# A NEW DIRECTION IN EDUCATION



## **ELEMENT A: DESCRIPTION OF THE EDUCATIONAL PROGRAM**

"New West has been an amazing school. My daughter is graduating this year and I must say that I am going to miss the school, the teachers and the staff. The entire 3 years that my daughter has attended has been academically challenging for her, yet she has excelled in each and every subject. I just wish that she could continue with their rigorous program beyond middle school." Parent Review, 2010

#### **New West Charter Vision**

New West Charter High School (NWCHS) is a promising vision of a driven, academic family whose central objective is to continue to inspire and prepare all students to continue education after high school at a four- year university. Beginning in 1999, New West Founders worked tirelessly to create a small, high quality, public middle school on the Westside of Los Angeles and having accomplished that small feat, these same individuals now want to give birth to a most desired, much needed public high school cultured on the same foundation and standards. This vision shall be an extension of New West Charter Middle School's vision, which produced a model middle school that combined proven best practices and cutting-edge innovations to teach children most effectively. This current practice, developed through the efforts of a dedicated and creative family of students, staff, parents and community supporters, will continue to produce a school culture with elevated academic, social and professional expectations and achievement indicators. The goals for a high school, then, are to one, to re-locate operations for both a middle and high school (6-12th grade) to a new 50,000 square feet location at 1905-1915 Armacost Avenue, Los Angeles, CA 90025; and two, to further strengthen the academic standards and opportunities on campus, operate economically and efficiently, be responsive to the needs of our student body and parents, reward excellence in instruction, rise to the technology and the times in which we live, and promote character and personal values in our students.

With all this in mind, NWCHS is a small Learning community with standards for high school graduation higher than State requirements and a system of providing personalized learning experiences for students that supports individual goals and learning styles. It is a multicultural environment pledged to continue its blend of traditional academic subjects with real world, technical applications, critical thinking skills, and nourishing independent scholars at a secondary level. The high school's Guiding Principles will be the same as New West Charter Middle School's, which are: 1) The students are the school's number one priority and guiding principles; 2) Strong character development, honesty, respect and integrity for all members of the NWCHS community; 3) Academic rigor and excellence throughout the four years of academia and beyond; 4) Student, Parent & New West Faculty & staff accountability to NWCHS vision; and 5) A joyous, memorable and yet, scholarly environment students will contribute to, bask in and be

competent in. It is the academic family's intent to support the learning environment we create and emphasize academic progress as well as academic success. We wish to sustain our nurturing school environment that reflects cultural diversity and transformation that responds to special needs, is safe, interactive, and emphasizes service and leadership among students, staff and parents.

The shareholders of NWCHS understand that in this endeavor we will continue to recognize the crucial role of both traditional and leading-edge educational techniques as we seek to meet the needs of the able and the gifted, as well as developing and special needs students. As an independent charter school program, NW has been able to and will continue to make the necessary changes to meet our students' needs. Through the outstanding leadership of our Executive Director and administration, and the talents of our effective teaching staff, and excellent classified employees, we are progressively building a middle school model that has become a design for others in public education who seek solutions in today's world and we view this charter high school as an ongoing opportunity to develop new ideas and experiment with educational approaches.

Naturally, it is to be expected, even encouraged, that NWCHS's education program evolves over time as the Charter School's educators determine that it would be best to add, delete, or revise various policies, procedures, or practices in the best interests of the Charter School's students. Accordingly, the role of the Educational Study Panel is now filled by the Charter School's Executive Director/Principal, Assistant Principal and teaching staff as part of their regular duties and ongoing professional development activities. NWCHS intends to continue learning from other successful charter high schools, such as High Tech High Los Angeles, Granada Hills Charter High School, Animo Venice Charter High School and Summit View High School, as well as from its own experiences in order to maintain and further improve a high level of student learning and to enable pupils to become self-motivated, competent, lifelong learners.

We want to continue to have enough flexibility to make other important modifications in the future. The roadmap of this element will continue to help us reach our vision of preparing all our students for a successful future. We have a long-standing and steadfast commitment to school reform and improvement, and have proven so with the consistent rise of our AYP scores each year at the middle school level. By granting New West a high school charter, we reaffirm our commitment to a rigorous and relevant high school experience for all students. We will foster a high school environment with elevated standards of behavior, dress, and respect for authority. We will have a school curriculum and schedule that supports academic success for all students. We have an educational program that tests and verifies, tutors and reviews, in an effort to "leave no child behind."

We continue to be accountable and responsible for the way we use time. We have considered different configurations of the school day. We continue to serve our community and provide opportunity enrollment for students who may live outside of our residential area while maintaining our current diverse ethnic balance. We examine our facilities and our school community on an ongoing basis so that our campus is not dangerously overcrowded or under supervised.

NEW WES	ST CHARTER HIGH SCHOOL'S GRADUATION REQ	UIREME	INTS
SUBJECT	NWCHS	CA REQ	UC REQ
English	4 years = Freshman 9, Freshman Composition or Enriched Composition, World Literature, American Literature, Advanced Composition & British Literature		4 years
Mathematics	4 years = Algebra, Geometry, Algebra II, Trig/Pre-Calculus, Calculus, & Probability & Statistics		4 years
Social Sciences	3 years = World History, United States History, American Government & Economics	3 years	3 years
Sciences	3 years = Biology, Chemistry, Physics, Health, Environmental Science	2 years	3 years
Foreign Language	2 years = Spanish 1 A/B; Spanish 2 A/B. Other languages will be available according to student interest.	1 year of FL or VPA	2 - 3 years
Visual/ Performing Arts	2 years = Photography 1 A/B; Photography 2 A/B, Music, Drama, Advanced Acting A/B, Painting A/B. This category of electives will be determined according to student interest and staff recruitment.	1 year of FL or VPA	1 year
College Preparatory Electives	2 years = Economics, Introduction to Psychology, Journalism 1 A/B; Journalism 2 A/B; Engineering courses; Ethnic Studies; World Religions; AVID; Art Appreciation. This rest of this category of electives will be determined according to student interest and staff recruitment.	N/A	1 year
Physical Education	2 years = Students will participate in a Physical Education curriculum for the first two years of high school to fulfill CA requirement. Any student in a sport may continue the Physical Ed course up until graduation.	2	N/A
CAHSEE	All students must pass the CAHSEE to graduate. Students who have not passed enroll in a special month long, intensive class to prepare them for reexamination.	MUST PASS	MUST PASS
NWGP Digital Portfolio	All students are required to prepare and present a digital portfolio on a yearly basis. The digital portfolio focuses on a student's pathway to high school graduation and onto college. The portfolio is researched and created in Advisory.	N/A	N/A
Note: Students support in and (i.e., ADD, au Students with	s with Disabilities usually meet all requirements. SWD students re- out of class from the teacher and/or specialists equipped to handle itistic students or physically disabled) to help them stretch to their th an IEP who need help in math, ELA and organization are put in	ceive suppl special ne highest cap Resource	lemental ed cases pability. Class.

## The 21<sup>st</sup> Century

Society in the 21st century is an informational society requiring high levels of literacy, clarity of thinking skills, and increased abilities to process information. The process of education in this society demands the development of cognitive and proficiency abilities, interpersonal skills, emotional and attitudinal predispositions, fitting character formation and strong work habits. In addition, an educated person in the 21st century is a person who can take knowledge and apply that knowledge to solve problems. Today, rote learning is not an option for an educated person. Knowledge is only the beginning of learning as it is more critical that an educated person be able to apply knowledge to solve the problems facing them. For example, computers and the Internet evolved out of the problem of not being able to attain information quickly and easy enough. While the advent of T1lines and DSL lines has made access to information easier and quicker, it has caused the new problem of providing access to this wealth of information for low-income earners, a problem known as the "digital divide." The ensuing problem is a society that is divided by those who have access and those who do not. The rules of existence have changed and the educated person has to deal with a world where technology has been created ahead of need and where passive learning is not an option.

NW recognizes this 21<sup>st</sup> society and the fact that the domain of education is broader than just formal schooling. Accordingly, NW integrates the formal schooling that takes place within its walls with a broader perspective in order to equip students to live and continue to learn in an increasingly complex and information-rich modern world. Integrating technology into existing curricula at NW means making technological tools, including computers, multimedia, the Internet, and digital input and output devices, integral to learning. Learning how and why to use a word processor to better communicate ideas or to search the Internet for information related to curricular goals and activities enhances the curriculum and teaches literacies that students will need to know and be able to use.

Thus, NW's main objective is to enable students to become self-motivated, technologically competent, life-long learners. The NW educated person needs to step from a foundation of knowledge onto a creative ledge where technology, individual "outof-the-box" tinkering, and problem solving mentality will be needed. As a model 21st century educational community, we are committed to ensuring that all students, especially under-represented populations from diverse, cultural, socio-economic and linguistic backgrounds, are provided with a meaningful, content-rich, thinking-centered, and standards-based educational experience. We believe that an educated citizen in the 21st century must have the skills and understanding to participate and work productively in a multicultural, globally-oriented environment, use technology to its full potential, will demonstrate proficiency in the standards identified by the State of California and necessary to participate and work productively, and communicate fluently in English and have access to at least one other language.

## Students educated by NWCHS

NWCHS provides for the free, nonsectarian, public education of students in grades 9-12 who desire a broad, comprehensive and challenging foundation in reading and language arts, mathematics, science, and history and social science, supplemented by a variety of

enrichment programs in the visual and performing arts, world languages, health and physical education, branches of the main core courses and extracurricular and enrichment activities designed to enhance the core curriculum. The Charter High School, which is open to any student who has entered NWCMS from the sixth grade, enrolls a multi-cultural, multi-ethnic, socioeconomically diverse student body without respect to race, gender, color, ethnicity, national origin, or disability or any other characteristic described in Education Code Section 220.

NWCHS will continue to serve the communities and families identified over the course of the past years with the Middle School and all others who wish to attend the school subject only to capacity. NWCHS seeks to attract families who have a belief in a strong home/school/community partnership and who share in the mission, vision, and guiding principles of the Charter School. NWCHS is located on a site building in Los Angeles with the capacity to house 875 students.

	2012- 2013	2013- 2014	2014- 2015	2015- 2016	D
6th	200	125	125	125	m ea
7th	125	195	125	125	be 20
8th	125	125	190	125	cl of
9th	120	110	125	160	N Sc
10th		125	110	125	te
11th			125	110	W
12th				105	st
Total	575	680	800	875	Sc
Teachers	29	35	41	47	po

Below is a chart of the perceived and estimated enrollment numbers for New West Charter for the next eight years.

> uring its five years of peration, NWCHS will atriculate a new grade level ch consecutive year. ginning with ninth grade in 012-2013. The ninth grade ass (2012-2013) will consist 120 students and will be ew West Charter Middle chool's current eighth grade ass (2011-2012). NWCHS's nth grade class in 2013-2014 ill also have 125 students and ill be New West Charter liddle School's seventh grade udents. The eleventh grade ass will be the Middle chool's incoming sixth aders with a student pulation of 125 students.

In addition, in the first year of operational planning, NWCHS's future twelfth grade population will enter New West Charter Middle School with an increased number of 200 students. These students will be a mixture from the neighboring elementary schools of Brockton Elementary and Nora Sterry Elementary. Both elementary schools will have increased opportunities to feed into New West Charter Middle School through additional admissions preferences in the public lottery. The students' entry into New West Charter Middle School will guarantee them attendance into NWCHS.

2009-2010 Elementary	y School Enrollment (%)	
	Brockton Elementary	Nora Sterry Elementary
African American	5.9	10.3
students		
Asian students	5.5	4.7
Filipino students	1.7	0.6
Hispanic or Latino students	73.4	71.8
White (not Hispanic)	10.7	10.1
Socioeconomically Disadvantaged students	71	74
English Language Learners	50.7	33.8
EL 5 <sup>th</sup> grade only	8.6	4.6

Below is a breakdown of the student population from both Brockton Elementary and Nora Sterry Elementary.

One of the strengths of NW is the school's diversity and it is our intention to continue the efforts of NW to maintain the current diverse ethnic make-up of our student body. Enrollment from the two local elementary schools and any traveling students from LAUSD will make education accessible to all students, including mid-range students, students achieving at a level significantly below their peers, gifted and talented students, students receiving special education services, limited-English proficient students, and students who are members of ethnic groups underrepresented in colleges and universities.

#### **Recruitment, Hiring and Coaching**

NWCHS believes in the recruitment and hiring of staff that reflect the community as well as in the development of the capacity of staff to meet the needs of students. Educators must approach with passion, dedication and enthusiasm, the moral challenge of ensuring the educational success of every child. Today, effective educators must be more than dedicated, talented and committed than ever before.

NWCHS believes in the power of peer coaching to develop effective leaders who have clear vision, courage and skill to take action, and confidence to include diverse perspectives in making decisions.

For NWCHS, effective leaders recruit, hire, support and develop staff that is most qualified to help all students achieve standards.

Leaders assign most qualified staff to serve students most in need. Highly qualified staff includes teachers who are certified to serve English language learners when the student population includes a significant number of English language learners.

Recruitment of staff reflects the community served.

Effective leaders proactively recruit and hire teachers and other staff who evince a strong moral principle of educational equity and excellence and dedication to achieve it.

Leaders develop capacity in themselves and others through cognitive coaching that promotes self-directed learning to enhance staff performance and improve student learning.

For NWCHS, the following chart outlines the recruitment of teachers as the school opens its doors in 2012 and continues forth.

Recruitment of NCLB Certifi	cated Teachers		
	NWCMS	NWCHS	Total Staff
Year 2012 - 2013 Grade 9	<ol> <li>English teacher</li> <li>Math teacher</li> <li>Science teacher</li> <li>Sciency teacher</li> <li>History teacher</li> <li>PE teachers</li> <li>Elective</li> <li>teachers</li> </ol>	<ul><li>2 English teachers</li><li>1 Math teachers</li><li>1 Science teacher</li><li>2 Elective</li><li>teachers</li><li>1 PE teacher</li></ul>	14 Certificated teachers
Year 2013- 2014 Grade 10	1 English teacher 1 Math teacher 1 Science teacher 1 History teacher	<ol> <li>English teacher</li> <li>Math teachers</li> <li>Science teacher</li> <li>History teacher</li> <li>PE teacher</li> <li>Elective</li> <li>teachers</li> </ol>	12 Certificated teachers
Year 2014 - 2015 Grade 11	<ol> <li>English teacher</li> <li>Math teacher</li> <li>Science teacher</li> <li>History teacher</li> </ol>	<ol> <li>English teacher</li> <li>Math teacher</li> <li>Science teacher</li> <li>Science teacher</li> <li>History teacher</li> <li>PE teacher</li> <li>Elective</li> <li>teachers</li> </ol>	11 Certificated teachers
Year 2015 - 2016 Grade 12	No Staffing needed at the middle school level	<ul><li>2 English teacher</li><li>2 Math teacher</li><li>1 Science teacher</li><li>1 History teacher</li></ul>	9 Certificated teachers

1 DE too shor
I PE teacher
2 Elective
teachers

The talented teachers recruited for NWCHS will be carefully screened so as to hire individuals ready to work tirelessly to influence and engage all students entering the high school. Teachers will be interchanged between New West Charter Middle School and New West Charter High School since the structure and policies of the schools will be the same. Moreover, the students will also be able to interact, engage and be instructed by all teachers under the New West Charter umbrella.

#### **Neighboring High Schools**

New West hopes NWCHS will be able to provide 9-12<sup>th</sup> grade students an opportunity to continue the same rigor, expectations, engagement and culture of the middle school but at a high school level. We feel that upon leaving NWCMS, our students are at a loss for rigor, for expectations and standards, for engagement with the material they are learning and for a family culture that cares, that encourages and eventually strengthens their own understanding and acceptance of the world around them.

	2008	2009	2010	Student Enrollment per
	API	API	API	year, respectively
	Base	Base	Base	
University Senior	659	671	682	1, 556; 1,617; 1,716
High School				students
Westchester Senior	603	628	647	1, 214; 1,191; 1,187
High School				students
Venice Senior High	692	705	692	1, 851; 1, 789; 1, 940
School				students

In examining the chart above, the neighboring high schools, we feel, will falter in providing our students with all these elements due to various reasons. Two of those reasons are low API scores and large student populations, which NW knows from experience means students are not held to high expectations and standards because of the enormous amount of students within the schools.

NW wants to provide their NWCMS students with a strong scholastic experience that will continue throughout their high school years and ready them for college and life.

#### The New West Culture

There is no one single way as to how learning best occurs. Students are individuals who learn in different ways. Some are auditory learners. Some are visual learners. Some can work well with a combination of both. Learning best occurs when the teacher understands the needs of each student and helps each student reach his or her potential in an environment that is accessible to all. A high interest curriculum, positive teacher guided feedback, a non-threatening environment and an atmosphere that promotes peer encouragement are essential to a true learning experience. The New West Culture holds these elements and others as a foundation for NWCHS's educational foundation and environment.

The pivotal elements driving NWCHS's educational foundation and environment are

#### Integration

Integration is built into the instructional design through the teaching team or family unit. NWCHS is constructed around family units, with each family comprised of subject teams. Teachers engage in thorough, on-going articulation within subjects and across grades as well. These meetings occur on a regularly scheduled basis.

#### Differentiated Instruction

Differentiated Instruction is key to providing for the needs of children across the educational spectrum. By altering the complexity, depth, or novelty of the subject, the teacher can convey material in a way that is appropriate for the individual child. Each student receives a rigorous, standards-based lesson without an artificial ceiling placed on learning. Teachers are also prepared to present material in a variety of ways to take into account different learning styles. Frequent assessment and review of this assessment is essential for this strategy. NWCHS begins the year with school-wide assessments and works towards a personalized approach to education for each student.

