Fairfax County Public Schools

Student Improvement Plan
2008 – 2009

Thomas Jefferson High School for Science and Technology

Cluster 3

Evan Glazer, Principal
FCPS School Improvement Planning Process
“Continuous Improvement”

**PLAN**
- Review Student Performance Data (formative and summative)
- Determine Programmatic/Instructional Strengths & Weaknesses
- Research Best Practices
- Develop School Improvement Plan Objectives
- Develop Performance Indicators
- Develop Work Plan Strategies

**DO**
- Implement School Improvement Plan Objectives (Implement Work Plan Strategies)

**STUDY**
- Study School Improvement Plan Objectives Results (Results and Reflection)

**ACT**
- Determine Whether School Improvement Objectives Will Be: Standardized, Modified, Abandoned

- May
- August
- October

Department of Accountability
Office of Educational Planning
Revised January 28, 2008
# COMMITTEE MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Evan Glazer</td>
<td>Principal</td>
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<td>Heather Sondel</td>
<td>Assistant Principal</td>
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<td>Mary Ann Bosley</td>
<td>Assistant Principal</td>
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<td>Carter Vaden</td>
<td>One Question Coordinator</td>
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<td>Jennifer Allard</td>
<td>MathCS Division Manager</td>
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<td>Cathy Colglazier</td>
<td>Humanities Division Manager</td>
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<tr>
<td>Genevieve Delfosse</td>
<td>FLAMPE Division Manager</td>
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<td>Jim Jarvis</td>
<td>Sci Tech Division Manager</td>
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<td>Betsy Sandstrom</td>
<td>Research Symposium Coordinator</td>
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<td>Barbara Wood</td>
<td>Research Symposium Committee Member</td>
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<td>Pam Curtis</td>
<td>Research Symposium Committee Member</td>
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<td>Emily Orser</td>
<td>Research Symposium Committee Member</td>
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<td>Jeff James</td>
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<td>Koji Otani</td>
<td>Research Symposium Committee Member</td>
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<td>Andrea Cobb</td>
<td>Research Symposium Committee Member</td>
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VISION AND MISSION STATEMENTS AND CORE VALUES/BELIEFS

FAIRFAX COUNTY PUBLIC SCHOOLS—VISION STATEMENT

LOOKING TO THE FUTURE—FCPS prepares all students for the world of the future, by giving them a broad spectrum of opportunities to prepare for education and employment beyond high school. All graduates are productive and responsible members of society, capable of competing in the global economy, and motivated to pursue learning throughout their lifetimes.

COMMITMENT TO OPPORTUNITY—FCPS values its diversity, and acknowledges that all people contribute to the well-being of the community. FCPS provides opportunities for all its students and employees to grow educationally, personally, and professionally.

COMMUNITY SUPPORT—Fairfax County embraces its schools. Businesses and community members generously volunteer their time and resources to help students. Schools are integrated into the fabric of the community, and residents take pride in their schools. The success of FCPS draws businesses to Fairfax County. Citizens support the financial and capital needs of the school system.

ACHIEVEMENT—Fairfax County students achieve at high levels across a broad spectrum of pursuits. FCPS values a well-rounded education that goes beyond basics, and encompasses the arts, literacy, technology, and preparation for the world of work. FCPS provide a breadth and depth of opportunities to allow all students to stretch their capabilities.

ACCOUNTABILITY—FCPS is accountable for the academic achievement of all students. FCPS measures academic progress to ensure that all students, regardless of race, poverty, language, or disability, will graduate with the knowledge and skills necessary for college and/or employment. FCPS spends money wisely. FCPS directs funds to the classroom, and finds ways to improve performance across the spectrum of academic programs and business processes.

FAIRFAX COUNTY PUBLIC SCHOOLS—MISSION STATEMENT

Fairfax County Public Schools, a world-class school system, inspires, enables, and empowers students to meet high academic standards, lead ethical lives, and demonstrate responsible citizenship.

FAIRFAX COUNTY PUBLIC SCHOOLS—BELIEFS

We Believe in Our Children
- Each child is important and entitled to the opportunity to realize his or her fullest potential.
- High expectations promote high achievement.

We Believe in Our Teachers
- Effective teachers are essential to student success.
- Learning occurs best when instruction is tailored to individual needs.

We Believe in Our Public Education System
- Adults and children thrive in a vibrant, safe, enriching, and respectful environment.
- A well-rounded education enables students to lead fulfilling and culturally rich lives.
- An educated citizenry is critical to sustaining our economy and our system of self-governance.

We Believe in Our Community
- A dynamic partnership among students, parents, teachers, staff members, and the community is critical to exceptional student achievement.
- Our diversity creates resilient, open, and innovative citizens of the global community.
**SCHOOL—VISION STATEMENT**

Thomas Jefferson high School for Science and Technology seeks to provide an integrated, comprehensive science-tech focused education that will give tomorrow’s future leaders in Math, Science and Technology the tools that they will need to make a difference in their respective fields.

**SCHOOL—MISSION STATEMENT**

The mission of Thomas Jefferson High School for Science and Technology is to provide students a challenging learning environment focused on math, science, and technology, to inspire joy at the prospect of discovery, and to foster a culture of innovation based on ethical behavior and the shared interests of humanity.

**SCHOOL—CORE VALUES/BELIEFS**

At Thomas Jefferson High School for Science and Technology, we believe

- Critical thinking and problem solving skills are vital in addressing the complex societal and ethical issues of our time.
- Students learn best in a community where academic disciplines are integrated, fostering an appreciation of how they interact and form a whole.
- Global interdependence compels us to understand the languages, systems and diverse cultures of people throughout the world.
- Literature, music and the arts are essential, timeless aspects of human existence.
- The methods of science provide discipline to our search for structure in the world.
- Research stems from a combination of fundamental knowledge, individual creativity, and curiosity.
- Effective communication is often the only difference between a good idea and a successful initiative.
- Collaborative learning, athletics, and extracurricular activities develop leadership and interpersonal skills.
- Responsibility and integrity are core principles in the pursuit of excellence.
- Learning never ends
SPECIAL PROGRAMS

- TJ Diploma – 26 credit hours and 9 verified credits
- Accelerated academic options
- Twelve Science and Technology Research Labs
- Student Mentorship Program with local business and research organizations
- IBET (Integrated Biology, English and Technology) – Freshman program
- Accelerated Summer School options
- JOSTI (Jefferson Overseas Technology Institute) – partnership with U.S. State Department
- TJHSST-George Mason University collaboration
- School-wide Character Education through Teacher Advisories, the Sophomore Ethics Forum and Building a Better Community
- Student Honor Code
- One Book, One Community Summer Reading Program
- 8th Period - 85 + student academic and enrichment clubs
- Jefferson Learning Community
- Admission by application only
- Founding member of the National Consortium of Specialized Secondary Schools for Math, Science and Technology
STUDENT ACHIEVEMENT GOAL—ACADEMICS

STUDENT ACHIEVEMENT GOAL: All students will obtain, understand, analyze, communicate, and apply knowledge and skills to achieve success in school and life.

Check all that apply to this school improvement plan objective.

- 1.1. Achieve their full academic potential in the core disciplines of:
  - 1.1.1 English language arts
  - 1.1.2 Mathematics
  - 1.1.3 Science
  - 1.1.4 Social studies
- 1.2 Communicate in at least two languages
- 1.3 Explore, understand, and value the fine and practical arts.
- 1.4 Understand the interrelationship and interdependence of the countries and cultures of the world.
- 1.5 Effectively use technology to access, communicate, and apply knowledge and to foster creativity.

