sports in cooperation with the American Alliance for Health, Physical Education and Dance. This test provides our students with a comparative assessment to same age and gender students on a national level.

For any students unable to participate in the regular physical education class, we provide adaptive physical education. This modified program is provided for students with chronic disabling conditions, those recuperating from injuries, or those convalescing from long and short-term illnesses.

Career and Technical Education

The focus of the Career and Technical Education Program is to provide students an opportunity to explore their vocational interests and gain critical employment skills. CTE course work is designed to highlight the correlation between academic content and pragmatic application to further enhance the relevance of the content central to K-12 instruction. By assisting students to identify and explore their aptitudes and interests, Career and Technical Education programming empowers students to make informed decisions regarding their future careers and the application of their K-12 education post high school.

The program consists of five content specific departments including the Home and Careers and Technology Education at the Junior High School and Business and Marketing Education, Family and Consumer Science Education, and Technology Education at the High School. While content independent, these

departments interact and cooperate to provide students with a broad range of career pathway instruction and exploration. Likewise, the Career and Technical Education staff meet together and collaborate to insure career education goals are being met and quality career instruction is being provided. Many of the careers students pursue do not fall neatly into Business, FACS, or Technology instruction. Often it is a combination of skills and content from these and academic courses that constitute a student's knowledge base and skill set required as s/he enter post secondary study or a vocation.

It is recognized that academic disciplines should not function as individual silos from which students extract information and are left to determine how it interconnects and how it is to be applied. This approach has resulted in a large number of high school graduates who are well educated, possessing significant amounts of factual knowledge, but with little comprehension of how to put it to use. There is often no clear career direction on the part of the student and no formal effort at aligning their interest and aptitude with promising career fields and opportunities. This summarizes the department's challenge, to provide students with opportunities to explore their career interests both through dedicated career based courses and content integration and application in the core academic courses.

Business Education

The Business Education Department at Shaker High School provides students with a wide variety of course work designed to prepare students with the skills and insight required for success in the competitive global economy. Course options vary from introductory skills, such as keyboarding and desktop publishing, to more advanced application skills, including accounting and business law. The department currently offers students a total of seven courses which are part of the University in the High School Program. Students who enroll in the college credit option within these seven courses are eligible to receive three college credits per course for successful completion. The courses are offered through a variety of colleges including Hudson Valley Community College, Schenectady County Community College, and SUNY Albany. In addition, our program offers students an opportunity to create and run a business through our Junior Achievement affiliation. Business owners from the community work closely with the students as they form their company, produce, promote, and sell their product, and assist them in evaluating the company's performance. This is an excellent experience that launches many of our future entrepreneurs and business professionals onto their careers.

Students are also provided an opportunity to experience firsthand the career area that they are considering through the Career Exploration and Internship Program. This program allows approximately 100 students to complete 54 hours of internship on an actual job site in the career fields of their choice. It

also provides an extensive network of businesses and community partners which contribute to enriching our school's program in a variety of ways.

Family and Consumer Science

The Family and Consumer Sciences education program provides content that prepares students to be competent, confident, and caring in managing their personal, professional, and family lives. Course work is provided in five career pathways including education/social work/psychology, nutrition/medicine/nursing/therapy, culinary arts, interior design/clothing design/fashion merchandising, and pre-vocational skills. Courses provide students with relevant content supported by hands-on learning activities that reflect the real world application of the skills and content being studied.

Technology Education

Technology education is defined as the study of how humans apply knowledge to practical purposes. The Technology Education program in North Colonie serves approximately 2,000 students in grades seven through twelve each year. Students begin formal technology instruction in grades seven and eight with the New York State mandated unit of study. Students receive an overview of how technology is used to solve social and environmental challenges. Topics include the history of technology, the future of technology, and the use of a systems approach to solve problems.

At the high school, technology education is provided for students on an elective basis as part of a comprehensive Career and Technical Education program. Students with career interests ranging from pre-vocational, those entering work directly from high school, to students pursuing post secondary degrees in fields such as CAD, CAM, graphic design, electrical, construction, broadcast media, architecture, and a variety of engineering disciplines. Courses are offered in both half-year and full-year formats and allow students to select the series of courses that best prepare them to make an informed career/college decision and to be well prepared for post secondary study.