#### Scaffolding

Scaffolding Academic literacy and life-long learning skills are fostered through the use of scaffolding teaching methods. Scaffolding employs, among other tools, modeling and demonstration, bridging from known concepts and experiences to new concepts, contextualizing, and schema building to identify connections among concepts. For example, using charts, diagrams and other tools, students see the connections between topics and ideas.

#### Project Based Learning

Project-Based Learning provides a key opportunity for integration of all subjects. Families develop project themes throughout the year. Students will work in small groups to research, write, find results and identify the medium for presentation. The student team will work with the teacher to develop the different phases of the project.

#### Real World Experiences

Offer real-world experiences for students to learn about higher education and career options through curricular pathways, schools to career opportunities, community college fairs, volunteer fairs, community involvement in senior project assessments, robotics program, culinary arts program, NATEF and AYES automotive certification program and other collaboration with businesses and community.

#### High Expectations & Standards

Establish high expectations and standards for student achievement by expecting all students to master rigorous academic content, such as the A-G requirements. In addition, teachers maintain high expectations for learning of rigorous content, differentiate instruction for varied learning styles, and give students multiple opportunities to explore a rich variety of topics and interests, using instructional strategies, which actively engage students and foster curiosity and creativity, and to demonstrate their learning through various ways.

#### Assessment

Regular and accurate assessment of student progress in mastering grade-level standards is essential to the success of any instructional program and ensures quality for all students. Classroom and school assessments are based on content that every student has had the opportunity to learn and master. Decisions about instruction are driven by assessment data. Both qualitative and quantitative data (aggregated and disaggregated) are current, easily retrieved, analyzed, understood, and used to inform instruction and not to punish students or staff.

## Community Service

NWCHS incorporates community service as an integrated component of its educational program. In community service, students learn and develop through active participation in thoughtfully organized activities in the community, including but not limited to civic, charitable, social, or environmental involvement. Such participation addresses community needs, strengthens the bonds between student, school, and community, and instills personal and social responsibility. Students are required to complete 6 hours of community service by the end of the school year.

#### Small Class Size

New West believes that size counts. Teachers can address many different levels of ability and learning styles and give exemplary differentiated instruction in a classroom of 20 or less.

## Character Development

It is critical to a positive school environment and to the individual success of each student that students develop strong character and become responsible, ethical members of society. Faculty role-modeling, home school contract, discipline policy, an emphasis on personal responsibility, and the community service component all focus on this practice.

#### Parental Involvement

Key to the success of New West is strong parental involvement. NWCHS is a parentdriven charter school model, with strong parental representation on the Governing Board, a strong home-school contract, and a desire to address the needs of parents as well as students.

## Professional Learning & Development

Professional development is essential for ensuring educational equity and achievement.

While professional development about state-adopted materials is important for staff, professional learning also focuses on materials and strategies designed to close the teaching-learning gaps. For example, current research indicates that much of the improvement in math performance is attributable to professional development grounded in developing deep content knowledge and mastering effective instructional practices. As a result of teacher collaboration in the math department, teachers have come to an agreement about the adoption of a common textbook in Algebra 1, Algebra 2 and Geometry. This type of teacher collaboration will be a part of the NWCHS's professional learning and development.

#### Sustainable Building Principles

As a charter school, New West distinguishes itself through the development of exemplary environmentally sustainable practices and curriculum. "Sustainability meets the needs of the present without compromising the ability of future generations to meet their needs" - United Nations World Commission on Environment and Development.

NWCHS believes that all the above elements and more contribute to the success of high school students and their school. NWCHS hopes to enable students to become self-motivated, competent, life long learners by establishing an environment where learning is engaging and worthwhile. When students experience learning that is engaging and connects to "real world" applications, they develop a love of learning that continues far beyond high school.

### High School Core Curriculum

NWCHS has adopted a Standards-based, College Preparatory curriculum closely following the current California State Standards. NWCHS uses the standards as a floor, not a ceiling. The school ensures that students develop critical thinking skills, including but not limited to observation and analytical reasoning as well as decision- making skills to help them access, process, organize, and interpret the information that the standards present. Students are able to communicate the concepts they have learned through connections between subjects and application of the information to the real world and their own experience. Most importantly, NWCHS students draw inspiration from the curriculum to seek further information from other sources.

NWCHS analyzes the standards and has developed clear, useful and assessable guidelines for the Content Standards to be presented to students and their families, so that they may understand the grade-level expectations of NWCHS and the State. There must be no surprises. The school outlines all applicable California state standards taught in each grade level and subject areas by aligning these in a scope and sequence format.

The NWCHS core curriculum is a unique blend of education that includes the following key components:

- Core Curriculum based on the UC/CSU A-G Requirements --Upon graduation, all NWCHS students will have met or exceeded all the A-G requirements for admission to a University of California or California State University.
- Core Curriculum at high school level and college level so as to introduce students

to a higher learning

- Integration of technology into all subjects
- A focus on cross curricular projects that connect to the "real world"

Woven into these four curricular components is NWCHS's commitment to meeting and exceeding the Content Standards for California Public Schools in all curriculum areas. As stated before, NWCHS's graduation requirements will meet or exceed the National and State Standards as well as the A-G requirements of admission into the University of California and California State University.

To ensure our program and its integrity, New West will seek and apply for WASC accreditation and will prepare for site visits either in Spring 2013 or in Fall 2013. Acquiring WASC accreditation will certify to our family and the public that New West is a trustworthy institution of learning and that our students are on a direct path to an exemplary university.

The following schema outlines this educational goal:

## NWCHS COURSE OFFERINGS

## **GRADE 9 COURSES**

All ninth grade students will enroll and pass:

- English 9AB
- **@** Freshman Composition
- One of the following: Algebra AB / Geometry AB / Algebra II AB
- e Biology AB
- Physical Education
- Foreign Language: Beginning, Intermediate or Advanced

Course Completion: 3 Core Curriculum courses, 1 PE, 1 Foreign Language, & 1 elective course

## GRADE 10 COURSES

All tenth grade students will enroll and pass:

- One of the following: British Literature I AB/ Honors British Literature I AB
- One of the following: Geometry AB/ Algebra II AB/ Trigonometry/Pre Calculus AB
- One of the following: Chemistry AB/ AP Chemisty AB
- Physical Education
- **@** Foreign Language: Beginning, Intermediate or Advanced
- World History AB/ AP World History AB

Course Completion: 4 Core Curriculum courses, 1 PE, and 1 Foreign Language

## GRADE 11 COURSES

All eleventh grade students will enroll and pass:

- One of the following: American Literature AB/ AP American Literature AB
- One of the following: Enriched Composition or Advanced Composition

- One of the following: Algebra IIAB/ Trigonometry/Pre Calculus AB / Calculus AB
- One of the following: US History AB/ AP US History AB
- Q An elective Science or Fine Arts course
- An optional elective course

Course Completion: 3 Core Curriculum courses and 3 elective courses

#### GRADE 12 COURSES

All twelfth grade students will enroll and pass:

- One of the following: British Literature II AB/ AP British Literature II AB
- One of the following: Trigonometry/Pre Calculus AB / Calculus AB / AP Calculus AB
- @ American Government/Economics
- An optional elective course
- **@** An optional elective course
- **@** An optional elective course

Course Completion: 3 Core Curriculum and 3 elective courses (if the student wishes 3 extra electives)

At the completion of 4 years at NWCHS, all students will have tested and strengthened their knowledge and skills within the mandatory 17 Core Curriculum courses and 5 optional elective courses. They will be cognizant, independent, motivated scholars ready to participate in a higher learning environment to surpass all that awaits them.

NWCHS will ensure that curriculum, projects and lessons are standards-based. In addition, NW will endeavor to ensure that all courses at the high school level are transferable for other public high schools and eligible to meet college entrance requirements. Parents are informed about graduation requirements, transferability of courses to other public high schools, and the eligibility of courses to meet college entrance requirements via parent informational meetings, Parent Organization meetings, newsletters, individual meetings with the counselor and college counselor, and college representative visits.

#### **Instructional Materials**

Core Curriculum textbooks will be selected by the curriculum committee upon review and recommendation of the subject department and/or grade level team. Below are strategies for adopting instructional materials/academic supports for students in need: 1) Assess student test scores, project and homework assignments, individual strengths and weaknesses. (Data on 9th graders is collected from New West Charter Middle School scores).

2) Acquire, assess and introduce State-approved standards-based instructional materials as well as local school district instructional materials to ALL students

3) Collect materials as needed to supplement approved texts for use with ALL students, such as supplemental readers and workbooks, Internet websites, instructional kids (for

solar car and robotics design), and articles about current events, etc. 4) Collect materials appropriate for special subgroups and/or individual students and introduce to the appropriate students.

5) Continuously review the progress of each student and make necessary changes, such as switching their supplemental materials, adding more or less rigorous materials, etc.

#### **Technology in the Classroom**

NWCHS is committed to appropriately integrating technology into all areas of the curriculum and dedicated to the acquisition and support of effective educational technology that provides teachers and students real-world contexts for learning, connections to larger learning communities, and opportunities to individualize and apply learning. Our vision for instructional technology continues to be the common and equitable use of innovative technologies and communication strategies in the learning environment. Goals include:

- Implement school technology for the benefit of all stakeholders;
- Continue to pursue technology resources and manage the technology budgets effectively;
- Continually upgrade the school infrastructure, hardware, and software;
- Provide high-quality service to users on an ongoing basis;
- Implement technology solutions that will make accountable differences in instruction, assessment, and management of students as well as improve communication and collaboration.

All NWCHS students have access to both laptop and desktop computers through the two computer labs on campus -- a stationary computer lab with 25 Mac desktops and a mobile cart filled with 30 MacBook laptops. Students check computers at the beginning of class, sign on to their account and can move from classroom to classroom but use different computers to access their work due to the common server. The school is supervised one hour before school and two hours after school so that students, especially those without easy access to a computer and/or Internet outside of school, can access the technology. There is clear and successful site integration of technology in all classrooms. Staff set benchmarks in technical knowledge to be mastered in each grade level within the existing curriculum.

Students and interested parents are in-serviced on ethical uses of technology, and filters are installed to block inappropriate Internet content. Each parent/ student also signs an Acceptable Use Policy, violation of which results in suspension of computer privileges for a first offence up to expulsion for repeated offenses. Students are trained to gauge quality and reliability of websites, and teachers check student's work for plagiarism continuously. NWCHS staff works as a team to evaluate software and online resources. The Technology coordinator notifies staff if there are issues with an online resource or software.

A new addition to our technological world will be a class set of 30 Ipads for student and teacher use.

All teachers have a laptop computer to use for student information, attendance, recording grades and curricular activities. We have struggled with finding a student data system that provides ease of use for teachers but we are optimistic about our current system – CCSA's ZOOM! – in which we are one of a handful of charter schools to pilot the data system. Our goal is to provide quick and efficient access to student standardized and school benchmark test scores to assist teachers in differentiating learning and data-driven instruction. We understand that the disaggregation of data and data-tracking systems to monitor student progress are important in gaining a snapshot of student achievement at any particular time.

NWCHS continues to emphasize the application of technology to improve student achievement and access to post-secondary opportunities. We continue to explore partnerships through our resources, which will enable students to have access to the latest and most effective technology.

## New West Graduation Plan (NWGP)

A New West Graduation Plan (NWGP) is set into motion for each student when he/she enters NWCHS in the 9th grade. The NWGP is a structured plan that outlines the 22-26 courses the student must attend and pass (for High School and A-G completion, the standardized exams the student must register for and pass (CAHSEE, SATs & SAT IIs), and the application the student will complete and submit for post secondary education (if he/she chooses to do so). NWCHS's college counselor initially meets with the student and his/her parents to present them with a NWGP and to discuss the student's post secondary goals.

In 10th grade, the Student Success Team (SST), which includes the teacher advisor, other teachers, the college counselor, and parents support the student's progress from one grade to the next by providing the academic and behavioral interventions to keep them on track with his/her NWGP. The NWGP is an organic document updated every semester as sequenced coursework is completed for graduation and college readiness, CAHSEE readiness is monitored, future plans are solidified, and special needs arise (i.e. CAHSEE tutoring). NWGPs help students become college and workforce ready by focusing their attention and goals.

All Students With Disabilities (SWDs) are mainstreamed into regular classes with their state-required Individual Education Plan (IEP), and receive all allowable accommodations of their plans.

## **NWCHS's Daily Schedules**

NWCHS students will continue following three daily schedules as they did at the middle school level with slight changes. School will begin instruction at 7:30 am and end with the Advisory period at 2:30 pm. A regular 1-6 period day will shift to Mondays instead of Mondays and Tuesdays and there will, at the moment, be no minimum day. Block scheduling will cover 4 days of the week instead of 2 days and each period will be for 100 minutes.

New West Charter High School will follow three daily schedules, outlined below.

<b>Monday Sch</b>	edule
Homeroom	7:30 - 7:45
Period 1	7:49 – 8:39 (50 minutes)
Period 2	8:43 – 9:32 (50 minutes)
Nutrition	9:33 - 9:47
Period 3	9:51-10:41 (50 minutes)
Period 4	10:45 – 11:35 (50 minutes)
Lunch	11:35 - 12:09
Period 5	12:13 - 1:03 (50 minutes)
Period 6	1:07 – 1:57 (50 minutes)
Advisory	1:57 - 2:30

#### **Tuesday/Thursday Schedule**

Homeroom	7:30 - 7:45
Period 1	7:49 – 9:29 (100 minutes)
Nutrition	9:29 - 9:44
Period 3	9:48 – 11:28 (100 minutes)
Lunch	11:28 - 11:57
Period 5	12:01 – 1:41 (100 minutes)
Advisory	1:45 - 2:30

#### Wednesday/ Friday Schedule

Homeroom	7:30 - 7:45
Period 2	7:49 – 9:29 (100 minutes)
Nutrition	9:29 - 9:44
Period 4	9:48 – 11:28 (100 minutes)
Lunch	11:28 - 11:57
Period 6	12:01 – 1:41 (100 minutes)
Advisory	1:45 - 2:30

#### NWCHS Advisory Program

Each student is assigned an Advisor who will stay with the student, if possible, for the entire four-year high school span. Real education is long-term. The Advisory model forces students to focus and with the consistent guidance in the advisory period, gives them the opportunity to stretch and reach, ponder and plan, work and wait for the satisfaction of a long-term goal achieved.

An Advisory objective is for students to research colleges and careers and participate in values clarification activities. Additionally, there will be an articulation between the student and the Advisor regarding issues with academic and social progress. Educators, too, benefit as advisory guides, who, over the four-year span become intimately involved in the education of a specific student, not a name on the class roster. Educators need to assess their approach to educating students who may not be engaged in learning, have no support outside the walls of the school and/or whose early education cannot be categorized or tracked. As for the educator, this is an opportunity for them to focus on all students individually and to revisit the upclose challenges of high school years. Advisors will meet to discuss appropriate strategies for success on a daily basis.

Below is a graphic organizer illustrating how the Advisory Program will be implemented at the high school level.



The Advisory program, then, will be a crucial focus for both student and educator because it will determine the success of both participants. For the student, the Advisory program will give multiple opportunities and support to research, prepare and apply to universities and colleges so as to secure, for the student, his or her pathway in life. For the educator, the Advisory program will be another way to counsel, inspire and encourage students to find success beyond the high school walls, allowing the educator to gain fulfillment not only as a teacher but as a counselor.

#### **Meeting Student Needs**

NWCHS strives to meet the needs of all students regardless of ability or background. However, the school does not group by ability or other characteristics. All students are in the same classes regardless of their status as Gifted, Special Ed, socioeconomically disadvantaged, or achieving below grade level.

## Serving Academically Low-Achieving Students

The first step toward this goal is early identification of low-achieving or at-risk students through early assessment. For those students who are academically low performing, a range of strategies are employed. Modifications will be made, such as books on tape, so that students will still receive exposure to sophisticated literature while working on underlying building blocks of comprehension/decoding. Students work with teachers who have received training in working with diverse populations and are committed to helping them achieve academic success. Students receive additional intensive help after school as well as in smaller tutorial settings.

In other core academic areas, teachers differentiate curriculum so that all students can receive standards-based instruction appropriate to their level. After school tutorials are available in each of the core subjects to give students additional assistance. All students receive instruction in the area of study skills and time management.

New West is especially concerned about those students who are also identified at-risk because of life circumstances. The smaller size of the Charter School and the advisor-advisee program will be especially helpful to these students. Having time every day when sensitive issues can be raised, and providing a consistent, positive, caring role model, gives these young people a sense of stability, which may be lacking in other parts of their lives.

## Serving Academically High-Achieving Students

Highly capable students will be provided differentiated learning opportunities throughout the school day as well as in the after school program. Students who are well served by standards-based education are continually challenged to excel when taught by excellent teachers who have received training in strategies of differentiation. In special cases, particularly in Math, students can be invited to participate in classes, one grade level above their homeroom class.

## Serving English Learners

NWCHS will meet all applicable legal requirements for English Learners ("EL") as they pertain to annual notification to parents, student identification, placement, program options, EL and core content instruction, teacher qualifications (CELDT or other CCTC approved certification) and training, re-classification to fluent English proficient status, monitoring and evaluating program effectiveness, and standardized testing requirements. The Charter School will implement policies to assure proper placement, evaluation, and communication regarding ELs and the rights of students and parents.

#### Home Language Survey

The Charter School will administer the home language survey upon a student's initial enrollment into the Charter School (on enrollment forms).

#### CELDT Testing

All students who indicate that their home language is other than English will be CELDT tested

within thirty days of initial enrollment2 and at least annually thereafter between July 1 and October 31st until re-designated as fluent English proficient.

The Charter School will notify all parents of its responsibility for CELDT testing and of CELDT results within thirty days of receiving results from publisher. The CELDT shall be used to fulfill the requirements under the No Child Left Behind Act for annual English proficiency testing.