SCHOOL IMPROVEMENT PLAN OBJECTIVE: The school community will launch a One Question initiative to focus on an interdisciplinary problem in science and society.

RATIONALE FOR OBJECTIVE: (student performance data; knowledge of programmatic/instructional strengths and weaknesses; best-practice research)

Description:
The central idea behind TJ One Question would be to provide students with year-long learning opportunities focused around a single question or issue that addresses a problem in science and society. This year-long focus of study will allow teachers and students to highlight and emphasize the TJ values and skills of critical inquiry and research, intellectual curiosity, problem solving, and social responsibility. Students will submit proposed questions with rationale for implementation in our curriculum, special programs, and student activities. All submissions will be reviewed by a committee of teachers, administrators, students, and parents. A final question will then be selected by the committee in the Spring prior to course selection.

As part of the proposal, various activities could be planned and implemented that focus on the central question including but certainly not limited to:
• Guest speakers and lecturers for the entire student body or selected classes
• Special seminar courses or electives
• 8th period activities geared toward the question
• School-wide reading(s) based on the question
• Projects, activities, speakers, and/or discussions centered around the question
• Integration of study of the question into classes when and where appropriate
• Service projects related to the question and possible answers/solutions
• New avenues of inquiry to potential answers/solutions being proposed by students and faculty

Data Sources:
During the 2007-2008 school year, the Academic Goals curriculum team reviewed 24 school-wide program ideas that could be implemented to support our SACS five-year academic goal to stimulate critical inquiry and research, problem solving, intellectual curiosity, and social responsibility. The program ideas were developed through a study of NCSSSMST special programs, along with an analysis of hurdles and wishes from teachers across the school. These program ideas were shared with each of the divisions and departments, and the One Question initiative was among the most popular.

Knowledge of Programmatic/Instructional Strengths and Weaknesses:
TJ’s SACS Action Plan recommends the need to develop more interdisciplinary lesson plans as needed. Currently, TJ’s interdisciplinary work is primarily developed in blocked courses, including Integrated Biology, English, and Technology; and Humanities (social studies and English). This year, we will experiment with a Chemistry and Humanities pairing of three courses to examine the interdisciplinary connections in art restoration. Other interdisciplinary lessons occur across teachers on an individual basis. This One Question initiative could launch into new interdisciplinary connections across classes, between classes and activities, and within potentially new classes.

Additionally, TJ has maintained a One Book initiative, a summer reading for the entire school, over the past several years. The school librarian has led a selection committee each spring, and then encouraged teachers to make classrooms connections with new activities. The One Question initiative is an extension of the One Book, where students would propose a One Book, as well as curriculum, guest speakers, school activities, and more, for a more integrated plan.

Best Practice Research:
The One Question option would be patterned after the University of Richmond’s Richmond Quest. The following comes from the University of Richmond Quest website: http://quest.richmond.edu/

Every two years, University of Richmond students, faculty, and staff focus their collective attention on a broad and pervasive question that confronts the academic world and contemporary society. Over and above seeking an answer to its question, the purpose of each Richmond Quest is to explore and create unique synergies across our disciplines of arts and sciences, law, business and leadership studies.
Since its inception, the Richmond Quest has inspired and supported the creation of over 70 new and revised courses, more than 130 special events, and over 100 independent student research projects. We encourage projects that:

- Transform the minds of faculty, staff, and students;
- Enhance the intellectual experience of faculty, staff, and students;
- Enrich the existing university curriculum;
- Have an interdisciplinary and/or interdepartmental focus;
- Reach out to communities beyond the University of Richmond through publication, presentation, and other forms of promotion;
- Engage students in the course revision process.

We will explore best practices at high schools if this program is implemented at other schools.
## STUDENT ACHIEVEMENT GOAL—ACADEMICS

<table>
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<tr>
<th>Sub-Goal Number</th>
<th>Performance Indicators</th>
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<tr>
<td></td>
<td><em>(Specific Measurable Attainable Results-Oriented and Time-Bound)</em></td>
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<td></td>
<td>At least 3 question proposals are submitted to the One Question committee to review.</td>
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<td>At least 2 students will present One Book projects at the research symposium based on grants from the school.</td>
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<td></td>
<td>A committee will be representative of TJ constituencies: students, faculty, parents and the scientific community.</td>
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</table>
**STUDENT ACHIEVEMENT GOAL—ACADEMICS**  
**WORK PLAN**

**SCHOOL IMPROVEMENT PLAN OBJECTIVE:** The school community will launch a One Question initiative to focus on an interdisciplinary issue related to an important topic in our global society.

Administrative team liaison: Carter Vaden under the leadership of Mary Ann Bosley

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Person(s) Responsible</th>
<th>Materials Needed and Costs</th>
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<th>In-Process Measures</th>
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</table>
| What we will do to achieve the objective.  
*Include professional development and parent involvement* | Person(s) who will monitor the strategy. | What materials will be used to implement the strategy? What are the costs? | Check the projected quarter for implementing the strategy this school year. | How we will monitor progress. |
| **1. Conclude One Book program by offering grant opportunities to share at research symposium** | Mary Ann Bosley | | | X Ceremony and presentation of new initiative at the Research Symposium. |
| **2. Develop a One Question committee, consisting of faculty, students, parents, and administration** | Carter Vaden | Time | X | Creation of committee, from volunteer applications. |
| **3. Launch an advertising campaign about One Question to motivate student population** | Carter Vaden | Brochures, posters, e-mails and a website. | X X | Creation and distribution of promotional materials. |
| **4. Review student proposals for One Question to announce winner at research symposium** | Carter Vaden | Application packets and evaluation procedures | X X | Creation and distribution of guidelines. |
| **5. Encourage research projects related to the One Question.** | Evan Glazer, Mary Ann Bosley | Announcements at Divisional meetings, student clubs | X X | Projects related to One Question Initiative. |
STUDENT ACHIEVEMENT GOAL—ACADEMICS

STUDENT ACHIEVEMENT GOAL: All students will obtain, understand, analyze, communicate, and apply knowledge and skills to achieve success in school and life.

Check all that apply to this school improvement plan objective.

□ 1.1. Achieve their full academic potential in the core disciplines of:  

  □ 1.1.1 English language arts  
  □ 1.1.2 Mathematics  
  □ 1.1.3 Science  
  □ 1.1.4 Social studies

□ 1.2 Communicate in at least two languages

□ 1.3 Explore, understand, and value the fine and practical arts.

□ 1.4 Understand the interrelationship and interdependence of the countries and cultures of the world.

□ 1.5 Effectively use technology to access, communicate, and apply knowledge and to foster creativity.

SCHOOL IMPROVEMENT PLAN OBJECTIVE: The student body will participate in a day long research symposium to share their research and learn about research opportunities.

RATIONALE FOR OBJECTIVE: (student performance data; knowledge of programmatic/instructional strengths and weaknesses; best-practice research)

Description:
A day long symposium in late May will be introduced to the students this year as an opportunity to share student research projects and learn about future research opportunities at TJ and in potential careers. A symposium also serves as an opportunity for students to inspire each other with new ideas for study in future years, obtain feedback from their peers, and involve alumni and community partners in our academic programs. Seniors could present their research projects related to the question, and underclass students might share their analyses and project creations developed over the course of the year. In addition to student presentations, a variety of other activities, including speakers, a panel/debate with outside experts, interactive experiment stations, and a research career fair could be part of this culminating experience.