Special Education

Pupil Services has a wide range of programs and services to support students. The commitment by the members of this department in fostering student success is outstanding. Each student is provided with a program and

services that address their specific needs and that are based upon their Individual Education Plan. The collaboration and communication between the special education teachers, regular education staff and administration has allowed each student to have a comprehensive, supportive program and learning environment that enables students to succeed. In addition to their commitment to student success, the professionals consistently demonstrate a flexibility and willingness to go well beyond what is required to assist students. Students at the high school level express their appreciation for the insight provided to them through their participation in the Hudson Valley Community College field trip, as they learned about many of the aspects they will need to consider as they transition into the post-secondary level of their education.

The special education teachers value working collaboratively with the regular education staff and administration to foster and support a learning environment that enables students to succeed. Frequent communication continues to be the key ingredient in order to insure that the students' programs are appropriate and the necessary accommodations are in place. Regular education staff and administration turn to the special education teachers and therapists for insights into specific strategies to deal with both academic and behavioral concerns and have expressed their appreciation for the Pupil Services staff flexibility and willingness to assist in whatever way possible to support the student, staff and administration. This support included pushing into classes, self-containing students when appropriate, developing behavior modification plans, and attendance at meetings to discuss student progress and/or concerns.

Parents of students receiving support services through Pupil Services have expressed their continued appreciation and support of the various services and programs provided by our District. The parents of children in the two ASC classrooms at Southgate School are appreciative of the unique programs and instructional strategies in these language concepts classrooms, which has consisted of employing Applied Verbal Behavior strategies and Relationship Development Intervention. Parent feedback has consistently demonstrated that our wide range of programs continue to meet their child's unique needs whether it be through the high school Academic Skills Programs with their community job site placements, the Integrated Kindergarten Program, learning resource and consultant teacher supports, speech therapists, occupational and physical therapists, or our alternative program at Goodrich School. Their feedback has been overwhelmingly positive with regard to home/school communication and flexibility in programming. Students receive guidance on strategies to expand on their areas of strength and identify their areas of weakness. Students' Individualized Education Plans and placements are well thought out and appropriate to facilitate their child's academic/emotional/social needs. Parents continue to be appreciative of the care their children receive as well as the trust they have developed with the Pupil Services personnel who work with their children.

Learning Enrichment Program

The Learning Enrichment Program focuses on the skills needed to enhance the achievement of the academically talented students at grades 1-6 designated Gifted/Talented by the Pupil Services Teams. They develop ability to think critically and creatively, research in a variety of disciplines and communicate the results to an audience of the evaluation and synthesis of information produced to an audience.

The curriculum is delivered in a trimester approach. Our goal is to help students look at problems and information from many different perspectives and to devise optional solutions, for any given situation. We stress critical and creative thinking using a broad spectrum of subjects. We encourage students to question and we require them and ourselves to substantiate any stated opinions.

The objectives of the program follow:

1. Ensure acquisition of higher level thinking strategies. Require students to select from a repertoire of strategies, and test most appropriate ones for complex subject matter.
2. Explore subject matter in some depth, which either expands topics taught in the classroom or fields of knowledge new to them.
3. Extend the skills of evaluation of information for relevance and authenticity including that found on the internet. The value of using primary sources and technology is stressed.
4. Expand and enrich students' vocabulary generated by their particular projects and including the study of word derivations, word roots, prefixes and suffixes and word relationships.
5. Effectively communicate knowledge learned or produced by doing presentations to peers and adult audiences.

We are able to achieve these objectives utilizing a specially created curriculum delivered in a trimester plan. Early in the year all students are involved with challenging activities that present them with logic skills, techniques for problem solving and vocabulary enhancement from multiple subject disciplines. Fourth graders begin reading "Around the World in Eighty Days"; fifth graders have a Revolutionary War mini-unit in which they examine the background and effectiveness of a series of well-known slogans or "battle cries."

Sixth grade students study and practice leadership and effective decision making.

Next, the primary students practiced observation and deduction skills to solve a mystery and then studied the lives and work of some well-known inventors and their inventions. Using these models they tried their hand at inventing. The study of economics was the focus for 4th grade, the reflection on The Revolutionary War period occurred at grade 5 and 6th graders learned how to debate and prepared for an inter-school debate. All grades shared the result of their research at a student fair.