#### Strategies for English Language Learner Instruction and Intervention

Teachers who serve EL students will be trained to use a variety to programs, such as Specially Designed Academic Instruction in English (SDAIE) techniques and/or Sheltered English to meet the needs of English language learners. The instructional design model to be used by NWCHS places a heavy emphasis on differentiating instruction to meet the needs of English Language Learners based on their academic and language readiness. Professional development will be developed to train teachers on the variety of instructional strategies and programs to be used with all students and specifically with English Language Learners. Some of these instructional strategies include the following:

- Vocabulary and Language Development
- Guided Instruction
- Metacognition and Authentic Assessment
- Explicit Instruction
- Meaning Based Context and Universal Themes
- Modeling, Graphic Organizers and Visuals

A program for professional development is Sheltered English. Sheltered English, for example, makes academic instruction in English understandable to ELL students. In the sheltered classroom, teachers use physical activities, visual aids and the environment to teach vocabulary for concept development in mathematics, science, social studies and other subjects. Sheltered Instruction Observation Protocol (SIOP) is a popular, researchbased and validated model of sheltered instruction that is widely used and will be reviewed for NWCHS as well.

#### Special Education

NWCHS recognizes the importance of providing educational opportunities to all students regardless of physical or special needs. To that end, NWCHS will serve students with special needs in accordance with applicable federal and state law. NWCHS will comply with all applicable federal and state Special Education laws, including the discipline of such students.

The Charter School shall comply with all applicable state and federal laws in serving students with disabilities, including, but not limited to, Section 504 of the Rehabilitation Act ("Section 504"), the Americans with Disabilities Act ("ADA") and the Individuals with Disabilities in Education Improvement Act ("IDEIA"). New West shall not discriminate against any student with a disability.

The Charter School is an LEA member of the Southwest SELPA in accordance with Education Code Section 47641(a) and thus shall be solely responsible for its compliance with all state and federal laws related to the provision of special education instruction and related services and all SELPA policies and procedures; and shall utilize appropriate SELPA forms.

The Charter School shall also be solely responsible for its compliance with Section 504 and the ADA. The facilities to be utilized by the Charter School shall be accessible for all students with disabilities.

Services for Students under the "IDEIA"

NWCHS adheres to the provisions of the IDEIA and state special education laws and regulations to assure that all its students with disabilities are offered a free, appropriate public education ("FAPE").

NWCHS adheres to all applicable State and Federal law and Southwest SELPA policies and procedures regarding special education, including submission of documents and information, participation in reviews, and attendance at informational sessions and meetings. NWCHS uses Southwest SELPA forms to develop, maintain, and review assessments and IEPs in the format required by the Southwest SELPA, including assessment and inputting IEP data into the Southwest SELPA data system in accordance with Southwest SELPA polices and procedures. NWCHS maintains copies of assessments and IEP materials for review by the Southwest SELPA. NWCHS submits to the Southwest SELPA and the Authorizer all required reports, in a timely manner as necessary to comply with state and federal laws.

NWCHS develops Individual Transition Plans to help a student with disabilities, age 14 and older, in transitioning to adult living. NWCHS in conjunction with the Southwest SELPA, is responsible for the management of its special education budgets, personnel, programs, and services. NWCHS ensures that its special education personnel are appropriately credentialed or licensed as consistent with California and Federal laws and regulations.

As with all populations of students at NW, the unique instructional needs of special education students are identified early and accurately, ensuring that NWCHS complies with all child-find requirements under applicable state and federal law and SELPA policy. The referral process includes Student Success Team meetings to review prior interventions, accommodations, and modifications, and to recommend further interventions as appropriate. NW identifies and refers students who demonstrate early signs of academic, social, or behavioral difficulty that may require assessment for special education eligibility and placement in a special education program.

For students transferring to the Charter School from District schools or District affiliated charter schools, the Charter School will provide those related services required by the students' IEPs upon the students' enrollment. However, to allow for a smooth transition to independent charter schools, the District shall continue to fund services for those special education students enrolling in independent charter schools who have been

receiving non-public agency (NPA) services from the District for thirty (30) days after enrollment. This will allow the Charter School time to conduct an IEP team meeting and to execute contracts as necessary to facilitate the students' transition to the Charter School. When requested by the Charter School, a representative from the Local District Special Education Office may attend a student's first IEP meeting at the independent charter school to assist with transition issues.

The Charter School will be responsible for the development of assessment plans for students with suspected disabilities or, in the alternative, providing appropriate written notices to parents when a request for assessment is denied. The Charter School will make decisions regarding eligibility, goals, program, placement, and exit from special education by consensus of the student's IEP team.

The Charter School will ensure that the teachers and other persons who provide services to a student with disabilities are knowledgeable of the content of the student's IEP. The Charter School will ensure that student discipline and procedures for suspension and expulsion of students with disabilities are in compliance with state and federal law. Discipline procedures will include positive behavioral interventions. In accordance with the Modified Consent Decree, the Charter School will collect data pertaining to the number of special education students suspended or expelled.

#### Procedural Safeguards/Due Process Hearings

The SELPA may invoke dispute resolution provisions set out in a charter, initiate due process hearings, and/or utilize other procedures applicable to the Charter School if the SELPA determines that such action is legally necessary to ensure compliance with federal and state special education laws and regulations or the Modified Consent Decree. In the event that a parent or guardian of a student attending the Charter School initiates due process proceedings, both the Charter School and the SELPA will be named as respondents.

Whenever possible, the SELPA and the Charter School shall work together in an attempt to resolve the matter at an early stage (informal settlement or mediation). During due process proceedings and any other legal proceedings or actions involving special education, the Charter School will be responsible for its own representation. If the Charter School retains legal representation for a due process proceeding or other legal proceeding or action, the Charter School will be responsible for the cost of such representation.

Because the Charter School will manage, and is fiscally responsible for, its students' special education instruction and services, the Charter School will be responsible for any prospective special education and related services, compensatory education and/or reimbursement awarded by a due process hearing officer, court or settlement based on an allegation or allegations that the Charter School failed to fulfill its responsibilities under state and federal special education laws and regulations (which include, among other things, identifying students with disabilities, assessing students, conducting IEP team meetings, developing appropriate IEPs, and implementing IEPs).

If parents' attorneys' fees and costs are to be paid because parents are the prevailing party as a result of a due process hearing or settlement agreement based on the Charter School's alleged failure to fulfill its responsibilities under state and federal special education laws and regulations, the Charter School will be responsible for payment of those attorneys' fees and costs.

The Southwest SELPA will collect an equitable encroachment contribution from independent charter schools for district-wide costs for special education instruction and services. District-wide costs include: 1) maintaining a full continuum of program options; 2) professional development and training; 3) technical support for programs; 4) administration of due process proceedings, excluding any legal representation; 5) investigation of complaints; and 6) implementation of the Modified Consent Decree. The annual encroachment percentage collected may vary from year to year depending on the district-wide encroachment. The calculation of the encroachment contribution shall be based upon a formula designed by the District's Budget Services Office.

#### Section 504 of the Rehabilitation Act

The Charter School recognizes its legal responsibility to ensure that no qualified person with a disability shall, on the basis of disability, be excluded from participation, be denied the benefits of, or otherwise be subjected to discrimination under any program of the Charter School. Any student, who has an objectively identified disability which substantially limits a major life activity including but not limited to learning, is eligible for accommodation by the Charter School.

A 504 team will be assembled by the Executive Director/Principal and shall include the parent/guardian, the student (where appropriate) and other qualified persons knowledgeable about the student, the meaning of the evaluation data, placement options, and accommodations. The 504 team will review the student's existing records; including academic, social and behavioral records, and is responsible for making a determination as to whether an evaluation for 504 services is appropriate. If the student has already been evaluated under the IDEIA but found ineligible for special education instruction or related services under the IDEIA, those evaluations may be used to help determine eligibility under Section 504. The student evaluation shall be carried out by the 504 team, which will evaluate the nature of the student's disability and the impact upon the student's education. This evaluation will include consideration of any behaviors that interfere with regular participation in the educational program and/or activities. The 504 team may also consider the following information in its evaluation:

- Tests and other evaluation materials that have been validated for the specific purpose for which they are used and are administered by trained personnel.
- Tests and other evaluation materials including those tailored to assess specific areas of educational need, and not merely those which are designed to provide a single general intelligence quotient.
- Tests are selected and administered to ensure that when a test is administered to a student with impaired sensory, manual or speaking skills, the test results accurately reflect the student's aptitude or achievement level, or whatever factor

the test purports to measure, rather than reflecting the student's impaired sensory, manual or speaking skills.

The final determination of whether the student will or will not be identified as a person with a disability is made by the 504 team in writing and notice is given in writing to the parent or guardian of the student in their primary language along with the procedural safeguards available to them. If during the evaluation, the 504 team obtains information indicating possible eligibility of the student for special education per the IDEIA, the 504 team will make a referral for assessment under the IDEIA.

If the student is found by the 504 team to have a disability under Section 504, the 504 team shall be responsible for determining what, if any, accommodations or services are needed to ensure that the student receives a free and appropriate public education ("FAPE"). In developing the 504 Plan, the 504 team shall consider all relevant information utilized during the evaluation of the student, drawing upon a variety of sources, including, but not limited to, assessments conducted by the Charter School's professional staff.

The 504 Plan shall describe the Section 504 disability and any program accommodations, modifications or services that may be necessary.

All 504 team participants, parents, guardians, teachers and any other participants in the student's education, including substitutes and tutors, must have a copy of each student's 504 Plan. The site administrator will ensure that teachers include 504 Plans with lesson plans for short-term substitutes and that he/she review the 504 Plan with a long-term substitute. A copy of the 504 Plan shall be maintained in the student's file. Each student's 504 Plan will be reviewed at least once per year to determine the appropriateness of the Plan, needed modifications to the plan, and continued eligibility.

#### **Enrichment and Extracurricular Programs**

New West provides in-school enrichment programs and after-school extracurricular activities, which are part of the Charter School's overall educational plan. These programs and activities supplement and complement classroom instruction in the core academic areas, and provide ancillary experiences for students that broaden their skills, knowledge, and attitudes in areas not addressed by New West's formal curriculum. The nature and schedule of activities varies as parents come and go, as community members volunteer their time, as the educational needs and expertise of classroom teachers evolve, and as the interests and talents of the student body change from year to year.

#### School Clubs & Off Campus Sports

Studies have shown that students who participate in extra-curricular activities learn to budget their time more efficiently, demonstrate greater classroom achievement and learn to work with many different people. To be eligible for participation, students must meet NW academic and attendance requirements as well as student conduct expectations. To maintain eligibility for participation in NW extracurricular activities, students must conduct themselves as good citizens both in and out of school at all times. Students who represent the school in an activity are expected to serve as good role models to other students and to members of the community.

The school clubs at NWCHS will be founded through student interest, have a NWCMS or NWCHS teacher as advisor and will be considered extra-curricular activities. They will be created as the school progresses and have a brief description of what the group is, what they do, what the requirements for membership are, and the time requirements required for membership. Besides being fun, these activities may help the students get accepted into college, earn college scholarships, allow the students to better their community, give the students an opportunity to help others, and serve as a great place to meet others with similar interests.

Similarly, Athletics will be founded off campus so as to provide students with an opportunity to find talent and strength within various sports teams and competitions. Sports help children develop physical skills, get exercise, make friends, have fun, learn to play as a member of a team, learn to play fair, and improve self-esteem. NWCHS will, of course, require the Pre-Participation Physical Exam (PPE) as an important step toward safe participation in organized sports. It is important to understand that the purpose of the PPE is not to disqualify or exclude an athlete from competition, but to help maintain the health and safety of the athlete in training and competition. NWCHS will hope to offer sports in winter, spring and summer, according to what sports competitions are available for participation.

#### ELEMENT B: MEASURABLE STUDENT OUTCOMES

My daughter is in 8th grade at New West and her sister graduated from New West last year. We are thrilled to be part of this awesome charter school. For families willing to put in the time and effort in their child's education, New West offers an individually tailored education that is second to none in Los Angeles. It would be fantastic if they offered the same education at the high school level. Our children's education would be complete!

Parent review, 2010

Governing Law: The measurable pupil outcomes identified for use by the charter school. "Pupil outcomes," for purposes of this part, means the extent to which all pupils of the school demonstrate that they have attained the skills, knowledge, and attitudes specified as goals in the school's educational program. Education Code Section 47605(b)(5)(B).

Naturally, it is expected that NWCHS's educational program has and will continue to evolve over time. Our educational plan includes scheduled, systematic evaluations of the educational program's success in meeting the needs of the student body. The faculty and administration meet semi-annually with the express purpose of reviewing the curriculum's effectiveness at meeting the goals of NWCHS. This self-assessment process relies on data obtained from multiple sources including educators' assessments of curricular content, formal self-evaluations of achievement from students, as well as information from standardized tests and other performance assessments of NWCHS students. The Charter School's Governing Board, composed of educators and parents, use the results of these reviews to identify any needed curricular and program modifications that will advance the best interests of the Charter School's students. Specific benchmarked school-wide outcomes to be achieved over a five-year period (2012-2017) include:

80 Percent or above of students scoring "proficient" on the California English - Language Arts Standards Test (grades 9-11)

o Assessed annually by CST scores

70 Percent or above of students scoring "proficient" on the California Mathematics Standards Test (grades 9- 11)

o Assessed annually by CST scores

75 Percent or above of students scoring "proficient" on the California Science Standards Test (grade 10 only)

o Assessed annually by CST scores

80 Percent or above of students scoring "proficient" on the California United States History Standards Test (grade 11 only)

o Assessed annually by CST scores

90 Percent or above of students meeting all A-G course requirements

100 Percent of students passing the CAHSEE by graduation (beginning grade 10)

90 Percent or above of students meeting learning outcomes for each core subject at each grade level

75 Percent or above of students scoring a 3 or higher on College Board Advanced Placements Exams (grades 11 & 12)

- Statewide and Similar Schools Academic Performance Index o Assessed annually by Academic Performance Report issued by State
- NWCHS will meet adequate yearly progress as defined by the No Child Left Behind Act. o Assessed annually by Academic Performance Report issued by State

90 percent or above of students applying to 4 year universities to pursue post - secondary education

# ELEMENT C: MEASURING STUDENT OUTCOMES

I have been at New West for 3 years, and this is the year I graduate. At New West I feel safe and accepted for who I am. The teachers are awesome, and they are always there to help us. I am going to miss everything about this school. It's like leaving your family because we've all become so close. New West is amazing!

Student Review, 2010

Governing Law: The method by which pupil progress in meeting those pupil outcomes is to be measured. Education Code Section 47605(b)(5)(C).

To ensure that all statewide performance standards are met and to ensure continual evidence of pupil learning, NWCHS shall conduct testing pursuant to Education Code Section 47605(c) as well as its own assessment and evaluation process as they apply to the individual and our own school performance. Grading will be by criteria currently in place with emphasis for developing a common grading policy in each department. Students will be assessed in each of the core academic skill areas by a combination of assessment tools that may include, but are not limited to:

## **OUTCOMES:**

1. Standards-based Skills (California State Content Standards) Assessments:

- California High School Exit Exam (CAHSEE)
- California Standards Test (CSTs)
- Teacher Evaluation and Assessment
- 2. Additional Performance Indicators
  - A-G completion requirements (UC/CSU)
  - California English Language Development Test (CELDT)
  - College Board Advanced Placement Exams
  - Placement Exams (Subject A, Entry Level Mathematics (ELM) and English Placement Test (EPT) or similar community College data)
  - Preliminary Scholastic Achievement Test (PSAT)
  - SAT I, SAT IIs
  - Woodcock-Johnson

#### California High School Exit Exam (CAHSEE)

All NWCHS students must pass the CAHSEE to earn a high school diploma. California created the test to improve student achievement in high schools. The test helps to ensure that students graduate from high school with grade level skills in reading, writing, and math.

The first opportunity students have to take the CAHSEE is in the second half of grade ten. Students who do not pass one or both parts of the CAHSEE in grade ten have up to

two opportunities in grade eleven to retake the part or parts of the examination not yet passed; grade twelve students may have at least three and up to five opportunities to retake the part or parts of the exam not yet passed. Adult students may take the CAHSEE up to three times per school year. Only the part or parts the student did not pass may be taken again.

Students who are English language learners (ELs) are required to take the CAHSEE in grade ten with all other grade ten students. During their first 24 months in a California school, ELs are to complete 6 months of instruction in reading, writing, and comprehension in the English language (*EC* Section 60852). During this time, they are still required to take the CAHSEE. Test variations are available to ELs who regularly use these variations in the classroom. Examples include being tested in a separate room with other ELs; extra time within the testing day; English-to-primary language or primary language-to-English translation glossaries; or allowing students to hear a translated version of the test directions and to ask clarifying questions in their primary language.

#### **California State Testing**

NWCHS will administer all tests required by state law that are applicable to charter schools. NWCHS will administer, in the same manner as other public high schools, the statewide student assessments that are part of the Standardized Testing and Reporting Program (STAR) pursuant to Education Code Section 60605 [EC 47605(c)(1)]. As a condition of apportionment of state funding [Education 47612.5(a)(3)], New West provides annual certification that its students have participated in all required state testing programs. Currently, the statewide-standardized tests are the California Standards Test (CST).

NWCHS will use the results of the CST as one of the multiple measures for assessing individual student achievement. NWCHS requires that students meet the minimum levels for satisfactory performance established by the State Board of Education for promotion to the next grade level.

CST results are also one factor in determining whether students are eligible for NWCHS's remedial or accelerated instructional programs. The results of standardized tests are not used as the basis for assigning grades in any content area on a student's report card.