The symposium could also provide a venue to present work on projects related to the One Book theme, and then the One Question theme for next year’s study could be introduced to the whole school.

Data Sources:
During the 2007-2008 school year, the Academic Goals curriculum team reviewed 24 school-wide program ideas that could be implemented to support our SACS five-year academic goal to stimulate critical inquiry and research, problem solving, intellectual curiosity, and social responsibility. The program ideas were developed through a study of NCSSSMST special programs, along with an analysis of hurdles and wishes from teachers across the school. These program ideas were shared with each of the divisions and departments, and the research symposium was among the most popular.

Knowledge of Programmatic/Instructional Strengths and Weaknesses:
Our students have not had opportunities to share their research within the school, besides science fairs and mentorship fair. The freshmen present their projects at the IBET symposium where parents are the primary participants, and older students cannot participate since they are in class. Most of the seniors present their research on special open house evenings so parents can see their work, however younger students seldom participate. Prior to science fair and during mentorship fair, there are some 8th period opportunities to learn about student research, although only a small percentage of the school population are in attendance. Through this new symposium, IBET students can present their work school-wide, and seniors can present their culminating projects to the community. The symposium will also enable alumni and community partners to be part of this event, discussing their research, offering future opportunities, and providing fund activities.

Best Practice Research:
Currently TJ runs a half-day symposium for its IBET presentations. The research symposium committee can use best practices from the IBET symposium to organize the end-of-year research symposium. In fact, the IBET symposium will now occur at the same time since the whole school will be used on this day. We will also learn from other NCSSSMST consortium schools around the country that host a research symposium.
## STUDENT ACHIEVEMENT GOAL—ACADEMICS

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<td><em>(Specific Measurable Attainable Results-Oriented and Time-Bound)</em></td>
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<td></td>
<td>95% of the freshman and senior classes will present their research publicly.</td>
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<td>At least 2 scientific corporations will participate directly in the conference.</td>
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<td>At least 2 One Question Grant Recipients will present their projects at the conference</td>
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</tbody>
</table>
### SCHOOL IMPROVEMENT PLAN OBJECTIVE:
The student body will participate in a day long research symposium to share their research and learn about research opportunities.

Administrative team liaison: Betsy Sandstrom and Koji Otani under the leadership of Heather Sondel

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<td>How we will monitor progress.</td>
</tr>
<tr>
<td>6. Develop a research symposium committee, consisting of faculty, students, parents, administration, and researcher</td>
<td>Koji Otani, Betsy Sandstrom</td>
<td>Release time, meeting time</td>
<td>X</td>
<td>Workplans for individual teams of the committee: IBET, Senior Research, Mentorship, Exhibitions/Presentations</td>
</tr>
<tr>
<td>7. Obtain sponsors for the research symposium, in collaboration with the Partnership Fund</td>
<td>Evan Glazer, Gary Bottorff</td>
<td></td>
<td>X X X X</td>
<td>Donations of time, materials and speakers.</td>
</tr>
<tr>
<td>8. Obtain guest speakers/presenters from alumni and corporations</td>
<td>Evan Glazer, Gary Bottorff</td>
<td>Connections to area partners and supporters</td>
<td>X X X X</td>
<td>Donations of time, materials and speakers.</td>
</tr>
<tr>
<td>9. Develop research symposium program</td>
<td>Koji Otani, Betsy Sandstrom</td>
<td>Time</td>
<td>X X X X</td>
<td>Draft and final program for the day-long activity.</td>
</tr>
<tr>
<td>10. Develop timeline for completion of research projects</td>
<td>Koji Otani, Betsy Sandstrom</td>
<td>Time</td>
<td>X X</td>
<td>Timelines and calendars; weekly progress meetings.</td>
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STUDENT ACHIEVEMENT GOAL—ACADEMICS

STUDENT ACHIEVEMENT GOAL: All students will obtain, understand, analyze, communicate, and apply knowledge and skills to achieve success in school and life.

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☐ 1.4 Understand the interrelationship and interdependence of the countries and cultures of the world.

☐ 1.5 Effectively use technology to access, communicate, and apply knowledge and to foster creativity.

SCHOOL IMPROVEMENT PLAN OBJECTIVE: Teachers will implement vertical articulation plans that directly impact student learning.

RATIONALE FOR OBJECTIVE: (student performance data; knowledge of programmatic/instructional strengths and weaknesses; best-practice research)

Background:
The SACS Action Plan identifies vertical articulation (integration) as an action item as a necessary step to implement our academic goals of critical inquiry and research, problem solving, intellectual curiosity, and social responsibility. During the 2007-2008 school year, an Academic Goals curriculum team had representatives from each division and department to identify areas that needed change in their respective area. The 2008-2009 school year is an opportunity to begin implementing those changes.

Data Sources:
In 2007-2008, each of the divisions and departments completed a template (see appendix) to summarize the primary areas in their respective curricula to modify in the upcoming years. These areas were determined through discussion and analysis in horizontal and vertical articulation teams within the division. These findings were based on analysis of curriculum rather than student test scores.

Knowledge of Programmatic/Instructional Strengths and Weaknesses:
Most of the teachers integrate the academic goals in their individual classes, but not necessarily uniformly across teachers or across courses within a division. The horizontal and vertical articulation approach aims to have common learning experiences across courses within a division.

**Best Practice Research:**
A variety of research sources will be referenced since the articulation goals are different across divisions.
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**STUDENT ACHIEVEMENT GOAL—ACADEMICS**

**WORK PLAN**

**SCHOOL IMPROVEMENT PLAN OBJECTIVE:** Teachers will implement vertical articulation plans that directly impact student learning.

Administrative team liaison: Evan Glazer

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<td>How we will monitor progress.</td>
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<td>12. Carry out vertical articulation examination of needs in knowledge,</td>
<td>Jarvis--complete</td>
<td>X</td>
<td>1st Qtr.</td>
<td>Complete, per last year’s report, attached.</td>
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<td>skills, and CIRPSISR</td>
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<td>2nd Qtr.</td>
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<td>13. Make changes in division’s classes to incorporate results of amended</td>
<td>Jarvis--complete</td>
<td>X</td>
<td>3rd Qtr.</td>
<td>Complete, included in this year’s syllabi, Aug 08</td>
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<td>curricula</td>
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<td>4th Qtr.</td>
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<td>14. Enhance research skills at all grade levels</td>
<td>Jarvis</td>
<td>JLC session</td>
<td>X</td>
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<td>15. Adjust class objectives to include recommendations of research</td>
<td>Jarvis</td>
<td>X</td>
<td>X</td>
<td>Report on suggestions</td>
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<td>enhancements</td>
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<td>16. Vertical integration: Review course content to avoid overlaps and</td>
<td>Cookie Frome</td>
<td>FCPS Programs of Study</td>
<td>X</td>
<td>Programs of Studies for Geometry through Calculus</td>
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<td>create a more fluid transition between courses.</td>
<td>Jen Pierce</td>
<td></td>
<td>X</td>
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<td>Pat Montgomery</td>
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<td></td>
<td>Myra Spoden</td>
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<td>17. Review statistics program in Geometry, Algebra 2-Trig, and Precalculus.</td>
<td>Pat Gabriel</td>
<td>X</td>
<td>X</td>
<td>Statistics integration plan, Data Analysis packets, lesson plans</td>
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<td>X</td>
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<td>18. Increase use of technology effectively in the Math/Computer Science</td>
<td>Pat Montgomery</td>
<td>Technology tools, training</td>
<td>X</td>
<td>Lesson plans</td>
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<td>classroom, especially the smart board and TI technology (TI-Nspire and</td>
<td>Pat Maturo</td>
<td></td>
<td>X</td>
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<td>CBL/CBR).</td>
<td></td>
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<td>X</td>
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<tr>
<td>19. Implement more open ended and application problems at all levels.</td>
<td>Pat Montgomery</td>
<td>X</td>
<td>X</td>
<td>Sample problems, lesson plans</td>
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<tr>
<td></td>
<td>Carol Rychlik</td>
<td></td>
<td>X</td>
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</tr>
</tbody>
</table>
**SCHOOL IMPROVEMENT PLAN OBJECTIVE:** Teachers will implement vertical articulation plans that directly impact student learning.