Near the end of the year all students engaged in simulations: zoological organizational operations (4th grade), Creative, Logical, Effective Problem Solvers in grade 5, and a pharmaceutical archeological dig and research (6th grade).

At grade 5, students worked in teams (small groups) on a newly developed simulation. They were required to hone their observational, organizational, analytical and accurate record keeping skills. Then, through a series of simulated investigations, they learned data collection and recording.

Library/AV Services

We believe the school library media specialist has an obligation to provide students with easy access to a discriminating collection of fiction and non-fiction resources which will encourage them to be life long readers and learners. Further the library media specialist introduces them to the best of literature so that they develop an appreciation for our literary heritage, an ability to respond to various genres and themes and begin to develop personal patterns of regular reading for recreation and information. The school library-media specialist has a unique opportunity to foster the love of reading.

Elementary:

The first grade program places heavy emphasis on encouraging children to read, to love books and to acquire simple concepts of library use. We promote reading through various activities such as book talks about the best of classic and current children's literature, discussion of stories read by and shared by students, displays of new books, promotion of "I Can Read" books, distribution of reading lists, story time where books are read aloud to students, presentation of each year's award winning books, special promotions such as book fairs and author visits in cooperation with the PTA and units to acquaint first graders with some outstanding authors and illustrators.

We also support classroom instruction with resources sent either to the classroom or displayed in the library.

By the third grade we continue to encourage children to read. We promote reading through various activities such as book talks about the best of classics and current children's literature, discussions of books read by and shared by students, displays of new books, distribution of reading lists, presentation of each year's award winning books, special promotions such as book fairs and author visits in cooperation with the PTA. We also continue to read to the children, often using "chapter" books.

We encourage children to exchange books as soon as they have finished them; we do not restrict that activity to the once a week formal visit to the library. When children are searching for books they want to take out, we offer guidance. By third grade we work on the differences between reading for fun and reading for information and the importance of each. We also help each child to be increasingly selective in making reading choices.

More structured approaches to excellence in literature are begun. We discuss styles of the best of children's book illustrators. The comparison of versions of a familiar tale from one country to another is a popular activity. Introductions to fables, folklore, tall tales, poetry and subject related literature are made.

Beginning research skills are taught in collaboration with the classroom teacher. Students learn about the use of reference materials and increasingly show an interest in using those titles found on the library computers. They are introduced to periodicals for pleasure reading and to find current information. The concept of bibliographies is presented as they learn the importance of keeping a list of materials where information was found.

At the intermediate grades the library program has three well-defined components: literature, computer literacy and research skills.

Students in grades 4-6 are presented with a computer literacy program taught by the librarians. They learn about the history of the computer and briefly about potential for the future. Ethical issues receive major emphasis at all grade levels. Responsible and safe use of the Internet – copyright and plagiarism issues, personal safety and security and the acceptable use of Technology outlined in the District policy receive much attention.

Use of computers for research is combined with the library research curriculum. Students learn to make good choices about when to use CD-ROM software, a print source or search the Internet. They learn how to search online using available search engines and they learn to evaluate web sites for currency, accuracy/authenticity and relevance for their needs. All of these skills are

reinforced in their research projects. Students are also taught about the ethics of computer use and the importance of personal safety when using the Internet.

We teach library/research skills by taking a collaborative approach with classroom teachers; the classroom teacher and librarian plan and teach together. The classroom teacher identifies the curriculum objectives and based on that the librarian introduces the skills needed by the student to complete a given research assignment successfully.

Students learn to find information in print, non-print and electronic resources in the library and learn to access information found outside the library. The emphasis is on locating, evaluating and using information for specific purposes. To do that the students learn to develop a search plan and construct a bibliography which shows where the information was found.

Junior High:

At Shaker Junior High School many of these collaborative efforts are interdisciplinary. Students are taught the use of relevant reference materials – specific to the assignment - print, non-print and electronic located in the library and electronic access to sources outside the library including online searching for information. Considerable individual assistance and supervision is provided.