NWCHS will continue over time to examine and refine its methods for assessing student outcomes to reflect the Charter School's mission and any changes in statewide student assessments authorized in statute that may become applicable to charter schools.

#### **Curriculum Imbedded Assessments**

#### Generic and Subject-Specific Rubrics

Teachers develop and utilize rubrics or scoring criteria to assess student proficiency on performance tasks as a key component of a performance standards system. The rubrics provide the scoring guidelines that offer a scale and a set of descriptor for each level of student performance. An example is the use of rubrics to assess student proficiency in

writing assignments, such as developing a persuasive essay. Rubrics are provided to students before projects so they can serve as guidelines to learning, thus encouraging growth rather than simply being used as an evaluation tool. Students are included in the design and development of the various rubrics.

#### Curriculum Imbedded Assessment

This form of assessment is the most powerful of all measurement tools utilized at NWCHS because it is imbedded in the instructional process. These tools are intended to be formative, frequent, and on-going. Many of the assessments are diagnostic and will be given before and during the teaching process. Because these assessments are related to the curriculum, they will be unique to the classroom and the teacher. Teachers may select to include results from standardized tests, classroom tests, tasks, and projects, grades and teacher evaluation to provide a complete picture of student progress. These standards-based monitoring assessments will be administered, at a minimum, at the end of each unit, on the average every four to six weeks, or at the end of each chapter within the unit, to inform instruction and identify specific areas for intervention for specific students.

#### Multiple Measures

Students are provided with multiple opportunities to perform in relation to standards. They utilize an open-ended response vs. a closed-ended response. The open-ended task would have no single correct response. This assessment would measure how students use what they know, how they demonstrate a skill, how they communicate what they understand, or how they apply what they know in a new context. The closed-end approach to assessment would have one right or best answer. This approach assesses specific knowledge or information that students have acquired.

This example of utilizing various measures is intended to show the range of assessments that will

be used to individualize the learning experiences of NWCHS students. Assessment approaches vary according to format and context to meet student needs.

#### **Student Involvement in Assessment**

#### Student-Led Conferences with Parents

This assessment strategy of engaging students in the parent/teacher conference puts the student in a position of control over his or her academic growth. It is at this conference that the student, parents and teacher evaluate, assess, plan and then develop the individual learning plan for the next school year by closely examining the student's NWGP. The student has the opportunity to provide additional insights into his or her progress in what was learned as well as areas of strengths and areas of needed growth.

The NWGP will be in the form of a digital portfolio and will keep all updates as to how the student is completing all graduation and beyond requirements. It is intended that students be actively engaged in the selection of items that will be included in the portfolio. They are also responsible for evaluating the portfolio's contents. Teachers, parents, and peers might also have input into what is placed in a portfolio as a way of assessing a student's efforts, progress, or achievements. A few examples of items that may be included in a portfolio are student developed learning plans, journal entries, book reviews, computer-generated products, or parent comments on work.

### California English Language Development Test

The CELDT is a test that measures how well a student can listen, speak, read, and write in English. California state law requires that the CELDT be given each year to English Learners (students who do not speak English fluently). The purpose of this test is to monitor student progress in learning English and to help decide when a student is fully proficient in academic English. Any student who lives in a home where a language other than English is spoken must take the test within 30 calendar days after enrolling in a California public school for the first time.

Test results for newly enrolled students are used to help identify English Learners who need to develop their speaking, listening, reading, and writing skills in English.

## **NWCHS Promotion Policy**

Mastery of the standards for each course will be the basis for promotion, just as it is at the middle school level. Teachers assess a student's progress on a quarterly basis in order to gauge whether the student is mastering the objectives and standards throughout the year. Students who are in jeopardy of retention are counseled individually and given extra help in their specific areas of concern.

Students who do not meet the performance standards for advancement to the next grade or course are retained in their current grade in accordance with their applicable promotional academic credits. These students are identified earlier in the academic year and are supported by a Student Success Team. Parents of students who have been retained are contacted by a counselor who requests a meeting to discuss the student's substandard progress and determine some strategies that may promote greater success for the student. Strategies may include greater monitoring of student effort and could lead to a referral for individual assessment, possibly bringing about designated accommodations.

#### **School Accountability Report Card**

NWCHS will prepare each year a School Accountability Report Card (SARC) as required by state and federal law. The purpose of the SARC is to inform the parents of enrolled students, parents of prospective students, teachers, staff, and the community at large about conditions and progress at the Charter High School. NWCHS will use the model SARC template developed by the California Department of Education. The SARC template contains the following kinds of information:

- Descriptive information about the Charter School and its curriculum.
- Mission statement.
- Opportunities for parental involvement.
- Demographics of the student body.
- School safety and climate for learning, including suspensions and expulsions.

• California Standards Test (CST) results, including comparisons by subgroups to district and state results.

• Academic Performance Index (API) results and growth targets, including comparisons by subgroups to similar schools, district, state results.

• Summary of participation in federal intervention programs

• Adequate Yearly Progress (AYP) results, including comparisons by subgroups to district and state results.

- Class size statistics.
- Teacher and staff information, including credentials, education level, teacher evaluations, substitute teachers, counselors, and other support staff.
- Curriculum and instruction, including leadership, school instruction,

professional development, textbooks, instructional minutes, and numbers of minimum days.

• Fiscal and expenditure data, including average salaries, total expenditures per student, and types of services funded.

The Executive Director/Principal serves as or appoints a SARC coordinator to manage the preparation and dissemination of the SARC. NWCHS will make the SARC available on its website as well as distributing it to parents of current and prospective students.

"There are so many positive things to be said about New West Charter Midtage 33 of 94 School. If you are looking for your child to thrive academically New West is the place. The music program is outstanding. The teachers are well qualified to handle any student. New West goes on many educational and physically challenging field and road trips. My daughter has attended New West since 6th grade. She will be graduating this year. Reality has started to set in for her since she will not have that same rigor and guidance anywhere."

Parent Review, 2010

Scope and Sequence (by department)

#### **Mathematics**

#### Algebra

The Algebra course is composed of four major units of study: Solving equations and inequalities, linear functions, quadratic functions, and rational expressions. In each of the major units of study, concepts will be explored using multiple representations so that students develop essential procedural and conceptual understandings in Algebra. The basic foundations of the algebra curriculum are developed in the first unit of study. The central theme of this unit involves solving multistep equations and inequalities. Students will become adept at identifying and defining the algebraic properties and principles used to simplify and solve multistep equations and inequalities. These skills will then be applied to writing and solving multistep equations and inequalities for word problems. Each of the concepts in the first unit will be continuously revisited and reinforced throughout the remainder of the course.

During the second unit, students use algebra to generalize, interpret, and analyze key patterns observed when working with linear functions. Particular attention is paid to patterns that relate to the concept of slope and how this concept manifests in graphs, tables, and equations. Students will also explore multiple methods of graphing linear functions including: creating a table; finding the x- and y- intercepts; using the slope-intercept form; and point slope form. With a strong linear functions foundation, students will transition into applying procedural graphing knowledge and skills to more conceptual tasks as they solve systems of equations and inequalities both graphically and algebraically. During the quadratic functions unit, students begin to master the basic factoring techniques used extensively in the remainder to the Algebra curriculum. The concept of factoring will then be applied to graphing, analyzing, and interpreting the relationship between quadratic equations and their graphs. Students will also need to master multiple factoring techniques including completing the square and using the quadratic formula. Students will then begin to apply their procedural knowledge to more conceptual tasks as they solve physical problems including motion, force, gravity, and acceleration.

The final unit of study emphasizes computational mastery in a more complex algebraic manner. Students apply basic techniques of adding, subtracting, multiplying, and dividing as they simplify rational expressions. Students also expand their skills and knowledge of operations with fractions as they apply these skills to solving rational equations.

#### CA State Standards

Symbolic reasoning and calculations with symbols are central in algebra. Through the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations.

1.0 Students identify and use the arithmetic properties of subsets of integers and rational,

irrational, and real numbers, including closure properties for the four basic arithmetic operations where applicable:

1.1 Students use properties of numbers to demonstrate whether assertions are true or false.

**2.0** Students understand and use such operations as taking the opposite, finding the reciprocal, taking a root, and raising to a fractional power. They understand and use the rules of exponents.

**3.0** Students solve equations and inequalities involving absolute values.

**4.0** Students simplify expressions before solving linear equations and inequalities in one variable, such as 3(2x-5) + 4(x-2) = 12.

**5.0** Students solve multistep problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.

**6.0** Students graph a linear equation and compute the *x*- and *y*-intercepts (e.g., graph 2x + 6y = 4). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by 2x + 6y < 4).

**7.0** Students verify that a point lies on a line, given an equation of the line. Students are able to derive linear equations by using the point-slope formula.

**8.0** Students understand the concepts of parallel lines and perpendicular lines and how those slopes are related. Students are able to find the equation of a line perpendicular to a given line that passes through a given point.

**9.0** Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically. Students are able to solve a system of two linear inequalities in two variables and to sketch the solution sets.

**10.0** Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

**11.0** Students apply basic factoring techniques to second- and simple third-degree polynomials. These techniques include finding a common factor for all terms in a polynomial, recognizing the difference of two squares, and recognizing perfect squares of binomials.

**12.0** Students simplify fractions with polynomials in the numerator and denominator by factoring both and reducing them to the lowest terms.

**13.0** Students add, subtract, multiply, and divide rational expressions and functions. Students solve both computationally and conceptually challenging problems by using these techniques.

**14.0** Students solve a quadratic equation by factoring or completing the square.

**15.0** Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

**16.0** Students understand the concepts of a relation and a function, determine whether a given relation defines a function, and give pertinent information about given relations and functions.

**17.0** Students determine the domain of independent variables and the range of dependent variables defined by a graph, a set of ordered pairs, or a symbolic expression.

**18.0** Students determine whether a relation defined by a graph, a set of ordered pairs, or a symbolic expression is a function and justify the conclusion.

**19.0** Students know the quadratic formula and are familiar with its proof by completing the square.

**20.0** Students use the quadratic formula to find the roots of a second-degree polynomial and to solve quadratic equations.

**21.0** Students graph quadratic functions and know that their roots are the *x*-intercepts.

**22.0** Students use the quadratic formula or factoring techniques or both to determine whether the graph of a quadratic function will intersect the x-axis in zero, one, or two points.

**23.0** Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.

**24.0** Students use and know simple aspects of a logical argument:

24.1 Students explain the difference between inductive and deductive reasoning and identify and provide examples of each.

24.2 Students identify the hypothesis and conclusion in logical deduction.

24.3 Students use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute an assertion.

**25.0** Students use properties of the number system to judge the validity of results, to justify each step of a procedure, and to prove or disprove statements:

25.1 Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.

25.2 Students judge the validity of an argument according to whether the properties of the real number system and the order of operations have been applied correctly at each step.

25.3 Given a specific algebraic statement involving linear, quadratic, or absolute value expressions or equations or inequalities, students determine whether the statement is true sometimes, always, or never.

#### Geometry Course Description

The course will allow students to strengthen their inductive and deductive reasoning as they examine and develop arguments, contradictions, and proofs. A significant amount of definitions, postulates, and theorems will need to be mastered by students as they perform basic proofs and then apply these proofs to real world problem solving situations. The course includes several major units of study beginning with the basic components of geometry and then proceeding to concepts involving two and three-dimensional geometric figures. The basic components unit includes a review of key notations and visual representations that will be used through out the course. Central to this unit are the angles relationships and properties that emanate from parallel lines cut by transversals.

Building on the basic components of geometry, the next unit relates to an extensive examination of triangles. Students will work extensively with two column proofs of triangle congruence and similarity. The triangle unit continues with a closer examination of right triangles. Students will know and apply the Pythagorean theorem, Distance Formula, special right triangle relationships, and trigonometric functions to find unknown lengths and angles in right triangles. The focus of the course then transitions to a more general investigation of the properties of two-dimensional figures including the relationships between angles and sides, area, and perimeter. Students then investigate the relationships and properties of three-dimensional figures involving computations and problem solving related to volume and surface area. Finally the course concludes with the circle unit. Students will develop theorems related to chords, secants, tangents, inscribed angles and polygons. These theorems will then be applied to problem solving situations that involve missing angle and arc measures, as well as finding the length of arcs, chords, tangents, and secants.

#### CA State Standards

The geometry skills and concepts developed in this discipline are useful to all students. Aside from learning these skills and concepts, students will develop their ability to construct formal, logical arguments and proofs in geometric settings and problems.

**1.0** Students demonstrate understanding by identifying and giving examples of undefined terms, axioms, theorems, and inductive and deductive reasoning.

2.0 Students write geometric proofs, including proofs by contradiction.

**3.0** Students construct and judge the validity of a logical argument and give counterexamples to disprove a statement.

**4.0** Students prove basic theorems involving congruence and similarity.

**5.0** Students prove that triangles are congruent or similar, and they are able to use the concept of corresponding parts of congruent triangles.
6.0 Students know and are able to use the triangle inequality theorem.

**7.0** Students prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles.

**8.0** Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

**9.0** Students compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres; and students commit to memory the formulas for prisms, pyramids, and cylinders.

**10.0** Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.

**11.0** Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.

**12.0** Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.

**13.0** Students prove relationships between angles in polygons by using properties of complementary, supplementary, vertical, and exterior angles.

14.0 Students prove the Pythagorean theorem.

**15.0** Students use the Pythagorean theorem to determine distance and find missing lengths of sides of right triangles.

**16.0** Students perform basic constructions with a straightedge and compass, such as angle bisectors, perpendicular bisectors, and the line parallel to a given line through a point off the line.

**17.0** Students prove theorems by using coordinate geometry, including the midpoint of a line segment, the distance formula, and various forms of equations of lines and circles.

**18.0** Students know the definitions of the basic trigonometric functions defined by the angles of a right triangle. They also know and are able to use elementary relationships between them.

For example,  $\tan(x) = \sin(x)/\cos(x)$ ,  $(\sin(x))^{2} + (\cos(x))^{2} = 1$ .

**19.0** Students use trigonometric functions to solve for an unknown length of a side of a right triangle, given an angle and a length of a side.

**20.0** Students know and are able to use angle and side relationships in problems with special right triangles, such as 30°, 60°, and 90° \_triangles and 45°, 45°, and 90° \_triangles.

**21.0** Students prove and solve problems regarding relationships among chords, secants, tangents, inscribed angles, and inscribed and circumscribed polygons of circles.

**22.0** Students know the effect of rigid motions on figures in the coordinate plane and space, including rotations, translations, and reflections.

## Algebra II Course Description

Algebra II provides a review and extension of the concepts taught in Algebra I and Geometry. Throughout this course, students will develop learning strategies, critical thinking skills, and problem solving techniques to prepare for future math courses in high school and college. The course begins with an extensive review of Algebra I concepts including equation and inequalities, linear equations and functions, systems of equations, radical expressions, quadratic equations and functions, polynomials, and rational expressions. A few new concepts such as complex and imaginary numbers and solving systems of equations in two and three variables, are introduced in order to build on students basic Algebra knowledge and skills.

The Algebra II course then explores the algebraic and geometric concept of conic sections. This includes the equations and graphing for several functions that define the conic section units including the circle, ellipse, parabola, and hyperbola functions. Students will develop an understanding of inverse functions and relations including an introduction to exponential and logarithmic functions, and in particular, natural logarithms. These functions will also be used in problem solving situations. The emphasis then shifts towards a study of matrices and determinants. Students will be required to master the addition, subtraction, and multiplication of matrices. In addition to using determinants and Cramer's Rule, students will use inverse matrices to solve systems of two or three equations.

Students will then transition to the study of sequences, series, and mathematical induction unit. Students learn to find a particular term in an arithmetic or geometric sequence. They will also compute sums of finite arithmetic and geometric series as well as of infinite geometric series.

## CA State Standards

This discipline complements and expands the mathematical content and concepts of algebra I and geometry. Students who master algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system.

**1.0** Students solve equations and inequalities involving absolute value.

**2.0** Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.

3.0 Students are adept at operations on polynomials, including long division.

4.0 Students factor polynomials representing the difference of squares, perfect square trinomials,

and the sum and difference of two cubes.

**5.0** Students demonstrate knowledge of how real and complex numbers are related both arithmetically and graphically. In particular, they can plot complex numbers as points in the plane.

6.0 Students add, subtract, multiply, and divide complex numbers.

**7.0** Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.

**8.0** Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.

**9.0** Students demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions; that is, students can determine how the graph of a parabola changes as *a*, *b*, and *c* vary in the equation  $y = a(x-b)^2 + c$ .

**10.0** Students graph quadratic functions and determine the maxima, minima, and zeros of the function.

**11.0** Students prove simple laws of logarithms.

11.1 Students understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.

11.2 Students judge the validity of an argument according to whether the properties of real numbers, exponents, and logarithms have been applied correctly at each step.

**12.0** Students know the laws of fractional exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay.

**13.0** Students use the definition of logarithms to translate between logarithms in any base.

**14.0** Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values.

**15.0** Students determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true, or never true.

**16.0** Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it.

**17.0** Given a quadratic equation of the form  $ax^2 + by^2 + cx + dy + e = 0$ , students can use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.

**18.0** Students use fundamental counting principles to compute combinations and permutations.

19.0 Students use combinations and permutations to compute probabilities.

**20.0** Students know the binomial theorem and use it to expand binomial expressions that are raised to positive integer powers.

**21.0** Students apply the method of mathematical induction to prove general statements about the positive integers.

**22.0** Students find the general term and the sums of arithmetic series and of both finite and infinite geometric series.

**23.0** Students derive the summation formulas for arithmetic series and for both finite and infinite geometric series.

**24.0** Students solve problems involving functional concepts, such as composition, defining the inverse function and performing arithmetic operations on functions.