Administrative team liaison: Evan Glazer

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Person(s) Responsible</th>
<th>Materials Needed and Costs</th>
<th>Time Line</th>
<th>In-Process Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>What we will do to achieve the objective. <em>(Include professional development and parent involvement)</em></td>
<td>Person(s) who will monitor the strategy.</td>
<td>What materials will be used to implement the strategy? What are the costs?</td>
<td>Check the projected quarter for implementing the strategy this school year.</td>
<td>How we will monitor progress.</td>
</tr>
<tr>
<td>20. Implement classroom strategies to encourage students to speak spontaneously in the target language.</td>
<td>Genevieve Delfosse Lucy LaSalle</td>
<td>Investigate software that would support initiative</td>
<td>X X X X</td>
<td>Data report on this ongoing goal</td>
</tr>
<tr>
<td>21. Create and share examples of foundational research in the target language, and explore new possibilities for primary research projects.</td>
<td>Carter Vaden</td>
<td></td>
<td>X X X X</td>
<td>Sample activities</td>
</tr>
<tr>
<td>22. Enhance musical repertoire so that students develop musical skills at all grade levels through vertical integration</td>
<td>Mary Ulrey Luke Frels Mary Ulrey</td>
<td>Planning time</td>
<td>X X X X</td>
<td>Broader musical concept</td>
</tr>
</tbody>
</table>
# RESULTS AND REFLECTION

## A Focus on Continuous Improvement

<table>
<thead>
<tr>
<th>SIP Objectives</th>
<th>Results related to performance indicators</th>
<th>Reflection on critical factors that supported and inhibited success</th>
<th>Implications for ongoing improvement efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academics</strong></td>
<td></td>
<td>Supported:</td>
<td></td>
</tr>
<tr>
<td><strong>Objective:</strong> The school community will launch a One Question initiative to focus on an interdisciplinary problem in science and society.</td>
<td>Inhibited:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Academics</strong></td>
<td></td>
<td>Supported:</td>
<td></td>
</tr>
<tr>
<td><strong>Objective:</strong> The student body will participate in a day long research symposium to share their research and learn about research opportunities.</td>
<td>Inhibited:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Academics</strong></td>
<td></td>
<td>Supported:</td>
<td></td>
</tr>
<tr>
<td><strong>Objective:</strong> Teachers will implement vertical articulation plans that directly impact student learning.</td>
<td>Inhibited:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX
VERTICAL ARTICULATION RECOMMENDATIONS BY DIVISION 2007-2008

Vertical Integration achieved in 2007-08 by the Science & Technology Division

1.1 Each division will submit to the committee a list of the knowledge (course content), skills (specific course skills), and attitudes (intellectual dispositions) for each of the core courses within that division by the beginning of the 4th quarter, 2008.

1.1 Each division will submit to the committee a list of how the TJ skills of critical inquiry and research and problem solving and the TJ values of intellectual curiosity and social responsibility are emphasized in each of the core courses with that division by the 4th quarter, 2008.

Most of the above particulars are well articulated in the Virginia Standards of Learning (http://www.doe.virginia.gov/go/Sols/home.shtml). The FCPS statement on the Virginia SOLS is clear, “Our Programs of Study are based on the Standards of Learning for Public Schools in the Commonwealth of Virginia and the National Science Education Standards.” (http://www.fcps.edu/DIS/OHSICS/science/hsscience.htm)

Variances in vertical articulation from the above documents are shown in the items below.

Technology
Design & Tech 9 (commonality among all classes in topics covered has been achieved)
- Experimental design process
- Basic electronics (incl Ohm’s law problems, reducing physics time for this topic)
- Chip programming (example of immediate use of computer code)
- Computer Assisted Drawing (introduction to basics)
- Power tool use and safety
- Building a model robot followed by competition under the technical specifications
- Presentation techniques—software and oral delivery lessons
- Develop first research proposal
- Set up portfolio for whole time in school
- Undertake experimental design project of choice

Technology Labs and Electives
♦ Establish and print in the course selection guide the list of required and suggested prerequisites for each tech lab. (on page3) This establishes commonality of entry knowledge to each lab which should accelerate the preparation and selection of a senior project proposal.

Science
Biology
♦ Reduce time and stress on teachers concerning theory of evolution and ecosystems as those topics will be integrated in Geosystems on a firmer, more mature background of basic biology.

Chemistry
♦ Ensure that CaCO_3 precipitation is either demonstrated or included in a lab so that the formation of limestone and extraction of carbon from the atmosphere can be accomplished with a firmer background in Geosystems.
♦ Ensure that study of endothermic and exothermic reactions are sufficiently quantitative to cover the basics of thermodynamics for physics class.
Physics
♦ Reduce time spent on Ohm’s Law in Electricity and Magnetism (given IBET coverage, this should be a review item, not new instruction.)
♦ Reduce concern over coverage of thermodynamics, but do quick review thermodynamic aspects of endothermic and exothermic chemical reactions and application in physics.
♦ Do not cover radiation laws (Wein’s Law and Stefan-Boltzmann Law) as they will be covered in Geosystems.

Geosystems
♦ Assume Chemistry provided initial knowledge of gas laws and understanding of molecular vibration possibilities in order that coverage of atmospheric chemistry is built on a constant, firm base.
♦ Cover the radiation laws (Wein’s Law and Stefan-Boltzmann Law) as an essential part of the earth’s radiation/energy budgets.
♦ Build lessons on the carbon cycle with the knowledge that the students have experimented with (or have seen) the precipitation of CaCO₃.
♦ While studying paleontology, recognize that students need a thorough review of the lines of evidence for the theory of evolution as incorporated with extinctions and the surge and development of new species after the extinction.
♦ Incorporate a sophisticated level of understanding of ecosystems and habitats as they change over time to satisfy the concerns of inadequate coverage of environmental biology in biology 1.
## COURSE PREREQUISITES AND RECOMMENDATIONS
### Class of 2010