The librarians also maintain a mutually cooperative effort with the town library. Major assignments are made known to the public library staff because many of our students also use that library. We also support the use of interlibrary loan procedures utilizing materials from other libraries in our school district and other library systems.

As part of the audio/visual and photography services, librarians support the classroom teachers' needs and assist with students' classroom projects. A library classroom, computer lab and video production studio are available.

Computer workstations in the library are available for all students.

High School:

At Shaker High School most English and social studies teachers and several other subject area teachers bring their classes to the media center over a period of days so that students may engage in research. The librarian will teach or review the skills that students need to complete the research assignment successfully and will provide reference assistance for the duration of the assignment. The teacher, who has worked in advance with the librarian, will

remain with the class for supervision and assistance.

Students may use the online catalog to locate books at Shaker High School or elsewhere in the district or in other local public and college libraries. We make extensive use of an interlibrary loan procedure. They may also use the 200+ magazines and newspapers housed in the media center or the full text articles found on-line.

The library computers are equipped with online databases for research use and also serve as student walk-in stations. All of them also serve as book catalog access stations. Internet use is available in the media center, the labs and some classrooms. There is a well-defined school district procedure which must be observed.

Students are increasingly using our TV studios to develop video documentaries as part of class assignments.

Our audio/visual/technology services are diverse types of support for teachers and administrators and offered with two staff – an in-house repair/maintenance technician and an audio/visual – video technology expert. The repair/maintenance technician keeps district equipment such as projection devices, television, audio devices, computers and printers and the like in functioning condition.

The multi-media specialist works with staff to develop video, PowerPoint and other programs; does all district photography and videotaping; works directly with students and teachers, gr 1-12, to produce video documentaries in the TV studio, produces high school student I.D. badges and library cards, equipment set-ups during the day, evening hours and weekends and any requests for like services.

Central processing services are those required for the receipt, inventory and processing of all library resources for use. This would include cataloging and bar coding of books and non-print items and preparation of equipment for circulation and use. Preparation of machine-readable records for the circulation and inventory of district resources is also accomplished. Lamination of large items for classroom use is in heavy demand from throughout the district.

Instructional/Information Technology

The North Colonie Instructional Technology Program continued to experience growth and development in 2008-2009. The program and department strengthened support in the four key areas that were brought together during 2006-07: instructional technology and professional development; administrative

technology and database analysis and support; network support for the wide area network, Internet, building-based networks and the corresponding servers; and, direct helpdesk support for each building, including three on-site technicians.

The inclusion of the function and office of the Central Registrar in the department has continued to be productive as we continued to streamline registration procedures and to increase the accuracy of student and parent information for all students, including private and parochial schools and pre-school services.

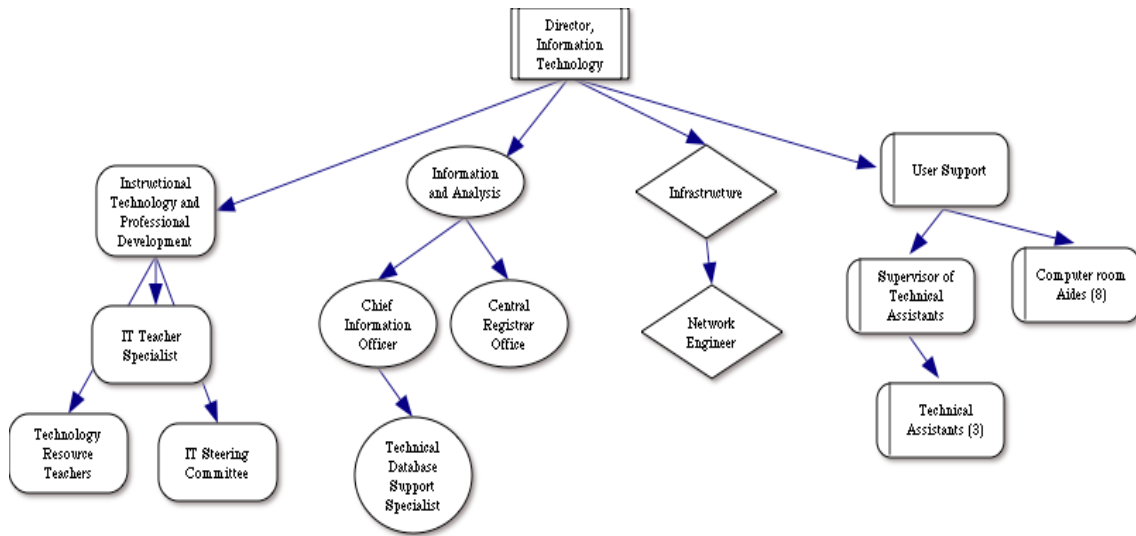
The helpdesk support function was enhanced by changing the reporting and communication structure of the computer room aides to the through the Director of Information Technology.