**25.0** Students use properties from number systems to justify steps in combining and simplifying functions.

# **Pre-Calculus Course Description**

Topics in Mathematical Analysis, Trigonometry, and Linear Algebra are often combined to create a pre-calculus course needed to prepare students for the study of Calculus. The course is designed to strengthen student conceptual understanding and mathematical reasoning of techniques used in trigonometry, geometry, and algebra. Mathematical Analysis standards require students to know and apply to problem solving situations: polar coordinates and vectors; complex numbers; the fundamental theorem of algebra; conic sections; roots and poles of rational functions; functions and equations defined parametrically; and the limit of a sequences and functions. Trigonometry standards build on those concepts previously learner in the Geometry course. Students develop an understanding of angle measurements in degrees and radians and use this concept to graph in a variety of forms the sine, cosine, tangent, cotangent, secant, and cosecant functions. Several more trigonometry identities are introduced. Students will prove these identities and use them to simplify other similar identities. The trigonometric functions will be revisited and used in problem solving situations and word problems in order to find the missing angle, side, or area of right triangles. Students must be familiar with polar coordinates and complex numbers and be able to multiply complex numbers in their polar form. Finally, students will apply these skills as they work with complex numbers in polar form using the DeMoivre's theorem. In the Linear Algebra portion of the course the standards indicate an extensive examination and application of the algebraic and geometric interpretations of matrices and vectors. The goal of Linear Algebra is for students to learn the techniques of matrix manipulation so that they can solve systems of linear equations in any number of variables. Students must understand and know how to apply the Gauss-Jordan method and the Cramer's rule of solving matrices.

## CA State Standards

Trigonometry uses the techniques that students have previously learned from the study of algebra and geometry. The trigonometric functions studied are defined geometrically rather than in terms of algebraic equations. Facility with these functions as well as the ability to prove basic identities regarding them is especially important for students intending to study calculus, more advanced mathematics, physics and other sciences, and engineering in college.

**1.0** Students understand the notion of angle and how to measure it, in both degrees and radians. They can convert between degrees and radians.

**2.0** Students know the definition of sine and cosine as *y*-and *x*-coordinates of points on the unit circle and are familiar with the graphs of the sine and cosine functions.

**3.0** Students know the identity  $\cos^2(x) + \sin^2(x) = 1$ :

3.1 Students prove that this identity is equivalent to the Pythagorean theorem (i.e., students can prove this identity by using the Pythagorean theorem and, conversely, they can prove the Pythagorean theorem as a consequence of this identity).

3.2 Students prove other trigonometric identities and simplify others by using the identity  $\cos^2(x) + \sin^2(x) = 1$ . For example, students use this identity to prove that  $\sec^2(x) = \tan^2(x) = \tan^2$ 

$$(x) + 1.$$

**4.0** Students graph functions of the form  $f(t) = A \sin (Bt + C)$  or  $f(t) = A \cos (Bt + C)$  and interpret *A*, *B*, and *C* in terms of amplitude, frequency, period, and phase shift.

5.0 Students know the definitions of the tangent and cotangent functions and can graph them.

6.0 Students know the definitions of the secant and cosecant functions and can graph them.

**7.0** Students know that the tangent of the angle that a line makes with the *x*-axis is equal to the slope of the line.

8.0 Students know the definitions of the inverse trigonometric functions and can graph the

functions.

## **Mathematical Analysis**

This discipline combines many of the trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus and strengthens their conceptual understanding of problems and mathematical reasoning in solving problems. These standards take a functional point of view toward those topics. The most significant new concept is that of limits. Mathematical analysis is often combined with a course in trigonometry or perhaps with one in linear algebra to make a yearlong pre-calculus course.

**1.0** Students are familiar with, and can apply, polar coordinates and vectors in the plane. In particular, they can translate between polar and rectangular coordinates and can interpret polar coordinates and vectors graphically.

**2.0** Students are adept at the arithmetic of complex numbers. They can use the trigonometric form of complex numbers and understand that a function of a complex variable can be viewed as a function of two real variables. They know the proof of DeMoivre's theorem.

**3.0** Students can give proofs of various formulas by using the technique of mathematical induction.

**4.0** Students know the statement of, and can apply, the fundamental theorem of algebra.

**5.0** Students are familiar with conic sections, both analytically and geometrically:

5.1 Students can take a quadratic equation in two variables; put it in standard form by completing the square and using rotations and translations, if necessary; determine what type of conic section the equation represents; and determine its geometric components (foci, asymptotes, and so forth).

5.2 Students can take a geometric description of a conic section—for example, the locus of points whose sum of its distances from (1, 0) and (-1, 0) is 6—and derive a quadratic equation representing it.

**6.0** Students find the roots and poles of a rational function and can graph the function and locate its asymptotes.

**7.0** Students demonstrate an understanding of functions and equations defined parametrically and can graph them.

**8.0** Students are familiar with the notion of the limit of a sequence and the limit of a function as the independent variable approaches a number or infinity. They determine whether certain sequences converge or diverge.

# Linear Algebra

The general goal in this discipline is for students to learn the techniques of matrix manipulation so that they can solve systems of linear equations in any number of variables. Linear algebra is most often combined with another subject, such as trigonometry,

## mathematical analysis, or pre-calculus.

**1.0** Students solve linear equations in any number of variables by using Gauss-Jordan elimination.

**2.0** Students interpret linear systems as coefficient matrices and the Gauss-Jordan method as row operations on the coefficient matrix.

**3.0** Students reduce rectangular matrices to row echelon form.

**4.0** Students perform addition on matrices and vectors.

**5.0** Students perform matrix multiplication and multiply vectors by matrices and by scalars.

**6.0** Students demonstrate an understanding that linear systems are inconsistent (have no solutions), have exactly one solution, or have infinitely many solutions.

**7.0** Students demonstrate an understanding of the geometric interpretation of vectors and vector addition (by means of parallelograms) in the plane and in three-dimensional space.

**8.0** Students interpret geometrically the solution sets of systems of equations. For example, the solution set of a single linear equation in two variables is interpreted as a line in the plane, and the solution set of a two-by-two system is interpreted as the intersection of a pair of lines in the plane.

**9.0** Students demonstrate an understanding of the notion of the inverse to a square matrix and apply that concept to solve systems of linear equations.

**10.0** Students compute the determinants of  $2 \times 2$  and  $3 \times 3$  matrices and are familiar with their geometric interpretations as the area and volume of the parallelepipeds spanned by the images under the matrices of the standard basis vectors in two-dimensional and three-dimensional spaces.

**11.0** Students know that a square matrix is invertible if, and only if, its determinant is nonzero. They can compute the inverse to  $2 \times 2$  and  $3 \times 3$  matrices using row reduction methods or Cramer's rule.

**12.0** Students compute the scalar (dot) product of two vectors in *n*-dimensional space and know that perpendicular vectors have zero dot product.

## **Calculus Course Description**

The prerequisites to learning and using calculus are the algebra, trigonometry, and analytical geometry skills students have developed in the preceding Algebra II and Pre calculus classes. In addition to the rigor and depth that will permeate all aspects of this course students will hopefully also develop an appreciation for the versatility and usefulness that the study of Calculus provides to professional fields related to mathematics, science, design, technology, and engineering. The course begins with an examination of limits and continuity. Students will be required to calculate limits of function values and to test functions for continuity. Once students are able to calculate limits, they can then proceed to finding derivatives. The derivatives unit illustrates the role calculus plays in measuring the rates at which things change. Students will explore the circumstances in which derivates exist, the basic derivative techniques, rates of change, trigonometric derivatives, major rules and laws, common differentiation tasks, and an extensive application of derivatives in real world situations.

The focus of the course then shifts from derivates to finite sums and integrals. Students will examine the close connections between derivatives and integrals though the examination of the contributions of Leibniz and Newton to the study of Calculus. During the integral unit students will be required to work extensively with integration and derivatives as these concepts relate to the graphs of exponential, inverse, logarithmic, inverse trigonometric, and hyperbolic functions. Students will know and apply several major integration rules and theorems including the Fundamental Theorem of Calculus, L'Hopital's rule, Mean Value theorem, and Rolle's theorem. In addition, students will apply all the above techniques and theorems of integration to finding the volumes of rotational solids and arc lengths. Calculus students then transition to the study of differential equations, sequences, and series. The section pertaining to differential equations requires students to have knowledge of the separation of variables, the types of solutions, and exponential growth and decay. Students must also be able to visualize differential equations in terms of linear approximations, slope fields, and Euler's method. The sequence and series section allows student the opportunity to examine basic examples of infinite series such as geometric series, P-series, and the telescoping series. Students will also be able to perform a variety of infinite series convergence test. Finally an exploration of special series such as the power series, the Maclaurin series, and the Taylor series will conclude the unit.

# CA State Standards

When taught in high school, calculus should be presented with the same level of depth and rigor as are entry-level college and university calculus courses. These standards outline a complete college curriculum in one variable calculus. Many high school programs may have insufficient time to cover all of the following content in a typical academic year. Consideration of the College Board syllabi for the Calculus AB and Calculus BC sections of the Advanced Placement Examination in Mathematics may be helpful in making curricular decisions. Calculus is a widely applied area of mathematics and involves a beautiful intrinsic theory. Students mastering this content will be exposed to both aspects of the subject.

**1.0** Students demonstrate knowledge of both the formal definition and the graphical interpretation of limit of values of functions. This knowledge includes one-sided limits, infinite limits, and limits at infinity. Students know the definition of convergence and divergence of a function as the domain variable approaches either a number or infinity:

1.1 Students prove and use theorems evaluating the limits of sums, products, quotients, and composition of functions.

1.2 Students use graphical calculators to verify and estimate limits.

1.3 Students prove and use special limits, such as the limits of  $(\sin(x))/x$  and  $(1-\cos(x))/x$  as x tends to 0.

**2.0** Students demonstrate knowledge of both the formal definition and the graphical interpretation of continuity of a function.

**3.0** Students demonstrate an understanding and the application of the intermediate value theorem and the extreme value theorem.

**4.0** Students demonstrate an understanding of the formal definition of the derivative of a function at a point and the notion of differentiability:

4.1 Students demonstrate an understanding of the derivative of a function as the slope of the tangent line to the graph of the function.

4.2 Students demonstrate an understanding of the interpretation of the derivative as an instantaneous rate of change. Students can use derivatives to solve a variety of problems from physics, chemistry, economics, and so forth that involve the rate of change of a function.

4.3 Students understand the relation between differentiability and continuity.

4.4 Students derive derivative formulas and use them to find the derivatives of algebraic, trigonometric, inverse trigonometric, exponential, and logarithmic functions.

**5.0** Students know the chain rule and its proof and applications to the calculation of the derivative of a variety of composite functions.

**6.0** Students find the derivatives of parametrically defined functions and use implicit differentiation in a wide variety of problems in physics, chemistry, economics, and so forth.

7.0 Students compute derivatives of higher orders.

8.0 Students know and can apply Rolle's theorem, the mean value theorem, and L'Hôpital's rule.

**9.0** Students use differentiation to sketch, by hand, graphs of functions. They can identify maxima, minima, inflection points, and intervals in which the function is increasing and decreasing.

**10.0** Students know Newton's method for approximating the zeros of a function.

11.0 Students use differentiation to solve optimization (maximum-minimum problems) in a

variety of pure and applied contexts.

**12.0** Students use differentiation to solve related rate problems in a variety of pure and applied contexts.

**13.0** Students know the definition of the definite integral by using Riemann sums. They use this definition to approximate integrals.

**14.0** Students apply the definition of the integral to model problems in physics, economics, and so forth, obtaining results in terms of integrals.

**15.0** Students demonstrate knowledge and proof of the fundamental theorem of calculus and use it to interpret integrals as anti-derivatives.

**16.0** Students use definite integrals in problems involving area, velocity, acceleration, volume of a solid, area of a surface of revolution, length of a curve, and work.

**17.0** Students compute, by hand, the integrals of a wide variety of functions by using techniques of integration, such as substitution, integration by parts, and trigonometric substitution. They can also combine these techniques when appropriate.

**18.0** Students know the definitions and properties of inverse trigonometric functions and the expression of these functions as indefinite integrals.

**19.0** Students compute, by hand, the integrals of rational functions by combining the techniques in standard 17.0 with the algebraic techniques of partial fractions and completing the square.

**20.0** Students compute the integrals of trigonometric functions by using the techniques noted above.

**21.0** Students understand the algorithms involved in Simpson's rule and Newton's method. They use calculators or computers or both to approximate integrals numerically.

**22.0** Students understand improper integrals as limits of definite integrals.

**23.0** Students demonstrate an understanding of the definitions of convergence and divergence of sequences and series of real numbers. By using such tests as the comparison test, ratio test, and alternate series test, they can determine whether a series converges.

**24.0** Students understand and can compute the radius (interval) of the convergence of power series.

**25.0** Students differentiate and integrate the terms of a power series in order to form new series from known ones.

**26.0** Students calculate Taylor polynomials and Taylor series of basic functions, including the remainder term.

**27.0** Students know the techniques of solution of selected elementary differential equations and their applications to a wide variety of situations, including growth-and-decay problems.

# **Probability and Statistics**

This course covers the study of probability, interpretation of data, and fundamental statistical problem solving. Students must know the definitions of the notions of independent events, conditional probability, mean, median, mode, variance of a discrete random variable, and the mean of a discrete random variable. Each of these definitions will then be used to solve for probabilities and events under a diversity of statistical circumstances. Throughout the course the distributions of data will be described using different methods including frequency tables, histograms, standard line and bar graphs, stem and leaf displays, scatter plots, and box and whisker plots. For the each distribution of data students must be able to identify the standard distribution and compute the variance and standard deviation. In an advanced placement probability and statistics class students must be able to determine P-value for a statistic and be familiar with and understand the uses of a *chi*-square distribution and the *chi*-square test.

# CA State Standards

This discipline is an introduction to the study of probability, interpretation of data, and fundamental statistical problem solving. Mastery of this academic content will provide students with a solid foundation in probability and facility in processing statistical information.

**1.0** Students know the definition of the notion of *independent events* and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces.

**2.0** Students know the definition of *conditional probability* and use it to solve for probabilities in finite sample spaces.

**3.0** Students demonstrate an understanding of the notion of *discrete random variables* by using them to solve for the probabilities of outcomes, such as the probability of the occurrence of five heads in 14 coin tosses.

**4.0** Students are familiar with the standard distributions (normal, binomial, and exponential) and can use them to solve for events in problems in which the distribution belongs to those families.

**5.0** Students determine the mean and the standard deviation of a normally distributed random variable.

**6.0** Students know the definitions of the *mean, median,* and *mode* of a distribution of data and can compute each in particular situations.

7.0 Students compute the variance and the standard deviation of a distribution of data.

**8.0** Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatter plots, and box-and-whisker plots.

### **Sciences**

## **Biology/Life Sciences**

Biology is the study of processes central to the continuation and reproduction of life for all organisms. Concepts covered in this course will include the anatomy and reproduction of plant and animal cells, chemical reactions that are critical to specific organic cycles, and the concepts of genetics that explain reproduction, mutation, and evolution. Students will also learn the role of a variety of living and non-living components in maintaining balance within ecosystems, the factors and evidence of evolution, and the coordinated function and structures of organ systems in maintaining homeostasis within human bodies and other organisms.

Students will learn the concepts of biology through hands-on experimentation, simulation, and active demonstration, as well as discussion, group and individual research, and projects that apply concepts covered in class to the observable world.

## CA State Standards

## Cell Biology

1. The fundamental life processes of plants and animals depend on a variety of chemical reactions that occur in specialized areas of the organism's cells. As a basis for understanding this concept:

- a. *Students know* cells are enclosed within semi-permeable membranes that regulate their interaction with their surroundings.
- b. *Students know* enzymes are proteins that catalyze biochemical reactions without altering the reaction equilibrium and the activities of enzymes depend on the temperature, ionic conditions, and the pH of the surroundings.
- c. *Students know* how prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure.
- d. *Students know* the central dogma of molecular biology outlines the flow of information from transcription of ribonucleic acid (RNA) in the nucleus to translation of proteins on ribosomes in the cytoplasm.
- e. *Students know* the role of the endoplasmic reticulum and Golgi apparatus in the secretion of proteins. f. *Students know* usable energy is captured from sunlight by chloroplasts and is stored through the synthesis of sugar from carbon dioxide.
- g. *Students know* the role of the mitochondria in making stored chemical-bond energy available to cells by completing the breakdown of glucose to carbon dioxide.
- h. *Students know* most macromolecules (polysaccharides, nucleic acids, proteins, lipids) in cells and organisms are synthesized from a small collection of simple precursors.
- i.\* *Students know* how chemiosmotic gradients in the mitochondria and chloroplast store energy for ATP production. j\* *Students know* how eukaryotic cells are given shape and internal organization by a

cytoskeleton or cell wall or both.

### Genetics

2. Mutation and sexual reproduction lead to genetic variation in a population. As a basis

for understanding this concept:

a. *Students know* meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.

b. *Students know* only certain cells in a multicellular organism undergo meiosis.

c. *Students know* how random chromosome segregation explains the probability that a particular allele will be in a gamete.

d. *Students know* new combinations of alleles may be generated in a zygote through the fusion of male and female gametes (fertilization).

e. *Students know* why approximately half of an individual's DNA sequence comes from each parent.

f. Students know the role of chromosomes in determining an individual's sex.

g. *Students know* how to predict possible combinations of alleles in a zygote from the genetic makeup of the parents.