<table>
<thead>
<tr>
<th>Laboratory</th>
<th>Prerequisite</th>
<th>Co-requisite</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Astronomy &amp; Astrophysics</strong></td>
<td>Astronomy: The Solar System and/or The Universe</td>
<td>Astronomy: The Solar System and/or The Universe</td>
<td>Note: Prerequisite can be co-requisite Or permission of lab director</td>
</tr>
<tr>
<td>- Mrs. Hennig</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Automation and Robotics</strong></td>
<td>Automation and Robotics I or II</td>
<td></td>
<td>One or more of the following:</td>
</tr>
<tr>
<td>- Mr. Dela Cuesta</td>
<td></td>
<td></td>
<td>- Analog or Digital Electronics</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Prototype Development</td>
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<td></td>
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<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td><strong>Life Sciences &amp; Biotechnology</strong></td>
<td>DNA Science I</td>
<td></td>
<td>One of the following:</td>
</tr>
<tr>
<td>- Dr. Cobb</td>
<td></td>
<td></td>
<td>- DNA Science II, AP Chemistry, AP Biology</td>
</tr>
<tr>
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<td></td>
<td>Or permission of lab director</td>
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<tr>
<td><strong>Chemical Analysis</strong></td>
<td>AP Chemistry</td>
<td></td>
<td>• Intro to Organic Chemistry</td>
</tr>
<tr>
<td>- Dr. Kennedy</td>
<td></td>
<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td><strong>Communication Systems</strong></td>
<td>Intro to Communication Systems</td>
<td>Analog Electronics</td>
<td>• Intro to Communication Systems</td>
</tr>
<tr>
<td>- Mr. Montgomery</td>
<td></td>
<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td><strong>Computer Systems</strong></td>
<td>AP Computer Science</td>
<td></td>
<td>One or more courses in:</td>
</tr>
<tr>
<td>- Mr. Latimer</td>
<td></td>
<td></td>
<td>- Artificial Intelligence, or</td>
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<td></td>
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<td></td>
<td>- Parallel Computing, or</td>
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<td></td>
<td></td>
<td></td>
<td>any other course involving computer programming</td>
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<td>Or permission of lab director</td>
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<tr>
<td><strong>Computer Assisted Design</strong></td>
<td>CAD</td>
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<td>One or more of the following:</td>
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<tr>
<td>- Ms. Williamson</td>
<td></td>
<td></td>
<td>- Intro to Engineering</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Architectural Drawing &amp; Design</td>
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<td></td>
<td>Or permission of lab director</td>
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<tr>
<td><strong>Energy Systems</strong></td>
<td>Energy Systems 1 or 2, or Digital Electronics</td>
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<td>One or more of the following:</td>
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<tr>
<td>- Mr. Kemp</td>
<td></td>
<td></td>
<td>- Intro to Engineering</td>
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<td>- Analog Electronics</td>
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<td>- Computer Assisted Design</td>
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<td></td>
<td>Or permission of lab director</td>
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<tr>
<td><strong>Microelectronics</strong></td>
<td>Analog Electronics Digital electronics</td>
<td></td>
<td>One or more of the following:</td>
</tr>
<tr>
<td>- Mr. Bell</td>
<td></td>
<td></td>
<td>- Intro to Systems Engineering</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Automation and Robotics</td>
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<td>- Prototyping</td>
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<td>- Audio Electronics</td>
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<td></td>
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<td></td>
<td>- Microprocessors System Design</td>
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<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td><strong>Neuroscience</strong></td>
<td>AP Biology Neurobiology</td>
<td></td>
<td>One or more of the following:</td>
</tr>
<tr>
<td>- Dr. Cammer</td>
<td></td>
<td></td>
<td>- Digital and/or Analog Electronics</td>
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<td></td>
<td></td>
<td></td>
<td>- DNA Science 1</td>
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<tr>
<td></td>
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<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td>Laboratory</td>
<td>Prerequisite</td>
<td>Co-requisite</td>
<td>Recommended</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Optics and Modern Physics - Mr. Latham</td>
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<td>One or more of the following:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Advanced Optics</td>
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<td></td>
<td>• Quantum Physics with Nanotechnology</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Computational Physics</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td>Oceanography and Geophysical Systems - Mrs. Wu</td>
<td></td>
<td></td>
<td>One or more of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Marine Biology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• DNA Science 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Robotics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Or permission of lab director</td>
</tr>
<tr>
<td>Prototyping and Engineering Materials - Mr. Behling</td>
<td>Nature of Materials and/or Prototyping Development</td>
<td></td>
<td>• CAD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Or permission of lab director</td>
</tr>
</tbody>
</table>
## Articulation of Academic Goals (CIRPSICSR\(^1\))

<table>
<thead>
<tr>
<th>Proposed changes - what</th>
<th>Proposed changes - when</th>
<th>Proposed changes - why</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Horizontal in xx Division(^2) – grade y or course z</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vertical in xx Division(^3)</strong></td>
<td>Increase number of meetings/opportunities for students to visit the College and Career Center throughout their years here at TJ</td>
<td>10(^{th}) grade (2008-2009)</td>
</tr>
<tr>
<td><strong>School-wide</strong></td>
<td>Additional 8(^{th}) period informational activities – summer engineering programs and medical school programs</td>
<td>2008-2009</td>
</tr>
</tbody>
</table>

---

1 –This is an acronym for Critical Inquiry and Research, Problem Solving, Intellectual Curiosity, and Social Responsibility

2 - Includes shared topics and activities/projects in all sections of a course/grade level

3 - Also includes essential knowledge and division specific skills and values necessary for vertical articulation
### Academic Goals Curriculum Team Recommendations – **Foreign Language**

<table>
<thead>
<tr>
<th>Articulation of Academic Goals (CIRPSICR)</th>
<th>Proposed changes - what</th>
<th>Proposed changes - when</th>
<th>Proposed changes - why</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Horizontal in xx Division²</strong> – grade y or course z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vertical in xx Division³</strong></td>
<td>Redesign POS topics to include CIRPSICR</td>
<td>9-12 in levels 2-Upper Level Beginning Sept. 2008</td>
<td>Increase Cultural Understanding through research and problem solving. The POS would not change but be enhanced. Ex. Become familiar with typical housing in countries of target language. Research “why” housing exists as it does. Are changes underway in that country? Why? Does it solve a problem? What problems still exist? Do you see solutions? Social Responsibility – use of personal space, historical and cultural reasons will be investigated.</td>
</tr>
<tr>
<td><strong>School-wide</strong></td>
<td>Open 8th period activities may be offered for students to continue study of other cultures. These activities will be available to all students and not just students who study a particular target language.</td>
<td>2008-2009</td>
<td>Increase understanding of world issues.</td>
</tr>
</tbody>
</table>