The determination of technology need was enhanced through the first year of implementation of the replacement and upgrade cycle for both hardware and software. In this cycle 25% of these resources to be upgraded during each budget year. The Instructional Technology Steering Committee worked to survey of building-based needs to create a budget and implementation plan for equipment.

Each of the four areas continues to have its own structure and objectives:

- Instructional Technology

With the completion of the technology plan update, the key focus for the instructional technology and professional development area is the implementation of that plan. There are three overall objectives within the plan: ensuring that students meet the national and NCCS technology literacy standards; ensuring that teachers have the right training and resources to effectively integrate technology within their classroom practice; and, bringing newer technologies to our classrooms to support student learning and growth.



- Administrative Software and Data Analysis

The successful implementation of the student management system makes it possible to add functionality to that system, and to provide additional analysis tools for administrators and teachers beyond paper reports. The inclusion of the central registration function strengthens the accuracy of the student data input, including private and parochial school data.

Additional administrative application tools include a new emergency messaging system, new data sharing with the transportation department, and new reporting functions through a data warehouse server.

- User Support

The increased use of the helpdesk support software will provide needed information for the consistent deployment of new hardware, software and direct help to teachers. The computer lab aides have been folded into the helpdesk process with success.

- Network Engineering

The overall goal for this area is the maintenance and upgrade of the wide area and local area networks within and across buildings. This has included the implementation of a managed wireless system, additional backup and storage capabilities, and a review and replacement schedule for network equipment.

Guidance

The primary goal of the K-12 guidance program is to provide educational, vocational and personal counseling services so that the student might derive maximum benefit from his or her educational experience.

Elementary:

Elementary guidance counselors greatly impact the school by assisting all members of the school community, such as students, parents, teachers and principals. They provide individual, group and classroom support, which contribute to the development of positive character traits in children. The developmental guidance curriculum is taught at each grade level from Kindergarten through grade six. In the kindergarten to grade three classrooms, counselors focus on lessons taught from ten to twelve weeks on the topics of building social skills, increasing self-esteem, developing friendships, and making good decisions. Beginning at grade four strategies are taught about conflict resolution, improving decision making skills, and recognizing bullying and harassment. Students are taught to recognize situations that are not respectful of others and to support those students who may be harassed. These lessons are conducted from six to ten weeks. Beginning in the 2006-2007 school year, each elementary school had a full-time counselor.

Counselors provide individual and group counseling sessions to students in all grade levels. Students are counseled on a wide range of issues, such as, conflict resolution, self-confidence, friendship, assertiveness, bullying/harassment, LEP, and organization/study skills. One-third of a counselor's week is devoted to providing services specifically to students in the Learning Enrichment Program.

Elementary counselors are highly visible members of the school community and participate in many building activities, such as the Child Study Team, Pupil Services Team, Building Council, Wellness Committee, Crisis Response Team, School Success Team, and Character Education. Counselors assist in developing intervention plans for students in crisis and oftentimes serve as a liaison with parents.

The department arranges evening presentations for parents on topics concerning parenting issues. Counselors comprehend the importance of educating parents about the current issues that may be of interest to them in parenting their children.

Students are observed by teachers and principals as enthusiastic about participating in the classroom guidance lessons, motivated to work on issues during counseling sessions, and seeking out the counselors to share events in their daily lives. Counselors make strong connections with students since they

identify that a counselor supports them. Through the classroom instruction and consultation, teachers are able to learn strategies to provide for students who are in need of an intervention. They recognize the counselor as their advocate.