- 3. A multi-cellular organism develops from a single zygote, and its phenotype depends on its genotype, which is established at fertilization. As a basis for understanding this concept:
  - a. *Students know* how to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or X-linked, dominant or recessive).

b. Students know the genetic basis for Mendel's laws of

segregation and independent assortment.

c.\* *Students know* how to predict the probable mode of

inheritance from a pedigree diagram showing phenotypes.

d.\* *Students know* how to use data on frequency of recombination at meiosis to estimate genetic distances between loci and to interpret genetic maps of chromosomes

4. Genes are a set of instructions encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism. As a basis for understanding this concept:

a. Students know the general pathway by which ribosomes synthesize proteins,

using tRNAs to translate genetic information in mRNA.

b. *Students know* how to apply the genetic coding rules to predict the sequence of amino acids from a sequence of codons in RNA.

- c. *Students know* how mutations in the DNA sequence of a gene may or may not affect the expression of the gene or the sequence of amino acids in an encoded protein.
- d. *Students know* specialization of cells in multi-cellular organisms is usually due to different patterns of gene expression rather than to differences of the genes themselves.

e. *Students know* proteins can differ from one another in the number and sequence of amino acids. f.\* *Students know* why proteins having different amino acid sequences typically have different shapes and chemical properties.

5. The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept:

a. *Students know* the general structures and functions of DNA, RNA, and protein.

b. *Students know* how to apply base-pairing rules to explain precise copying of DNA during semi-conservative replication and transcription of information from DNA into mRNA.

c. *Students know* how genetic engineering (biotechnology) is used to produce novel biomedical and agricultural products.

d.\* *Students know* how basic DNA technology (restriction digestion by endonucleases, gel electrophoresis, ligation, and transformation) is used to construct recombinant DNA molecules.

e.\* *Students know* how exogenous DNA can be inserted into bacterial cells to alter their genetic makeup and support expression of new protein products.

## Ecology

6. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

a. Students know biodiversity is the sum total of different kinds

of organisms and is affected by alterations of habitats.

b. *Students know* how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size.

c. Students know how fluctuations in population size in an ecosystem are

determined by the relative rates of birth, immigration, emigration, and death.

d. Students know how water, carbon, and nitrogen cycle between abiotic resources and

organic matter in the ecosystem and how oxygen cycles through photosynthesis and respiration.

e. *Students know* a vital part of an ecosystem is the stability of its producers and decomposers.

f. *Students know* at each link in a food web some energy is stored in newly made structures but much energy is dissipated into the environment as heat. This dissipation may be represented in an energy pyramid.

g.\* *Students know* how to distinguish between the accommodation of an individual organism to its environment and the gradual adaptation of a lineage of organisms through genetic change.

## Evolution

7. The frequency of an allele in a gene pool of a population depends on many factors and may be stable or unstable over time. As a basis for understanding this concept:

a. *Students know* why natural selection acts on the phenotype rather than the genotype of an organism.

b. *Students know* why alleles that are lethal in a homozygous individual may be carried in a heterozygote and thus maintained in a gene pool.

c. Students know new mutations are constantly being generated in a gene pool.

d. *Students know* variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions

e.\* *Students know* the conditions for Hardy-Weinberg equilibrium in a population and why these conditions are not likely to appear in nature.

f.\* *Students know* how to solve the Hardy-Weinberg equation to predict the frequency of genotypes in a population, given the frequency of phenotypes.

8. Evolution is the result of genetic changes that occur in constantly changing environments. As a basis for understanding this concept:

- a. *Students know* how natural selection determines the differential survival of groups of organisms.
- b. *Students know* a great diversity of species increases the chance that at least some organisms survive major changes in the environment.
- c. Students know the effects of genetic drift on the diversity of

organisms in a population.

d. Students know reproductive or geographic isolation affects speciation.

e. *Students know* how to analyze fossil evidence with regard to biological diversity, episodic speciation, and mass extinction.

f.\* *Students know* how to use comparative embryology, DNA or protein sequence comparisons, and other independent sources of data to create a branching diagram (cladogram) that shows probable evolutionary relationships.

g.\* *Students know* how several independent molecular clocks, calibrated against each other and combined with evidence from the fossil record, can help to estimate how long ago various groups of organisms diverged evolutionarily from one another.

## Chemistry

For this science course, the design is to be a first-year high school chemistry course, which will give students a rigorous foundation in chemistry in order to prepare those students for a college-level course. The course covers significant figures, units, classification, the mole concept, stoichiometry, thermochemistry, thermodynamics, kinetics, acids and bases, redox reactions, solutions, atomic structure, Lewis structures, molecular geometry, the gas laws, and equilibrium. It will examine the composition of various substances and the changes they can go through. The periodic table and simple compounds are covered as well as the basics of Chemistry. Students will be completing laboratory work dealing with practical skills and techniques such as weighing, using units of metric system, and performing experiments that illustrate and reinforce the principles taught throughout the course. In addition, the students will be writing lab reports for every laboratory work completed in the year.

The design of the course will also show students how chemistry touches their lives almost everywhere and everyday, in medicine, the clothes they wear, the games they play, as well as the industries that make the things they use. For this course, the learning environment will be student centered, knowledge centered, assessment centered, and community centered. This course will be student centered to the extent that the teacher builds on knowledge students bring to the learning situations. This course will be knowledge centered to the extent that the teacher helps students develop an organized understanding of important concepts in the physics teaching discipline. This course will be assessment centered to the extent that the teacher makes students' thinking visible so that ideas can be presented and verified. This course will be community centered to the extent that the teacher establishes classroom norms that learning with understanding is valued and students feel free to explore what they do not understand.

In order to be able to understand the material, assignments and projects, students need to have successfully completed Algebra I.

#### CA State Standards

## Atomic and Molecular Structure

1. The periodic table displays the elements in increasing atomic number and show

periodicity of the physical and chemical properties of the elements relates to atomic

structure. As a basis for understanding this concept:

a. *Students know* how to relate the position of an element in the periodic table to its atomic number and atomic mass.

b. Students know how to use the periodic table to identify metals,

semimetals, nonmetals, and halogens.

c. *Students know* how to use the periodic table to identify alkali metals, alkaline earth metals and transition metals, trends in ionization energy, electronegativity, and the relative sizes of ions and atoms.

d. *Students know* how to use the periodic table to determine the number of electrons available for bonding.

e. Students know the nucleus of the atom is much smaller than the

atom yet contains most of its mass.

- f.\* *Students know* how to use the periodic table to identify the lanthanide, actinide, and transactinide elements and know that the transuranium elements were synthesized and identified in laboratory experiments through the use of nuclear accelerators.
- g.\* *Students know* how to relate the position of an element in the periodic table to its quantum electron configuration and to its reactivity with other elements in the table.
- h.\* *Students know* the experimental basis for Thomson's discovery of the electron, Rutherford's nuclear atom, Millikan's oil drop experiment, and Einstein's explanation of the photoelectric effect.

i.\* *Students know* the experimental basis for the development of the quantum theory of atomic structure and the historical importance of the Bohr model of the atom. j.\* *Students know* that spectral lines are the result of transitions of electrons between energy levels and that these lines correspond to photons with a frequency related to the energy spacing between levels using Planck's relationship.

# **Chemical Bonds**

2. Biological, chemical, and physical properties of matter result from the ability of atoms to form bonds from electrostatic forces between electrons and protons and between atoms and molecules. As a basis for understanding this concept:

a. *Students know* atoms combine to form molecules by sharing electrons to form covalent or metallic bonds or by exchanging electrons to form ionic bonds.

b. Students know chemical bonds between atoms in molecules such as H<sub>2</sub>, CH<sub>4</sub>, NH<sub>2</sub>,

HCCH<sub>2</sub>, N<sub>2</sub>, Cl<sub>2</sub>, and many large biological molecules are covalent.

2

c. *Students know* salt crystals, such as NaCl, are repeating patterns of positive and negative ions held together by electrostatic attraction.

d. *Students know* the atoms and molecules in liquids move in a random pattern relative to one another because the intermolecular forces are too weak to hold the atoms or molecules in a solid form.

e. Students know how to draw Lewis do

structures

f.\* *Students know* how to predict the shape of simple molecules and their polarity from Lewis dot structures.

g.\* Students know how electronegativity and ionization energy relate to bond formation.

h.\* *Students know* how to identify solids and liquids held together by van der Waals forces or hydrogen bonding and relate these forces to volatility and boiling/ melting point temperatures.

#### **Conservation of Matter and Stoichiometry**

3. The conservation of atoms in chemical reactions leads to the principle of

conservation of matter and the ability to calculate the mass of products and reactants. As a basis for understanding this concept:

a. Students know how to describe chemical reactions by writing balanced equations.

b. *Students know* the quantity *one mole* is set by defining one mole of carbon 12 atoms to have a mass of exactly 12 grams.

c. *Students know* one mole equals  $6.02^{23}$  particles (atoms or molecules).

d. *Students know* how to determine the molar mass of a molecule from its chemical formula and a table of atomic masses and how to convert the mass of a molecular substance to moles, number of particles, or volume of gas at standard temperature and pressure.

*e. Students know* how to calculate the masses of reactants and products in a chemical reaction from the mass of one of the reactants or products and the relevant atomic masses.

f.\* Students know how to calculate percent yield in a chemical reaction. g.\*

*Students know* how to identify reactions that involve oxidation and reduction and how to balance oxidation-reduction reactions.

## **Gases and Their Properties**

4. The kinetic molecular theory describes the motion of atoms and molecules and explains the properties of gases. As a basis for understanding this concept:

a. Students know the random motion of molecules and their collisions with a

surface create the observable pressure on that surface.

b. Students know the random motion of molecules explains the diffusion of gases.

c. Students know how to apply the gas laws to relations between the pressure,

temperature, and volume of any amount of an ideal gas or any mixture of ideal gases.

d. *Students know* the values and meanings of standard temperature and pressure (STP).

e. Students know how to convert between the Celsius and Kelvin temperature scales.

f. Students know there is no temperature lower than 0 Kelvin.

g.\* *Students know* the kinetic theory of gases relates the absolute temperature of a gas to the average kinetic energy of its molecules or atoms.

h.\* Students know how to solve problems by using the ideal gas law in the form  $PV\hat{\mathbf{0}}=\hat{\mathbf{0}}nRT$ .

i.\* *Students know* how to apply Dalton's law of partial pressures to describe the composition of gases and Graham's law to predict diffusion of gases.

## **Acids and Bases**

5. Acids, bases, and salts are three classes of compounds that form ions in water

solutions As a basis for understanding this concept:

a. Students know the observable properties of acids, bases, and salt solutions.

b. *Students know* acids are hydrogen-ion-donating and bases are hydrogen-ion-accepting substances.

c. *Students know* strong acids and bases fully dissociate and weak acids and bases partially dissociate.

d. Students know how to use the pH scale to characterize acid and base solutions.

e.\* Students know the Arrhenius, Brønsted-Lowry, and Lewis acid-base definitions.

f.\* Students know how to calculate pH from the hydrogen-ion concentration. g.\*

Students know buffers stabilize pH in acid-base reactions.

### Solutions

6. Solutions are homogeneous mixtures of two or more substances. As a basis for understanding this concept:

a. Students know the definitions of solute and solvent.

b. Students know how to describe the dissolving process at the molecular level by using

the concept of random molecular motion.

c. Students know temperature, pressure, and surface area affect the dissolving process.

d. *Students know* how to calculate the concentration of a solute in terms of grams per liter, molarity, parts per million, and percent composition.

mer, molarity, parts per minion, and percent composition.

e.\* *Students know* the relationship between the molality of a solute in a solution and the solution's depressed freezing point or elevated boiling point.

f.\* *Students know* how molecules in a solution are separated or purified by the methods of chromatography and distillation.

## **Chemical Thermodynamics**

7. Energy is exchanged or transformed in all chemical reactions and physical change of matter. As a basis for understanding this concept:

a. *Students know* how to describe temperature and heat flow in terms of the motion of molecules (or atoms).

b. *Students know* chemical processes can either release (exothermic) or absorb (endothermic) thermal energy.

c. *Students know* energy is released when a material condenses or freezes and is absorbed when a material evaporates or melts.

d. *Students know* how to solve problems involving heat flow and temperature changes, using known values of specific heat and latent heat of phase change.

e.\* Students know how to apply Hess's law to calculate enthalpy change in a reaction.

f.\* *Students know* how to use the Gibbs free energy equation to determine whether a reaction would be spontaneous.

## **Reaction Rates**

8. Chemical reaction rates depend on factors that influence the frequency of

collision of reactant molecules. As a basis for understanding this concept:

a. *Students know* the rate of reaction is the decrease in concentration of reactants or the increase in concentration of products with time.

b. Students know how reaction rates depend on such factors as

concentration, temperature, and pressure.

c. Students know the role a catalyst plays in increasing the reaction rate.

d.\* Students know the definition and role of activation energy in a chemical reaction.

## **Chemical Equilibrium**

9. Chemical equilibrium is a dynamic process at the molecular level. As a basis for understanding this concept:

a. *Students know* how to use Le<sup>®</sup>Chatelier's principle to predict the effect of changes in concentration, temperature, and pressure.

b. *Students know* equilibrium is established when forward and reverse reaction rates are equal.

c.\* *Students know* how to write and calculate an equilibrium constant expression for a reaction.

## **Physics**

The conceptual study of laws of motion, forces, energy and momentum, properties and states of matter, heat and thermodynamics, wave motion, sound, light, electricity and magnetism, and atomic and nuclear physics will be the main units of this course. The course will critically teach students the nature of light reflection, refraction, and polarization while also examining the direct current, heating and the effects of various chemicals. By looking at electrical devices students use everyday, they can begin to apply physics to their daily life.

Each unit in this course discusses a separate topic and through charts, surveys and discussions, ties the various topics together. For this course, the learning environment will be student centered, knowledge centered, assessment centered, and community centered. This course will be student centered to the extent that the teacher builds on knowledge students bring to the learning situations. This course will be knowledge centered to the extent that the teacher builds on knowledge students bring to the learning situations. This course will be knowledge centered to the extent that the teacher helps students develop an organized understanding of important concepts in the physics teaching discipline. This course will be assessment centered to the extent that the teacher makes students' thinking visible so that ideas can be presented and verified. This course will be community centered to the extent that the teacher establishes classroom norms that learning with understanding is valued and students feel free to explore what they do not understand.

## CA State Standards

# **Motion and Forces**

1. Newton's laws predict the motion of most objects. As a basis for understanding this concept:

a. Students know how to solve problems that involve constant speed and average speed.

b. *Students know* that when forces are balanced, no acceleration occurs; thus an object continues to move at a constant speed or stays at rest (Newton's first law).

c. *Students know* how to apply the law  $F\hat{\mathbf{v}}=\hat{\mathbf{v}}ma$  to solve one-dimensional motion problems that involve constant forces (Newton's second law).

d. *Students know* that when one object exerts a force on a second object, the second object always exerts a force of equal magnitude and in the opposite direction (Newton's third law).

e. *Students know* the relationship between the universal law of gravitation and the effect of gravity on an object at the surface of Earth.

f. *Students know* applying a force to an object perpendicular to the direction of its motion causes the object to change direction but not speed (e.g., Earth's gravitational force

causes a satellite in a circular orbit to change direction but not speed).

g. *Students know* circular motion requires the application of a constant force directed toward the center of the circle.

h.\* *Students know* Newton's laws are not exact but provide very good approximations unless an object is moving close to the speed of light or is small enough that quantum effects are important.

i.\* Students know how to solve two-dimensional trajectory problems.

j.\* *Students know* how to resolve two-dimensional vectors into their components and calculate the magnitude and direction of a vector from its components.

k.\* *Students know* how to solve two-dimensional problems involving balanced forces (statics).

1.\* *Students know* how to solve problems in circular motion by using the formula for centripetal acceleration in the following form:  $a\hat{\mathbf{v}} = \hat{\mathbf{v}} v^2/r$ .

m.\* *Students know* how to solve problems involving the forces between two electric charges at a distance (Coulomb's law) or the forces between two masses at a distance (universal gravitation).

### **Conservation of Energy and Momentum**

2. The laws of conservation of energy and momentum provide a way to predict and

describe the movement of objects. As a basis for understanding this concept:

a. Students know how to calculate kinetic energy by using the formula  $E\hat{\boldsymbol{v}}=\hat{\boldsymbol{v}}$  1/2) $mv^2$ .

b. *Students know* how to calculate changes in gravitational potential energy near Earth by using the formula (change in potential energy) =  $\widehat{\mathbf{w}}mgh$  (*h* is the change in the elevation).

c. *Students know* how to solve problems involving conservation of energy in simple systems, such as falling objects.

d. Students know how to calculate momentum as the product mv.

e. Students know momentum is a separately

conserved quantity different from energy.

f. Students know an unbalanced force on an object

produces a change in its momentum.

g. *Students know* how to solve problems involving elastic and inelastic collisions in one dimension by using the principles of conservation of momentum and energy.

h.\* *Students know* how to solve problems involving conservation of energy in simple systems with various sources of potential energy, such as capacitors and springs.

## Heat and Thermodynamics

3. Energy cannot be created or destroyed, although in many processes energy is transferred to the environment as heat. As a basis for understanding this concept:

a. *Students know* heat flow and work are two forms of energy transfer between systems.

b. *Students know* that the work done by a heat engine that is working in a cycle is the difference between the heat flow into the engine at high temperature and the heat flow out at a lower temperature (first law of thermodynamics) and that this is an example of the law of conservation of energy.

c. *Students know* the internal energy of an object includes the energy of random motion of the object's atoms and molecules, often referred to as *thermal energy*. The greater the temperature of the object, the greater the energy of motion of the atoms and molecules that make up the object.

d. *Students know* that most processes tend to decrease the order of a system over time and that energy levels are eventually distributed uniformly.

e. *Students know* that entropy is a quantity that measures the order or disorder of a system and that this quantity is larger for a more disordered system.

f.\* *Students know* the statement "Entropy tends to increase" is a law of statistical probability that governs all closed systems (second law of thermodynamics).

g.\* *Students know* how to solve problems involving heat flow, work, and efficiency in a heat engine and know that all real engines lose some heat to their surroundings.