1 – This is an acronym for Critical Inquiry and Research, Problem Solving, Intellectual Curiosity, and Social Responsibility
2 - Includes shared topics and activities/projects in all sections of a course/grade level
3 - Also includes essential knowledge and division specific skills and values necessary for vertical articulation
<table>
<thead>
<tr>
<th>GRADE → SKILLS &amp; VALUES ↓</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Critical Inquiry and Research</strong></td>
<td>Beginning and intermediate levels: open ended questions relating to pitch, tone, intensity, style, rhythm, physical approach to singing and playing</td>
<td>Advanced and Artist levels: Self-assessment and finding models Emulating those models which demonstrate positive aspects of these characteristics and fundamentals</td>
</tr>
<tr>
<td><strong>Problem Solving</strong></td>
<td>Identification of basic music problems through self-assessment and assessment of others</td>
<td>Self-direct and model for others working toward being self-sufficient</td>
</tr>
<tr>
<td><strong>Intellectual Curiosity</strong></td>
<td>Encouraging students to discover a musical language to begin asking questions relating to improvement of performance and all elements</td>
<td>Discovering musical elements working together as a system and understanding the system.</td>
</tr>
<tr>
<td><strong>Social Responsibility</strong></td>
<td>Etiquette and Contribution</td>
<td>Balancing competitive forces with social forces</td>
</tr>
<tr>
<td>GRADE → SKILLS &amp; VALUES ↓</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td>Critical Inquiry and Research</td>
<td></td>
<td>Research effects of alcohol drinking and driving in Drs Ed. Research Data from VDot Research in Phys.Ed to come up with a personal fitness plan based on scientific principles</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Game situation, Skill acquisition, strategies during games. Fitness. Set Goals and Determine how to reach goals. Drs. Ed. Skid recovery, driving in poor conditions and emergency situations</td>
<td></td>
</tr>
<tr>
<td>Intellectual Curiosity</td>
<td>Go “outside the box” to learn and participate in new activities Lifetime health and wellness; teaching life skills Stay with current trends regarding health care Pursue a higher level of competition through interscholastic sports, college sports.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sportsmanship Respect for opponents, officials,</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>teammates Modeling respectful behavior Respect schools facilities Following rules of road for Drs. Ed. Preventing communicable diseases in the future</td>
<td></td>
</tr>
</tbody>
</table>
The math and computer science department worked all year to improve the vertical articulation between courses and implement the TJ core skills and values in each class. Enriching discussions took place through multiple division meetings, JLC, planning period meetings and the half day in-service. Each course discussed ways to align curriculum both horizontally and vertically to focus around the core skills and values. Many teachers shared with the division how they currently demonstrate core skills and values. Improvements and recommendations are included in the grid below.

<table>
<thead>
<tr>
<th>Articulation of Academic Goals</th>
<th>Proposed changes - what</th>
<th>Proposed changes - when</th>
<th>Proposed changes - why</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal: Geometry, Algebra 2, Pre-Calculus, Calculus, Multivar and Linear</td>
<td>Increase the number of open ended questions and modeling problems for each topic of study.</td>
<td>2008-2009</td>
<td>To enhance critical inquiry and intellectual curiosity.</td>
</tr>
<tr>
<td>Horizontal: Geometry</td>
<td>Develop a min-research project exploring different types of geometry.</td>
<td>2008-2009</td>
<td>To emphasize research in mathematics and hopefully trigger new exploration.</td>
</tr>
<tr>
<td>Horizontal: AB &amp; BC Calculus</td>
<td>Modify the financial unit.</td>
<td>2008-2009</td>
<td>To teach personal and social responsibility in a meaningful way for the students.</td>
</tr>
<tr>
<td>Horizontal: Linear Algebra</td>
<td>Modify applications.</td>
<td>2008-2009</td>
<td>Increase applications problems to enhance problem solving.</td>
</tr>
<tr>
<td>Horizontal: Differential Equations</td>
<td>Connect course to related physics, chemistry, etc.</td>
<td>2008-2009</td>
<td>To promote intellectual curiosity and connect other course related areas.</td>
</tr>
<tr>
<td>Horizontal: Intro Computer Science</td>
<td>Role play ethical scenarios for proper computer use</td>
<td>2008-2009</td>
<td>Increase awareness for proper computer use and social responsibility.</td>
</tr>
<tr>
<td>Vertical: Geometry, Algebra 2, Pre-Calculus</td>
<td>Revise the data analysis units in each course</td>
<td>2008-2009</td>
<td>To increase research and statistics in each mathematics course. Students need fluid exposure to statistical analysis throughout 9th, 10th and 11th grades. To help students with the analysis of data in their IBET and senior research projects.</td>
</tr>
<tr>
<td>Vertical: Algebra 2, Pre-Calculus</td>
<td>Review course content to avoid overlaps and create a more fluid transition between courses.</td>
<td>2008-2009</td>
<td>To make sure each course offers unique topics of study and can have time to enhance curriculum with additional modeling and open ended problems. To build a more solid foundations for students to succeed in future course of mathematics.</td>
</tr>
</tbody>
</table>
The Humanities Division met in their respective JLC groups this year to explore vertical articulation within the division. Only core courses within the division were asked to conduct this exercise:

Social Studies
- Grade 10 - World History and Geography II (Hum I)
- Grade 11 - AP US History (Hum II)
- Grade 12 - AP US Government and Politics

English
- English 9 (IBET)
- English 10 (Hum I)
- English 11 (Hum II)
- English 12 (AP Language and AP Literature)

The format chosen for this exploration was a form that asked teachers what knowledge, skills, and attitudes students should have coming into their course and what knowledge, skills, and attitudes students should possess upon leaving their course. In this way, any similarities or gaps could be identified by examining the expectations of teachers before and after each core course.

For the most part, teachers followed the expected format. In a few cases, the feeling was that the format did not adequately address the unique characteristics of a particular course and those teachers choose a different path to address essentially the same questions. Despite these different approaches, however, the end result is proving beneficial to the division.

It is apparent that the Humanities Division provides students with a substantial foundation in TJ values and skills in IBET and Hum I courses. In grades 11 and 12 further expansion and deeper exploration occurs in these later years and courses. Credit must be given to the Division’s IBET and HumI teams for their excellent work in instilling TJ students with the requisite knowledge, skills, and attitudes for future success in the humanities at this school.

The vertical articulation efforts attached here will continue to be examined to identify the gaps and overlaps that may exist among courses. There has been much accomplished, but further work and development remains.
Humanities Division Vertical Articulation Summary

SOCIAL STUDIES

10th Grade – World History and Geography II (Hum I)

Upon leaving this course, students will be able to:

- identify a problem and prioritize solutions
- organize, categorize, and synthesize information and data to make meaning
- create and interpret maps, diagrams, tables, charts, graphs, and spreadsheets
- assess the significance of past examples of change
- identify global patterns and processes over time and space
- make valid comparisons within and among societies, including comparing societies’ reaction to global processes
- realize that at any given time or place, depending on who you ask, there are multiple perspectives, multiple “truths”
- foster a sense of historical empathy
- develop a sense of chronological reasoning
- relate current events in an historical context and understand the concept of “change over time”
- recognize diversity in historical interpretations
- understand and articulate the ethical implications of their actions and opinions

11th Grade – AP US History (Hum II)

Coming into this course, students are expected to know:

- world history 1492-present from the perspective of countries outside of the United States

Coming into this course, students are expected to be able to:

- utilize and understand primary and secondary sources
- write an historical expository essay
- write a coherent, well-organized thesis paragraph
- perform a close reading of historical texts
- categorize primary sources
- recognize point of view in historical texts/documents
- present and defend a position (basic presentation skills)

Coming into this course students are expected to have the following intellectual dispositions:

- students will be interested in learning and disciplined in terms of completing work and class participation
Leaving this course, students will know:
- the history of the United States in accordance with the AP US History curriculum

Leaving this course, students will be able to:
- analyze
- argue
- interpret
- contextualize
- compare
- synthesize
- use chronological reasoning
- write an historical analytical essay
- write a document based question answer
- distinguish and use significant factual information to defend a thesis
- use historical identifications

Leaving this course, students will have the following intellectual dispositions:
- open-mindedness and the ability to comprehend different perspectives
- recognize *presentism* (judging historical events from current perspectives)
- history is huge—you will never know it all