Principals observe the positive relationships that are developed between counselors and teachers. The strategies and plans offered by the counselors to teachers are helpful in addressing social and behavioral issues displayed by some students. The principals observe that during the classroom presentations counselors are able to positively interact with a large number of students. Principals appreciate the positive relationships counselors developed with parents, and the efforts made to assist parents with issues regarding their children.

Junior High:

At Shaker Junior High School the counselors conduct seventh grade annual reviews, which is the first step in the students' high school programming process. Parents are encouraged to participate in this seventh grade annual review. In preparing eighth students for the high school, academic programming includes assisting students in making realistic career choices. The goal is to help families better understand the diploma requirements, programming choices, and ultimately the college and career choice process.

Counselors understand the process for enrolling students in the enrichment and remedial reading/writing courses. They respond to student and parent inquiries by helping them to understand the choice of courses and sequences, which have implications for future academic, college, vocational and career opportunities.

For those students who are at-risk for academic difficulties, counselors are aware of the many services available within our school system to help them. They arrange for students to have the support they require in order to achieve. They ensure that throughout the school year students have all available opportunities to improve their performance and to obtain support services. This included assessing students to work the intervention programs: the block support aide, FOCUS program, reading and writing program, tutors, PIIP (for ninth grade), ELA support, and Fundamental Math 8. In addition, counselors review the "at-risk lists" generated quarterly to identify those students not meeting the promotion requirements.

The daily block meetings, which the junior high guidance counselors attend, serve as a means to keep the counselor and teachers up-to-date about students' academic, social and emotional progress. The counselors facilitate the block meetings with parents invited to discuss their children's academic performance. Parents continue to contact the guidance counselors directly to request coordination of academic services and follow up.

High School:

At Shaker High School, meetings occur with parents at the eighth and eleventh grade annual reviews and the case conferences that are held throughout the year. In addition, counselors participate in those conferences between the hall offices and parents regarding students who had difficulties in the area of academics and behavior. The counselor presents students at-risk of academic failure and behavioral concerns to the Child Study Team. A plan is developed by the members of the team to assist these students with interventions, and counselors monitor students progress to ensure the plan is successful. These interventions and follow-up are shared with parents. Guidance counselors continue to make an extra effort to stay in close contact with principals concerning students who had particular issues that negatively impacted on their time at Shaker High School. Counselors also attend re-entry meetings for students at Goodrich for long-term suspension and then are returning to Shaker High School.

At Shaker High School, administrators and teachers depend on counselors to facilitate meetings with parents and students regarding academic and behavioral classroom issues. Teachers also contact counselors both formally and informally in order to confer regarding student concerns and updates. Counselors work with students and their parents to ensure that specific graduation requirements are met. They counsel students regarding their career and post-secondary education planning.

Student Assistance Program:

The Student Assistance Program provides support for student with academic, behavioral and social difficulties. The two counselors in this program collaborate with the junior and high school counselors, who refer students to them for more lengthy counseling services. In addition, the principals, teachers, and parents refer students to the student assistance counselor on a regular basis for a variety of social and adolescent concerns, which impact the students' ability to be academically successful. The Student Assistance Counselors are in the North Colonie Secondary Schools under a partnership with the Colonie Youth Center.

Health Services

Success in school requires the enhancement and promotion of optimal health and well-being. The team of certified school nurses in the Health Service Department of the North Colonie Central School District challenges students, family and community to prevent disease, promote and protect health, and minimize the complications of health problems. Our purpose is to directly

enhance the educational achievement for each student by advocating and promoting health and wellness.

Responsibilities: To be performed in a manner consistent with professional standards, the New York State Nurse Practice Act, state regulations and district policies.

The nurse

- uses the nursing process to assess the health needs of students and staff.
- administers medications and treatments as ordered.
- provides care for student and staff illness and accidents.
- develops individual health care plans and modifications for students with special health care needs.
- serves as liaison between the home, medical community, and the school regarding student health concerns
- manages mandated school screening programs and school/sports physicals and follow-up.
- monitors the school environment and recommends changes to promote health and safety.
- coordinates school health services by managing the health office.
- prepares and maintains accurate cumulative health records including immunizations.
- serves as a resource person to home school, the school district, and community regarding health issues.
- serves as a member of the building child support team as needed.
- reviews and evaluates own job performance and maintains professional development.
- reviews and evaluates school health services.
- reports suspected physical and sexual abuse and neglect; follows communicable disease control procedures; and informs administration and/or parents regarding school exclusion and readmission.