#### Waves

4. Waves have characteristic properties that do not depend on the type of wave. As a basis for understanding this concept:

a. Students know waves carry energy from one place to another.

b. *Students know* how to identify transverse and longitudinal waves in mechanical media, such as springs and ropes, and on the earth (seismic waves).

c. *Students know* how to solve problems involving wavelength, frequency, and wave speed.

d. *Students know* sound is a longitudinal wave whose speed depends on the properties of the medium in which it propagates.

e. *Students know* radio waves, light, and X-rays are different wavelength bands in the spectrum of electromagnetic waves whose speed in a vacuum is approximately  $3\hat{\varrho}^{8}$  m/s (186,000 miles/second). × $\hat{\varrho}10$ 

f. *Students know* how to identify the characteristic properties of waves: interference (beats), diffraction, refraction, Doppler effect, and polarization.

### **Electric and Magnetic Phenomena**

5. Electric and magnetic phenomena are related and have many practical applications. As a basis for understanding this concept:

a. *Students know* how to predict the voltage or current in simple direct current (DC) electric circuits constructed from batteries, wires, resistors, and capacitors.

b. Students know how to solve problems involving Ohm's law.

c. *Students know* any resistive element in a DC circuit dissipates energy, which heats the resistor. Students can calculate the power (rate of energy dissipation) in any resistive circuit element by using the formula Power = IR (potential difference) ×  $_I$  (current) =  $I^2 R$ .

d. Students know the properties of transistors and the role of transistors in electric circuits.

e. *Students know* charged particles are sources of electric fields and are subject to the forces of the electric fields from other charges.

f. *Students know* magnetic materials and electric currents (moving electric charges) are sources of magnetic fields and are subject to forces arising from the magnetic fields of other sources.

g. *Students know* how to determine the direction of a magnetic field produced by a current flowing in a straight wire or in a coil.

h. *Students know* changing magnetic fields produce electric fields, thereby inducing currents in nearby conductors.

i. *Students know* plasmas, the fourth state of matter, contain ions or free electrons or both and conduct electricity.

j.\* Students know electric and magnetic fields contain energy and act as vector force fields.

k.\* *Students know* the force on a charged particle in an electric field is qE, where E is the electric field at the position of the particle and q is the charge of the particle.

1.\* *Students know* how to calculate the electric field resulting from a point charge.

m.\* Students know static electric fields have as their source some

arrangement of electric charges.

n.\* Students know the magnitude of the force on a moving particle (with

charge q) in a magnetic field is  $qvB \sin(a)$ , where a is the angle between

v and B (v and B are the magnitudes of vectors v and B, respectively),

and students use the right-hand rule to find the direction of this force.

o.\* *Students know* how to apply the concepts of electrical and gravitational potential energy to solve problems involving conservation of energy.

# Anatomy & Physiology

This course closely examines many of the structures and chemical processes that allow the human body to function as it should and maintain homeostasis. Students will build on their understanding of chemistry and physics as they learn about the role of many important molecules and compounds within the body and the chemical reactions necessary for life, as well as the function and structure of cells, tissues, organs, and organ systems- especially the organ systems that are central to life. Students will also learn about a variety of fields of medicine and research and some of the more prevalent diseases of today.

Students taking this course will conduct laboratory experiments, create diagrams and models, participate in dissections and virtual dissections, discuss and participate in lectures, complete individual and group research, and visit local institutions that will provide unique learning opportunities outside of the classroom.

# CA State Standards

# Physiology

9. As a result of the coordinated structures and functions of organ systems, the internal

environment of the human body remains relatively stable (homeostatic) despite changes in the outside environment. As a basis for understanding this concept:

a. *Students know* how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide.b. *Students know* how the nervous system mediates communication between different parts of the body and the body's interaction with the environment.

c. *Students know* how feedback loops in the nervous and endocrine systems regulate conditions in the body.

d. Students know the functions of the nervous system and the role of neurons in

transmitting electrochemical impulses.

e. *Students know* the roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response.

f.\* *Students know* the individual functions and sites of secretion of digestive enzymes (amylases, proteases, nucleases, lipases), stomach acid, and bile salts.

g.\* *Students know* the homeostatic role of the kidneys in the removal of nitrogenous wastes and the role of the liver in blood detoxification and glucose balance.

h.\* *Students know* the cellular and molecular basis of muscle contraction, including the roles of actin, myosin,  $Ca^{+2}$ , and ATP.

i.\* *Students know* how hormones (including digestive, reproductive, osmoregulatory) provide internal feedback mechanisms for homeostasis at the cellular level and in whole organisms.

10. Organisms have a variety of mechanisms to combat disease. As a basis for understanding the human immune response:

a. *Students know* the role of the skin in providing nonspecific defenses against infection.

b. Students know the role of antibodies in the body's response to infection.

c. *Students know* how vaccination protects an individual from infectious diseases. d. *Students know* there are important differences between bacteria and viruses with respect to their requirements for growth and replication, the body's primary defenses against bacterial and viral infections, and effective treatments of these infections.
e. *Students know* why an individual with a compromised immune system (for example, a person with AIDS) may be unable to fight off and survive infections by microorganisms that are usually benign.

f.\* *Students know* the roles of phagocytes, B-lymphocytes, and T-lymphocytes in the immune system.

## English - Language Arts

## English 9

Freshman English is a year long, introductory course to the literary canon. Students study different literary genres, including short stories, novels, poetry, drama, and non-fiction, grammar, and critical thinking skills. Students read five to eight novels and plays from the classical canon, including Charles Dickens and the Victorian Era. In addition, students read major works by Homer, Shakespeare, Harper Lee, and many others. Students are required to read both in class and out of class. In addition, students will complete formal writing assignments reflecting on selected pieces of literature. Significant grammar and composition units are studied; creative writing is developed through modeling themes and techniques from literature. Students develop mastery of thesis, support, and argumentation in composition. In addition, students self-critiquing. Graded writing assignments will include formal essays, timed pieces, and journal writings. Research skills, including internet research, culminate with the writing of a formal research paper. Students' study of literature continues with an increased emphasis on developing critical thinking skills.

Throughout the semester, the focus will be on developing one skill in particular: asking questions. In this course, an expectation will be for all students to be actively engaged in the reading and writing process by formulating and sharpening key questions about literary texts. Learning how to become a discriminating reader by posing interesting questions will be a central task per semester. Students are to think of each text as an "open" text. An "open" text is one that presents the reader with a multiplicity of contradictory meanings, and the pleasure of reading and rereading such a text is precisely to explore those contradictions. Indeed, as students will discover, each person brings different ideas to a literary text and draws different conclusions from it. While valuing these differences, it will also be their work not to fall into a flattening of meaning: not all interpretations and ideas are equally valid or productive. It will be their work to each have an opinion, an idea that matters, and to figure out where we stand in relation to the thoughts and opinions of others.

# *World Literature (10<sup>th</sup> grade)*

World Literature is designed to expose students to perspectives that differ from their own, ultimately leading them to a deeper understanding of other cultures and the works that represent them. The course is a study of representative works of world literature from Antiquity, the Middle Ages, and the Renaissance. The course emphasizes the study and consideration of the literary, cultural, and human significance of selected great works of the Western and non-Western literary traditions. An emphasis will be placed on writing, speaking, and research elements corresponding to California Standards. Therefore, students will thematically study, analyze, interpret, & critique various genres of literature and other media based on the historical and cultural context of the author and his/her culture.

An important goal of the class is to promote an understanding of the works in their cultural/historical contexts and of the enduring human values, which unite the different literary traditions. The course's pedagogy gives special attention to critical thinking and writing within a framework of cultural diversity as well as comparative and interdisciplinary analysis.

Throughout the semester, the focus will be on developing one skill in particular: asking questions. In this course, an expectation will be for all students to be actively engaged in the reading and writing process by formulating and sharpening key questions about literary texts. Learning how to become a discriminating reader by posing interesting questions will be a central task per

semester. Students are to think of each text as an "open" text. An "open" text is one that presents the reader with a multiplicity of contradictory meanings, and the pleasure of reading and rereading such a text is precisely to explore those contradictions. Indeed, as students will discover, each person brings different ideas to a literary text and draws different conclusions from it. While valuing these differences, it will also be their work not to fall into a flattening of meaning: not all interpretations and ideas are equally valid or productive. It will be their work to each have an opinion, an idea that matters, and to figure out where we stand in relation to the thoughts and opinions of others.

Such texts that may be read within the course are *Antigone* by Sophocles, *All Quiet on the Western Front* by Erich Marie Remarque, *Don Quixote of La Mancha* by Miguel de Cervantes, *Lord of the Flies* by William Golding and others.

# CA State Standards for ELA 9th & 10th

Reading

1.0 Word Analysis, Fluency, and Systematic Vocabulary Development

1.1 Identify and use the literal and figurative meanings of words and understand word derivations.

1.2. Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.

1.3 Identify Greek, Roman, and Norse mythology and use the knowledge to understand the origin and meaning of new words (e.g., the word *narcissistic* drawn from the myth of Narcissus and Echo).

2.0 Reading Comprehension (Focus on Informational Materials) Students read and understand grade-level-appropriate material. They analyze the organizational patterns, arguments, and positions advanced.

## Structural Features of Informational Materials

2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.

2.2 Prepare a bibliography of reference materials for a report using a variety of consumer, workplace and public documents.

## Comprehension and Analysis of Grade-Level-Appropriate Text

2.3 Generate relevant questions about readings on issues that can be researched.

2.4 Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate comprehension.

2.5 Extend ideas presented in primary or secondary sources through original analysis, evaluation, and elaboration.

2.6 Demonstrate use of sophisticated learning tools by following technical directions (e.g., those found with graphic calculators and specialized software programs and in access guides to World Wide Web sites on the Internet).

## Expository Critique

2.7 Critique the logic of functional documents by examining the sequence of information procedures in anticipation of possible reader misunderstandings.

2.8 Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

3.0 Literary Response and Analysis Students read and respond to historically or culturally significant works of literature that reflect and enhance their studies of history and social science.

## Structural Features of Literature

3.1 Articulate the relationship between the expressed purposes and the characteristics of different forms of dramatic literature (e.g., comedy, tragedy, drama, dramatic monologue).

3.2 Compare and contrast the presentation of a similar theme or topic across genres to explain how the selection of genre shapes the theme or topic.

## Narrative Analysis of Grade-Level-Appropriate Text

3.3 Analyze interactions between main and subordinate characters in a literary text (e.g., internal and external conflicts, motivations, relationships, influences) and explain the way those interactions affect the plot.

3.4 Determine characters' traits by what the characters say about themselves in narration, dialogue, dramatic monologue, and soliloquy.

3.5 Compare works that express a universal theme and provide evidence to support the ideas expressed in a work.

3.6 Analyze and trace an author's development of time and sequence, including the use of complex literary devices (e.g., foreshadowing, flashbacks).

3.7 Recognize and understand the significance of various literary devices, including figurative language, imagery, allegory, and symbolism, and explain their appeal.

3.8 Interpret and evaluate the impact of ambiguities, subtleties, contradictions, ironies, and incongruities in a text.

3.9 Explain how voice, persona, and the choice of a narrator affect characterization and the tone, plot, and credibility of a text.

3.10 Identify and describe the function of dialogue, scene designs, soliloquies, asides, and character foils in dramatic literature. *Literary Criticism* 

3.11 Evaluate the aesthetic qualities of style, including the impact of diction and figurative language on tone, mood, and theme, using the terminology of literary criticism. (Aesthetic approach)

3.12 Analyze the way in which a work of literature is related to the themes and issues of its historical period. (Historical approach)

### Writing

### 1.0 Writing Strategies

Students write coherent and focused essays that convey a well-defined perspective and tightly reasoned argument.

### Organization and Focus

1.1 Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.

1.2 Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.

## Research and Technology

1.3 Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.

1.4 Develop the main ideas within the body of the composition through supporting evidence (e.g., scenarios, commonly held beliefs, hypotheses, definitions).

1.5 Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents).

1.6 Integrate quotations and citations into a written text while maintaining the flow of ideas.

1.7 Use appropriate conventions for documentation in the text, notes, and bibliographies by adhering to those in style manuals (e.g., *Modern Language Association Handbook, The Chicago Manual of Style*).

1.8 Design and publish documents by using advanced publishing software and graphic programs. *Evaluation and Revision* 

1.9 Revise writing to improve the logic and coherence of the organization and controlling perspective, the precision of word choice, and the tone by taking into consideration the audience, purpose, and formality of the context.

2.0 Writing Applications (Genres and Their Characteristics) Students combine the rhetorical strategies of narration, exposition, persuasion, and description to produce texts of at least 1,500 words each.

2.1 Write biographical or autobiographical narratives or short stories:

a. Relate a sequence of events and communicate the significance of the events to the audience. b. Locate scenes and incidents in specific places. c. Describe with concrete sensory details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; use interior monologue to depict the characters' feelings. d. Pace the presentation of actions to accommodate changes in time and mood. e. Make effective use of

descriptions of appearance, images, shifting perspectives, and sensory details.

2.2 Write responses to literature: a. Demonstrate a comprehensive grasp of the significant ideas of literary works. b. Support important ideas and viewpoints through accurate and detailed references to the text or to other works. c. Demonstrate awareness of the author's use of stylistic devices and an appreciation of the effects created. d. Identify and assess the impact of perceived ambiguities, nuances, and complexities within the text.

2.3 Write expository compositions, including analytical essays and research reports: a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives. b. Convey information and ideas from primary and secondary sources accurately and coherently. c. Make distinctions between the relative value and significance of specific data, facts, and ideas. d. Include visual aids by employing appropriate technology to organize and record information on charts, maps, and graphs. e. Anticipate and address readers' potential misunderstandings, biases, and expectations. f. Use technical terms and notations accurately.

2.4 Write persuasive compositions: a. Structure ideas and arguments in a sustained and logical fashion. b. Use specific rhetorical devices to support assertions (e.g., appeal to logic through reasoning; appeal to emotion or ethical belief; relate a personal anecdote, case study, or analogy).

# Freshman Composition

Freshman Composition is designed to help students develop the rhetorical knowledge and practical habits of successful high school and college writers. In teaching basic writing in Freshman Composition, there are some principles to always keep in mind. Not all students come into class having the same abilities. They can however all profit from the class if it takes the students from the basic level and progresses from there. The basic level assumes that they can write complete sentences. There are three areas of writing that should be emphasized throughout the course. They are Organization, Clarity, and Support. They are all related concepts in that each strengthens the others, but each concept will be focused on. By the end of the course, students prepare a variety of public texts by applying knowledge of composing processes, rhetorical strategies, and textual conventions.

While mastering the three areas of writing, students will also explore the principles of rhetoric and effective expository writing. Students will learn to use the concepts of purpose, audience, and genre as they develop their own documents; to generate claims, ideas, supporting details, and evidence; to use appropriate expository structures; to produce drafts and to revise their work as they develop a final product; to produce a prose style that is readable, effective, and free from error; and to develop critical skills through an analysis of good expository writing. All reading material will be non-fiction.

## CA State Standards

## Writing

## 2.0 Writing Strategies

Students write coherent and focused essays that convey a well-defined perspective and tightly reasoned argument.

## Organization and Focus

1.1 Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.

1.2 Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.

### Research and Technology

1.3 Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.

1.4 Develop the main ideas within the body of the composition through supporting evidence (e.g., scenarios, commonly held beliefs, hypotheses, definitions).

1.5 Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents).

1.6 Integrate quotations and citations into a written text while maintaining the flow of ideas.

1.7 Use appropriate conventions for documentation in the text, notes, and bibliographies by adhering to those in style manuals (e.g., *Modern Language Association Handbook, The Chicago Manual of Style*).

1.8 Design and publish documents by using advanced publishing software and graphic programs. *Evaluation and Revision* 

1.9 Revise writing to improve the logic and coherence of the organization and controlling perspective, the precision of word choice, and the tone by taking into consideration the audience, purpose, and formality of the context.

2.0 Writing Applications (Genres and Their Characteristics) Students combine the rhetorical strategies of narration, exposition, persuasion, and description to produce texts of at least 1,500 words each.

2.1 Write biographical or autobiographical narratives or short stories:

a. Relate a sequence of events and communicate the significance of the events to the audience. b. Locate scenes and incidents in specific places. c. Describe with concrete sensory details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; use interior monologue to depict the characters' feelings. d. Pace the presentation of actions to accommodate changes in time and mood. e. Make effective use of descriptions of appearance, images, shifting perspectives, and sensory details.

2.2 Write responses to literature: a. Demonstrate a comprehensive grasp of the significant ideas of literary works. b. Support important ideas and viewpoints through accurate and detailed references to the text or to other works. c. Demonstrate awareness of the author's use of stylistic devices and an appreciation of the effects created. d. Identify and assess the impact of perceived ambiguities, nuances, and complexities within the text.

2.3 Write expository compositions, including analytical essays and research reports: a. Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives. b. Convey information and ideas from primary and secondary sources accurately and coherently. c. Make distinctions between the relative value and significance of specific data, facts, and ideas. d. Include visual aids by employing appropriate technology to organize and

record information on charts, maps, and graphs. e. Anticipate and address readers' potential misunderstandings, biases, and expectations. f. Use technical terms and notations accurately.

# American Literature (11<sup>th</sup> grade)

The core of the curriculum is a chronological or thematic study of American literature, its literary periods and major writers. Outside reading focuses on broader philosophical ideas, encouraging wider reading including classics by American authors. This course provides an intensive study of the works of several major American authors. Emphasis is placed on American history, culture, and the literary merits. Readings will include poems, novels, essays, autobiographies, short stories, social commentaries, political tracts, and philosophy, originating in different regions and social settings across the country. Some works are chosen from their historical importance, others for their thematic insight, others for their aesthetic virtues. Taken together, they form a rich collection of imaginative and critical writing, composed by former slaves and United States Presidents, by immigrants and expatriates, by Harvard professors and unknown spinsters.