**12th Grade – AP US Government and Politics**

Coming into this course students should know:
- the Constitution – principles and structure, three branches, checks and balances, separation of powers, interpretations of the Constitution, ratification process, Federalist Papers, and why the Constitution was written in the first place
- the Declaration of Independence – reasons for it, basic principles
- major Court cases – Brown, Marbury, Roe, Dred Scott, Plessey, US v. Nixon
- the concept of Federalism
- expansion of the federal government during the New Deal and Great Society eras
- recent American and world history within in their lifetimes – 1980-present

Coming into this course, student should be able to:
- conduct research fundamentals beyond Google and Wikipedia
- present information orally
• use a Power Point presentation effectively
• write an essay and proof and edit their own papers
• manage their time wisely

Coming into this course, students are expected to have the following intellectual dispositions:
• writing matters
• an appreciation of and respect for diverse views
• curiosity
• current events and AP government are not separable, to stay informed

Leaving this course, students will know:
• the effect of government in their daily lives
• American political system and processes
• points of access in the system

Leaving this course, students will be able to:
• understand and analyze current events
• utilize critical reading and critical viewing skills of political media
• assess the validity of sources
• process data beyond a superficial rendering

Leaving this course, students will have the following intellectual dispositions:
• greater appreciation for their role in political system
• a healthy skepticism not cynicism
• government is made up of the people; it is not them but us

ENGLISH

English 9 – IBET

Coming into this course, students are expected to know:
• how to be independent readers of a variety of genres

Coming into this course, students are expected to be able to:
• interact in a civil way with others
• be competent in grammar and punctuation
Coming into this course, students are expected to have the following intellectual dispositions:

- a desire to be challenged
- willingness to engage peers in a constructive, positive way

Leaving this course, students will know:

- the basics of textual and stylistic analysis
- core texts: the *Odyssey*, and *Romeo and Juliet*
- methods and skills for writing

Leaving this course, students will be able to:

- develop questions for research
- use databases for research and select data applicable to their research questions
- write literature review of research
- integrate quotes and follow other conventions of the APA format
- develop and deliver presentations
- read closely to make informed observations
- analyze text for development of ideas, character, and cultural insights
- write in a range of genres for audiences and purposes, including with a scientific voice

Leaving this course, students will have the following intellectual dispositions:

- intellectual curiosity
- an appreciation of different researchers work
- awareness of purpose and audience
- be critical of their own research based on the work others
- be able to problem-solve
- an appreciation of the benefits of collaboration
- independence in selecting topics for writing and research
- strong study habits

**English 10 (Hum I)**

Coming into this course, students are expected to know:

**Texts:**

- Familiarity with *Odyssey*, *Romeo and Juliet* and Shakespeare’s stage, non-fiction

**Style and Grammar:**
• Recognition of complex sentence structure and basic grammatical components of sentences
• Some experience with technical writing
• General awareness of technical correctness in writing

Coming into this course, students are expected to be able to do:
Reading and Communicating:
• Read for main ideas
• Make supported generalizations
• Write/speak comfortably about personal response to literature
• Write comfortably through journaling
• Write personal narrative
• Write a clear, organized paper
• Be able to decipher new vocabulary from contextual information
• Give clear, interesting oral presentations, attending to audience

Research:
• Integrate research effectively into an essay
• Make effective use of the library resources, especially databases; science skills can be applied to other academic areas of study
• Identify bias in a source
• Identify primary and secondary sources
• Use www.turnitin.com?

Citation:
• Follow APA style

Coming into this course, students are expected to have the following intellectual dispositions:
• See connections in Humanities, i.e., how the art and culture of a time and its political events are related
• Recognize writing as a process
• Interest in questioning
• Curiosity
• Willingness to collaborate
• Ambition
• Sense of humor
• Love learning

Leaving this course, students will know:
Texts:
• A survey of world literature with some specific in-depth reading experiences; see Core Curriculum
• Basic understanding of Biblical literature
• Basic understanding of critical schools/lenses

Themes:
• Basic familiarity with a range of western and non-western literature

Genres:
• Experience with a wide variety of styles and genres, both in world literature and in the students’ own experience

Citation:
• How to follow MLA style

Leaving this course, students will be able to do:
Research:
• Frontload intellectual investment to make effective use of a multi-step process
• Use databases for humanities research; expand on skills
• Expand interview skills
• Continue to refine reviewing bias and verifiability in sources
• Analyze primary source material as evidence for research papers
• Ability to write research paper/integrate research into an essay

Literary Analysis:
• How to analyze world literature, primarily from 1500 – the present.
• Comfort writing/speaking analysis of literature (i.e., introduction to how literary technique creates an artistic impact)
• Read for details.

Writing and Speaking:
• Write a clear, organized, interesting analytical essay based on a difficult thesis question and complex-but-true textual evidence in the elaborated code; write a cogent response with supported generalizations
• Write in reflective, persuasive, and critical modes.
• Experiment creatively with language

Leaving this course, students will have the following intellectual dispositions:
Research:
• Willingness to look at artifacts as evidence
• Recognize research as an elliptical process

Reading and Writing Dispositions:
• Recognize composition as an elliptical process

Academic and Intellectual Dispositions:
• Interest in influence of context on text and vice versa
• Understand the life-long value of the English curriculum and modes
• Curiosity/interest in questioning
• Be skeptical
• Be critical—see literature as a product of a unique culture at a given time and place yet universal
• Interest in answering their own questions

Interpersonal Dispositions:
• Willingness to collaborate and problem-solve

Personal Dispositions:
• Ambition
• Sense of humor
• Love learning
• Commitment to meta-cognitive learning
• Respect for self and others
• Accountability and integrity

English 11 (HumII)

Knowledge and Skills (Note: content and skills are interwoven in English)

Reading
• Read critically to discover major themes, elements of style, figurative language
• Read critically not only to comprehend the plot but to discover themes, elements of style,
• Become familiar with various genre: the novel, works of nonfiction, poetry, plays, short stories
• To understand the relationship between content and the effects created by various genre
• To see how ideas are treated in different texts (such as The American Dream, Individualism)
• Being able to see how the historical context informs the work
• To understand how a work is constructed on a stylistic level (close reading)
• To understand the conscious choices writers make to create a strong voice
• Reading to identify contradictions and problems in the writing, reading to find things that don’t seem to make sense, delving into ambiguity
Writing

- To develop a strong personal voice through studying an author’s conscious choices in style
- To have written in a variety of different styles for a variety of different purposes (analytic, persuasive, imaginative, etc.)
- Writing to learn and understand, to formulate ideas, and to ask and answer questions
- To be able to formulate a strong, arguable thesis and defend it with sufficient evidence in a logical structure
- To write to a high technical and mechanical standard with ease and fluency.