Psychological Services

The school psychologists continue to play an intricate role in their respective buildings by providing psychological services to support both identified and non-identified students. In addition to providing support to students, their role has also been highly beneficial to parents, teachers and administrators. Building principals and administrators consult with psychologists on a regular basis about student needs. The psychologists serve as a resource for many issues such as behavior management, attention deficit disorders, discipline, child abuse, suicide,

retention/acceleration, interpretation of standardized tests, family dynamics and accommodations for children's learning.

The relationship between teachers and the school psychologists in their respective buildings is one where the psychologist serves as a permanent consultant to colleagues. Consultation, counseling services, and assessment are often requested, but information related to outside resources and effective strategies for dealing with students with challenging behaviors have increased. Although many contacts are formalized through the PST/CST process, the majority of contacts with the teachers is informal and focus on student needs and joint meetings with parents, principals, counselors and Pupil Services staff.

Students in K-12 appear to respond positively to counseling services provided by the district psychologists as evidenced by the large number of self-referrals and positive feedback from parents, teachers and principals. The high school psychologist has provided leadership in developing and presenting lessons on Character Education, which incorporate strategies presented by student leaders and select teachers to initiate positive social changes. The goal is to bring about changes to help students feel welcome, safe, supported, and involved with their peers. These lessons have been well received and approved by the students as evidenced by the response from students, teachers, administrators and parents.

The psychologists are co-chairpersons of the building crisis response teams and as such, are involved in developing crisis plans, facilitating the crisis response team meetings, and following up after crisis situations. They are members of the Child Study Teams in each building, which has been an excellent way for psychologists to consult with faculty and staff about individual students while helping to design pre-referral interventions for students who are not yet in the special education system. Psychologists function as an essential member of the Pupil Service Team in each building and often consult with principals and administrators regarding PST issues. The psychologists are resources on current psychological research and developmental issues.

Parents evaluate the effectiveness of the program through parent surveys and verbal feedback regarding parenting programs, the kindergarten screening process, and counseling of students. Parents also evaluate the program informally after reviewing results of assessments, which have been completed for students who have been referred for special education services.

Psychologists are involved with the preventive measures to actively support students in the Least Restrictive Environment and to implement the integration of students with disabilities to the maximum extent appropriate. The psychologists have the ability to consult on the latest trends using psychotropic medications with children because of their ongoing consultation with the district's consulting psychiatrist. Psychologists also are called on frequently to function as

liaisons between the district and the psychiatrist in order to have high needs students receive psychiatric evaluations in a timely manner. Each psychologist remains committed to attending conferences and workshops to remain current in the field and to serve as a knowledgeable resource for the school staff.

Speech Therapy

Students receive speech therapy to provide for correction of speech and language as soon as possible after the child enters school. Therapists receive referrals to assess a student's possible need to have these services. These therapists screen students and determine if an evaluation is in order. Several evaluations are used to determine if a student qualifies for speech therapy.

Through the Child Study Teams, the elementary speech therapists are included in the pre-referral and intervention strategies that are suggested to and implemented by classroom teachers. By providing direct classroom support in the K-2 Language Program in all district classrooms at those grade levels, the therapist consults with teachers to provide strategies that can better facilitate language to assist those students who are encountering communication difficulties. These suggestions can assist students with focusing and more effective communication. At the secondary level, the teachers ask for consultations for strategies to assist students become more independent with their functional skills and overall communication.

Occupational Therapy

Students receive occupational therapy services through the special education process. Students who are in need of this service have IEP goals focusing on fine motor coordination and integration of assistive technology. Therapists consult with other team members, outside consultants, and parents to support children's programs. Through careful scheduling, the therapists work to have children continue with the same therapist. Principals recognize the value of the consultation provided to classroom teachers, primarily on handwriting issues. The parents of students with autism value the occupational therapists area of expertise and inclusion as integral team members.

Physical Therapy

Students receive physical therapy services through the special education process. Students who are in need of this service have IEP goals focusing on gross motor coordination and skills. Therapists consult with other team members, outside consultants and parents to support children's programs. Through careful scheduling,

the therapists work to have children continue with the same therapist. Principals recognize the assistance that consultation provides to both classroom and physical education teachers.

Interscholastic Athletics

Shaker High School's Blue Bison athletic programs have a proud tradition of being part of the total education of our students. Athletics serve as a model for life in that they provide opportunities for students to develop responsibility, cooperation, respect, leadership, pride, citizenship concern for others, discipline, and loyalty. Our fields-gymnasiums are classrooms where we provide instruction in life lessons through the arena of interscholastic athletics. Our programs provide an opportunity for talented and gifted athletes to display and further develop their sport skills in a competitive and sportsmanlike manner.

Shaker was a founding member of the Suburban Scholastic Council League in Section 2 of the New York State Public High School Athletic Association, with membership beginning in 1958. Twenty-nine different sports programs are offered and over 80 teams in grades 7-12 competing on Modified, Freshmen, Junior Varsity and Varsity levels. About half of our high school students compete in the program each year. With so many opportunities, it is the hope that there is a place for everyone in the interscholastic sports program.

Student Activities

The clubs listed in the Annual Evaluation reflect the diverse and varied interests of our students. Some of the clubs have been in existence for decades, while others reflect recent student interest.

These clubs give students the opportunity to develop specific interests while working together with their peers and adults. Students develop better communication skills while learning to plan, develop, and implement their clubs' goals. Research has indicated that there is a strong correlation between college and career success with student participation in extracurricular activities during junior and senior high school years.

Summer School Programs

Elementary:

The purpose of the reading and writing summer school program for grades Pre-Kindergarten - Grade 4 is to maintain and improve the academic and affective performance of students who are identified as at risk in the area of language arts. Students who are receiving remedial services in special education, ESL, and remedial reading are invited to attend the summer program for their grade level. The balanced literacy model taught during the school year is the basis of the language arts instruction during the summer program. Literature themes are introduced in the grade level to pre-teach and prepare students for topics that they will encounter during the next school year.

Junior High:

The primary goal of the Summer Program is to provide students with an intensive and positive academic experience in the areas of reading and writing while avoiding the learning lapse that may occur during summer vacation. Through classroom observations, parent questionnaires, progress reports, review of students' work, and discussions with teachers and parents, the program accomplishes its objectives.

The Academic Summer School Program is offered to seventh and eighth grade students who have not attain sufficient quality points in order to be promoted to the next grade level.

High School:

The Shaker High Summer School provides a remediation opportunity in the core content areas of English, Math, Science, Social Studies, and Health Education which are required for high school graduation. In addition, students who wish to make room in their regular school schedule to accommodate additional elective pursuits may complete the required one half credit of Health Education in our summer school program. The courses and number of sections offered each summer varies dependent upon the student demand for specific course remediation. The program provides forty-five hours of instruction, as well as the August administration of the NYS Regents examinations. Examination services are provided to students not enrolled in the program but who want to re-take a Regents examination.

The program plays a key role in the Academic Intervention Services efforts at the high school by providing remediation outside the regular school year. Students who successfully complete required course work or examinations in the summer program are not required to participate in additional academic

intervention services in that area during the school year. However, beyond assisting students in acquiring a passing grade for a specific course or examination, a key objective of the summer program is to assist students in identifying and managing academic and scholastic concerns they are encountering. Basic skills including reading for comprehension, using grade level vocabulary when writing, test preparation, and study and organizational skills are frequently emphasized and incorporated into the remediation classes. Students often establish a positive and supportive working rapport with teachers and administrators that carry over into the school year, providing additional resources for student success.

Parental awareness and involvement are important components in the summer program. Parents are encouraged to be involved, beginning with the counselor discussion during the registration process through to the review of the weekly report cards. Parents are provided with a copy of the program handbook that supplies the guidelines of the program, as well as contact information to receive assistance as needed. Faculty members contact parents of students who have not achieved a passing grade for the week and discuss what contributed to the grade and how the parent might assist the student in improving on their performance. When problems persist, administrators are involved and problem solving efforts include telephone contacts and conferences. To avoid loss of credit due to lack of sufficient participation, parents are contacted each time a student is late or absent from class and written notification identifying a cumulative total of participation points lost is mailed home.