Research

- To understand that starting with what you already know and understand is a valuable step in research
- To understand that reformulating, changing questions, and discovering what you really want to research are all part of the process—being open to an evolving thesis or even an evolving topic
- To be able to use MLA format correctly and responsibly to avoid both intentional and unintentional plagiarism
- To find information efficiently using a variety of print and electronic sources, including the database options
- To be able to manage the information you find by developing a personal system
- To be able to assess the value of different sources, checking for accuracy, reliability, and bias
- To produce a work that communicates your findings clearly and fairly and engagingly

Speaking/Presentation

- To use talk to explore literature and ideas in small groups and as a whole class
- To present or speak in a variety of situations
- To lead a small group or a whole class in understanding a topic
- To learn to work with a variety of people in small group projects
- To become comfortable speaking in front of a group
- To make effective formal presentations taking into account body language, eye contact, volume, etc.
- To participate effectively in a class discussion, to disagree appropriately, to avoid dominating the discussion
- To be a good audience member: engaged and attentive
- To develop performance skills related to theater and poetry
- Creative Speaking Activities: Salon, Coffee House, Samuel Johnson’s dictionary activity, Game Shows, Talk Shows, Trials, Panel Discussions

Attitudes

- Creating active curious readers who will ask their own question and seek their own answers
- Creating skeptical readers who look deeply into a text and take the narrator’s biases into account
- To recognize the writing process requires revision and time management skills and to understand how to manage long term projects: thinking ahead, allowing time for revision, managing time, learning to break a project into parts, learning to meet interim deadlines, learning the process, learning to keep up with deadlines and know when things are due
• Create critical readers who appreciate ambiguity
• To consider themselves writers who make intentional, conscious choices
• To value writing process and the need for revision and sharing writing with peers
• To reflect on and describe the process you went through to do something or create something

**English 12 (AP Literature)**

Coming into this course, students are expected to know:
• World History (including role of the United States in the world throughout history and different forms of government used throughout the world)
• United States History (including foundations of American Government, presidential decision making, critical elections, and civil rights history)
• English Language and Literature (including the core readings in IBET, HUM I, and HUM II English curricula)

Leaving this course, students will know:
• Major novels, essays, poetry, and drama of literary merit
• Sophisticated methods of literary analysis

Coming into this course, students are expected to be able to:
• Conduct research, including how to use databases and analyze primary sources
• Give oral presentations
• Produce and conduct effective Power Point presentations
• Evaluate/critique source quality and bias; cite sources
• Revise
• Use writing to learn and reflect (journal entries, response logs)
• Make effective use of writing groups
• Use cooperative groups for projects
• Support their ideas both orally and in writing

Leaving this course, students will be able to:
• Read a major work of literary merit, analyze it independently, develop their own interpretation, intellectually challenge their own (and others’) ideas, and write a convincing and well-organized critique of the work.
• Write a substantial paper that sustains an in-depth, extended argument
• Communicate their understanding and insights creatively, clearly, and effectively to a variety of audiences, both orally and in writing, using appropriate technology and writing skills.
Coming into this course, students are expected to have the following intellectual dispositions:

- A view of writing as a useful tool for learning, developing understanding over time, and for communicating ideas
- A desire and demonstrated ability to work ethically
- Open-mindedness and civility in written and spoken discourse
- Willingness to take intellectual risks
- Patience and commitment in their research and writing processes

Leaving this course, students will have the following intellectual dispositions:

- Curiosity about and appreciation for the different ways in which individuals (and they themselves) approach and make meaning of literary works
- Understanding of different genres from attempts at writing in those genres
- Appreciation for and dedication to the close reading and analysis of literature as a means of establishing the viability of a literary interpretation
- Independence in their ability to read, critically examine, understand, and develop their own interpretations of literary works
- Interest and willingness to take intellectual risks – and to assess fully their learning from those risks

**Topics in Globalization (AP Government and AP Language) – 12th Grade**

Coming into this course, students are expected to know:

- World History (including role of the United States in the world throughout history and different forms of government used throughout the world)
- United States History (including foundations of American Government, presidential decision making, critical elections, and civil rights history)
- English Language and Literature (including the core readings in the HUM I and HUM II English curriculum)

Leaving this course, students will know:

- AP Government Topics
- AP English and Composition Topics
- Contemporary challenges facing the global community

Coming into this course, students are expected to be able to:

- Research, including how to use databases and analyze primary sources
- Oral presentations
- Effective Power Point presentations
- Evaluation/critique of source quality and bias and to have a foundation in citation of sources
- Revisions
• Written journals and reflections
• Cooperative work in writing groups
• Group projects collaboratively
• Support a point (orally and written)

Leaving this course, students will be able to do to:
• Deeply examine, research, and, using all of their experience, intellectually grapple with selected complex global problems in order both to provide and to evaluate creative and practical solutions
• After examining current global problems and proposed solutions and locating evidence from a variety of sources, students will apply critical thinking, clear reasoning, keen evaluation skills, and consideration of the ethical issues inherent in all aspects of the problems, in developing their solutions
• Students will communicate their understanding, reasoning, and solutions, creatively, clearly, and effectively to a variety of audiences, both orally and in writing, using appropriate technology and journalistic skills. Our students will not only be able to develop and communicate, with the highest degree of sophistication, clarity and quality, authentic solutions, but will be also be open and willing to give and receive incisive, critical feedback.

Coming into this course, students are expected to have the following intellectual dispositions:
• Work in an ethical manner.
• Demonstrate curiosity about international affairs
• Be open to taking intellectual risks
• Exercise patience with research and the writing process

Leaving this course, students will have the following intellectual dispositions:
• Because of the authentic nature of the problems students will explore in this class, there may, in many cases, be a lack of information, unforeseen dilemmas, and no “right answer.” Students will have opportunities to adapt appropriately and creatively to such situations.
• Students will be intellectual risk takers.
• Students will have reflected on the following essential questions:
  o What does it mean to be a global citizen?
  o Look in the mirror: is the U.S. a Hero or an Ogre? And, how does the world see the United States?
  o Developing and developed: Why is the gap so big? Does it matter?
  o How will Globalization personally affect you beyond June 14, 2008?

**AP Literature**

Coming into this course, students are expected to know:
• World History (including role of the United States in the world throughout history and different forms of government used throughout the world)
• United States History (including foundations of American Government, presidential decision making, critical elections, and civil rights history)
• English Language and Literature (including the core readings in IBET, HUM I, and HUM II English curricula)

Leaving this course, students will know:
• Major novels, essays, poetry, and drama of literary merit
• Sophisticated methods of literary analysis

Coming into this course, students are expected to be able to:
• Conduct research, including how to use databases and analyze primary sources
• Give oral presentations
• Produce and conduct effective Power Point presentations
• Evaluate/critique source quality and bias; cite sources
• Revise
• Use writing to learn and reflect (journal entries, response logs)
• Make effective use of writing groups
• Use cooperative groups for projects
• Support their ideas both orally and in writing

Leaving this course, students will be able to do to:
• Deeply examine, research, and, using all of their experience, intellectually grapple with major works of literary merit
• Communicate their understanding and insights creatively, clearly, and effectively to a variety of audiences, both orally and in writing, using appropriate technology and writing skills.

Coming into this course, students are expected to have the following intellectual dispositions:
• A desire and demonstrated ability to work ethically
• Open-mindedness and civility in written and spoken discourse
• Willingness to take intellectual risks
• Patience and commitment in their research and writing processes

Leaving this course, students will have the following intellectual dispositions:
• Curiosity about the different ways in which individuals approach and make meaning of literary works
• Appreciation for and dedication to the close reading and analysis of literature as a means of establishing the viability of a literary interpretation
• Independence in their ability to read, critically examine, understand, and develop their own interpretations of literary works
• Interest and willingness to take intellectual risks – and to assess fully their learning from those risks
Students will have reflected on the following essential questions:
  o  What does it mean to be a global citizen?
  o  Look in the mirror: is the U.S. a Hero or an Ogre? And, how does the world see the United States?
  o  Developing and developed: Why is the gap so big? Does it matter?
  o  How will Globalization personally affect you beyond June 14, 2008?