To the contrary, the traditional canon is an essential element of this course, and the syllabus includes writers like Mark Twain, William Faulkner, T.S. Eliot, and Ernest Hemingway. The goal is to juxtapose their work with African American writing and actively pursue discussions arising from the similarities, differences, and variations that may present themselves. By placing an added focus on African American writers and issues of race, a specific "lens" is applied to this course. Thus, the parameters for this vision are defined. This can be the most effective way to approach American literature. As a whole, American literature is too massive to magically be "taken in" by a general method of study. The best way to enter into American literature is by applying a series of lenses. Race may be our focus now, but beyond this course, students may approach the works of other ethnic groups.

# British Literature (12<sup>th</sup> grade)

Students will read a wide variety of British literature from the Anglo-Saxon invasion through the first half of 20<sup>th</sup> century. In addition to the assigned text, students will also be responsible for outside independent reading. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Readings in the first semester of the course range from *Beowulf* and *The Canterbury Tales* through works by Sir Thomas Malory, Edmund Spencer, Christopher Marlowe, Sir Walter Scott, John Donne and Andrew Marvell to discuss works from the Anglo-Saxon invasion to the Middle Ages and the 18<sup>th</sup> Century. Readings in the second semester of the course consist of major works of British Literature from 1789 to the present, including such texts by Blake, Byron, Wordsworth, Keats, Shelly, Tennyson, Browning, Arnold, Carlyle, Hardy, Conrad, Yeats, Woolfe, Joyce and Eliot. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

Students will be responsible for learning through tests, quizzes, group and individual presentations, and a variety of writing assignments. The writing will stem directly from the reading and provide students the opportunity to improve expository and persuasive skills. Class writing activities will also include some informal, personal narrative, and creative writing to help clarify ideas and stimulate discussion about the readings.

The course focuses on the specific history and development of British literature. Therefore one main objective is for students to learn information about writers, their works, and literary movements.

Throughout the semester, the focus will be on developing one skill in particular: asking questions. In this course, an expectation will be for all students to be actively engaged in the reading and writing process by formulating and sharpening key questions about literary texts. Learning how to become a discriminating reader by posing interesting questions will be a central task per semester. Students are to think of each text as an "open" text. It will be their work to each have an opinion, an idea that matters, and to figure out where we stand in relation to the thoughts and opinions of others.

# CA State Standards for 11th & 12th grade

1.0 Word Analysis, Fluency, and Systematic Vocabulary Development Students apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately.

## Vocabulary and Concept Development

1.1 Trace the etymology of significant terms used in political science and history.

1.2 Apply knowledge of Greek, Latin, and Anglo-Saxon roots and affixes to draw inferences concerning the meaning of scientific and mathematical terminology.

1.3 Discern the meaning of analogies encountered, analyzing specific comparisons as well as relationships and inferences.

2.0 Reading Comprehension (Focus on Informational Materials) Students read and understand grade-level-appropriate material. They analyze the organizational patterns, arguments, and positions advanced.

## Structural Features of Informational Materials

2.1 Analyze both the features and the rhetorical devices of different types of public docu-ments (e.g., policy statements, speeches, debates, platforms) and the way in which authors use those features and devices. *Comprehension and Analysis of Grade-Level-Appropriate Text* 

2.2 Analyze the way in which clarity of meaning is affected by the patterns of organization, hierarchical structures, repetition of the main ideas, syntax, and word choice in the text.

2.3 Verify and clarify facts presented in other types of expository texts by using a variety of consumer, workplace, and public documents.

2.4 Make warranted and reasonable assertions about the author's arguments by using elements of the text to defend and clarify interpretations.

2.5 Analyze an author's implicit and explicit philosophical assumptions and beliefs about a subject.

## Expository Critique

- 2.6 Critique the power, validity, and truthfulness of arguments set forth in public documents; their appeal to both friendly and hostile audiences; and the extent to which the arguments anticipate and address reader concerns and counterclaims (e.g., appeal to reason, to authority, to pathos and emotion).
- 3.0 Literary Response and Analysis

Students read and respond to historically or culturally significant works of literature that reflect and enhance their studies of history and social science. *Structural Features of Literature* 

*3.1* Analyze characteristics of subgenres (e.g., satire, parody, allegory, pastoral) that are used in poetry, prose, plays, novels, short stories, essays, and other basic genres.

## Narrative Analysis of Grade-Level-Appropriate Text

3.2 Analyze the way in which the theme or meaning of a selection represents a view or comment on life, using textual evidence to support the claim.

3.3 Analyze the ways in which irony, tone, mood, the author's style, and the "sound" of language achieve specific rhetorical or aesthetic purposes or both.

3.4 Analyze ways in which poets use imagery, personification, figures of speech, and sounds to evoke readers' emotions.

3.5 Analyze recognized works of American literature representing a variety of genres and traditions: a. Trace the development of American literature from the colonial period forward. b. Contrast the major periods, themes, styles, and trends and describe how works by members of different cultures relate to one another in each period. c. Evaluate the philosophical, political, religious, ethical, and social influences of the historical period that shaped the characters, plots, and settings.

3.6 Analyze the way in which authors through the centuries have used archetypes drawn from myth and tradition in literature, film, political speeches, and religious writings (e.g., how the archetypes of banishment from an ideal world may be used to interpret Shakespeare's tragedy *Macbeth*).

3.7 Analyze recognized works of world literature from a variety of authors: a. Contrast the major literary forms, techniques, and characteristics of the major literary periods (e.g., Homeric Greece, medieval, romantic, neoclassic, modern). b. Relate literary works and authors to the major themes and issues of their eras. c. Evaluate the philosophical, political, religious, ethical, and social influences of the historical period that shaped the characters, plots, and settings.

# Literary Criticism

3.8 Analyze the clarity and consistency of political assumptions in a selection of literary works or essays on the topics (e.g. suffrage, women's role in organized labor).

3.9 Analyze the philosophical arguments presented in literary works to determine whether the authors' positions have contributed to the quality of each work and the credibility of the characters. (Philosopical approach)

## Advanced Composition

While continuing to build on the knowledge and skills developed in Freshman Composition and throughout NWCHS's English courses, Advanced Composition focuses on the relationship between critical reading and writing in an academic context. Students will learn to read sources carefully and critically and to evaluate information and arguments; to represent their reading accurately and fairly through summary, paraphrase, and quotation; and to use sources appropriately in their own writing. They will also learn to use an academic library and
appropriate research tools. These reading, writing, and research skills will be developed in the context of preparing critical analyses and arguments, including a formal research paper.

Students in Advanced Composition complete four to six major assignments including a research paper. Major assignments of the course reflect the following emphasis: Analysis and Response to Argument; Construction and Presentation of Argument; Survey and Annotation of Resources; and Academic Research Essay. The final research paper must reveal genuine research with the assimilation of a number of appropriate sources and meet all standards of writing and research presented in class.

#### CA State Standards

### **1.0** Writing Strategies

Students write coherent and focused texts that convey a well-defined perspective and tightly reasoned argument. The writing demonstrates students' awareness of the audience and purpose and progression through the stages of the writing process.

#### Organization and Focus

1.1 Demonstrate an understanding of the elements of discourse (e.g., purpose, speaker, audience, form) when completing narrative, expository, persuasive, or descriptive writing assignments.

1.2 Use point of view, characterization, style (e.g., use of irony), and related elements for specific rhetorical and aesthetic purposes.

1.3 Structure ideas and arguments in a sustained, persuasive, and sophisticated way and support them with precise and relevant examples.

1.4 Enhance meaning by employing rhetorical devices, including the extended use of parallelism, repetition, and analogy; the incorporation of visual aids (e.g., graphs, tables, pictures); and the issuance of a call for action.

1.5 Use language in natural, fresh, and vivid ways to establish a specific tone.

### Research and Technology

1.6 Develop presentations by using clear research questions and creative and critical research strategies (e.g., field studies, oral histories, interviews, experiments, electronic sources).

1.7 Use systematic strategies to organize and record information (e.g., anecdotal scripting, annotated bibliographies).

1.8 Integrate databases, graphics, and spreadsheets into word-processed documents. *Evaluation and Revision* 

1.9 Revise text to highlight the individual voice, improve sentence variety and style, and enhance subtlety of meaning and tone in ways that are consistent with the purpose, audience, and genre.

2.0 Writing Applications (Genres and Their Characteristics) Students combine the rhetorical strategies of narration, exposition, persuasion, and description to produce texts of at least 1,500 words each.

2.1 Write fictional, autobiographical, or biographical narratives: a. Narrate a sequence of events and communicate their significance to the audience. b. Locate scenes and incidents in specific

places. c. Describe with concrete sensory details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; use interior monologue to depict the characters' feelings. d. Pace the presentation of actions to accommodate temporal, spatial, and dramatic mood changes. e. Make effective use of descriptions of appearance, images, shifting perspectives, and sensory details.

2.2 Write responses to literature: a. Demonstrate a comprehensive understanding of the significant ideas in works or passages. b. Analyze the use of imagery, language, universal themes, and unique aspects of the text. c. Support important ideas and viewpoints through accurate and detailed references to the text and to other works. d. Demonstrate an understanding of the author's use of stylistic devices and an apprecia-tion of the effects created. e. Identify and assess the impact of perceived ambiguities, nuances, and complexities within the text.

2.3 Write reflective compositions: a. Explore the significance of personal experiences, events, conditions, or concerns by using rhetorical strategies (e.g., narration, description, exposition, persuasion). b. Draw comparisons between specific incidents and broader themes that illustrate the writer's important beliefs or generalizations about life. c. Maintain a balance in describing individual incidents and relate those incidents to more general and abstract ideas.

2.4 Write historical investigation reports: a. Use exposition, narration, description, argumentation, or some combination of rhetori-cal strategies to support the main proposition. b. Analyze several historical records of a single event, examining critical relationships between elements of the research topic. c. Explain the perceived reason or reasons for the similarities and differences in historical records with information derived from primary and secondary sources to support or enhance the presentation. d. Include information from all relevant perspectives and take into consideration the validity and reliability of sources. e. Include a formal bibliography.

2.5 Write job applications and résumés: a. Provide clear and purposeful information and address the intended audience appro-priately. b. Use varied levels, patterns, and types of language to achieve intended effects and aid comprehension. c. Modify the tone to fit the purpose and audience. d. Follow the conventional style for that type of document (e.g., résumé, memorandum) and use page formats, fonts, and spacing that contribute to the readability and impact of the document.

2.6 Deliver multimedia presentations: a. Combine text, images, and sound and draw information from many sources (e.g., television broadcasts, videos, films, newspapers, magazines, CD-ROMs, the Internet, electronic media-generated images). b. Select an appropriate medium for each element of the presentation. c. Use the selected media skillfully, editing appropriately and monitoring for quality. d. Test the audience's response and revise the presentation accordingly.

### **History - Social Sciences**

# World History (10th grade)

By the end of the course, students will have a solid foundation of the problems and success of the 20<sup>th</sup> century and how they affect life today in the 21<sup>st</sup> century. Throughout the year students will develop critical questioning and thinking skills to objectively study history using a variety of primary and secondary sources. Students will participate and learn through structured class simulations, college level class discussions, multimedia presentations (including the internet, documentary and feature films, broadcast news including television and radio, and a host of others), individual and group projects, formal research essays, and field trips.

In World History students will first review the principles and the ideas of democracy and citizen participation from its early beginnings in Greece (Plato's *Republic* and Aristotle's *Politics*) and analyze how they influenced revolutions thousands of years later in England (Glorious Revolution), the United States (American Revolution), Latin America (Simon Bolivar's campaigns) and in France (French Revolution). As these countries came into their own they began stretching their influences into countries around the world.

Students will examine the role the industrial revolution and capitalism played in the era of New Imperialism with European and American expansions in Latin America, Asia (including China, Southeast Asia, and the Philippines), and Africa. Students will begin to connect the successes and failures of these endeavors to future partnerships and conflicts around the globe.

Students will understand the causes and lasting political and social effects of the two World Wars including the beginning of the Cold War and the division of the world into Communist and Capitalist spheres of influences. Students should understand these two divisions and how they led to further problems in the world like the Korean War, Cuban Missile Crisis, and the Vietnam War.

By the end of the year, students will have a solid foundation of the problems and success of the 20<sup>th</sup> century and how they affect life today in the 21<sup>st</sup> century. Throughout the year students will have developed critical questioning and thinking skills so they can objectively study history using a variety of primary and secondary sources.

### CA State Standards

# 10.1 Students relate the moral and ethical principles in ancient Greek and Roman philosophy, in Judaism, and in Christianity to the development of Western political thought.

- 1. Analyze the similarities and differences in Judeo-Christian and Greco-Roman views of law, reason and faith, and duties of the individual.
- 2. Trace the development of the Western political ideas of the rule of law and illegitimacy of tyranny, using selections from Plato's *Republic* and Aristotle's *Politics*.
- 3. Consider the influence of the U.S. Constitution on political systems in the contemporary world.

# 10.2 Students compare and contrast the Glorious Revolution of England, the American Revolution, and the French Revolution and their enduring effects worldwide on

# the political expectations for self-government and individual liberty.

1. Compare the major ideas of philosophers and their effects on the democratic revolutions in England, the United States, France, and Latin America (e.g., John Locke Charles-Louis Montesquieu, Jean-Jacques Rousseau, Simón Bolívar, Thomas Jefferson, James Madison).

2. List the principles of the Magna Carta, the English Bill of Rights (1689), the American Declaration of Independence (1776), the French Declaration of the Rights of Man and the Citizen (1789), and the U.S. Bill of Rights (1791).

3. Understand the unique character of the American Revolution, its spread to other parts of the world, and its continuing significance to other nations.

- 4. Explain how the ideology of the French Revolution led France to develop from constitutional monarchy to democratic despotism to the Napoleonic empire.
- 5. Discuss how nationalism spread across Europe with Napoleon but was repressed for a generation under the Congress of Vienna and Concert of Europe until the Revolutions of 1848.

# 10.3 Students analyze the effects of the Industrial Revolution in England, France, Germany, Japan, and the United States.

- 1. Analyze why England was the first country to industrialize.
- 2. Examine how scientific and technological changes and new forms of energy brought about massive social, economic, and cultural change (e.g., the inventions and discoveries of James Watt, Eli Whitney, Henry Bessemer, Louis Pasteur, Thomas Edison).
- 3. Describe the growth of population, rural to urban migration, and growth of cities associated with the Industrial Revolution.
- 4. Trace the evolution of work and labor, including the demise of the slave trade and the effects of immigration, mining and manufacturing, division of labor, and the union movement.
- 5. Understand the connections among natural resources, entrepreneurship, labor, and capital in an industrial economy.
- 6. Analyze the emergence of capitalism as a dominant economic pattern and the responses to it, including Utopianism, Social Democracy, Socialism, and Communism.
- 7. Describe the emergence of Romanticism in art and literature (e.g., the poetry of William Blake and William Wordsworth), social criticism (e.g., the novels of Charles Dickens), and the move away from Classicism in Europe.

# 10.4 Students analyze patterns of global change in the era of New Imperialism in at least two of the following regions or countries: Africa, Southeast Asia, China, India, Latin America, and the Philippines.

- 1. Describe the rise of industrial economies and their link to imperialism and colonialism (e.g., the role played by national security and strategic advantage; moral issues raised by the search for national hegemony, Social Darwinism, and the missionary impulse; material issues such as land, resources, and technology).
- 2. Discuss the locations of the colonial rule of such nations as England, France, Germany, Italy, Japan, the Netherlands, Russia, Spain, Portugal, and the United States.

3. Explain imperialism from the perspective of the colonizers and the colonized and the varied immediate and long-term responses by the people under colonial rule.

4. Describe the independence struggles of the colonized regions of the world, including the roles

of leaders, such as Sun Yat-sen in China, and the roles of ideology and religion. 10.5 Students analyze the causes and course of the First World War.

1. Analyze the arguments for entering into war presented by leaders from all sides of the Great War and the role of political and economic rivalries, ethnic and ideological conflicts, domestic discontent and disorder, and propaganda and nationalism in mobilizing the civilian population in support of "total war."

2. Examine the principal theaters of battle, major turning points, and the importance of geographic factors in military decisions and outcomes (e.g., topography, waterways, distance, climate).

3. Explain how the Russian Revolution and the entry of the United States affected the course and outcome of the war.

4. Understand the nature of the war and its human costs (military and civilian) on all sides of the conflict, including how colonial peoples contributed to the war effort.

5. Discuss human rights violations and genocide, including the Ottoman government's actions against Armenian citizens.

# 10.6 Students analyze the effects of the First World War.

- 1. Analyze the aims and negotiating roles of world leaders, the terms and influence of the Treaty of Versailles and Woodrow Wilson's Fourteen Points, and the causes and effects of the United States's rejection of the League of Nations on world politics.
- 2. Describe the effects of the war and resulting peace treaties on population movement, the international economy, and shifts in the geographic and political borders of Europe and the Middle East.
- 3. Understand the widespread disillusionment with prewar institutions, authorities, and values that resulted in a void that was later filled by totalitarians.
- 4. Discuss the influence of World War I on literature, art, and intellectual life in the West (e.g., Pablo Picasso, the "lost generation" of Gertrude Stein, Ernest Hemingway).

# 10.7 Students analyze the rise of totalitarian governments after World War I.

- 1. Understand the causes and consequences of the Russian Revolution, including Lenin's use of totalitarian means to seize and maintain control (e.g., the Gulag).
- 2. Trace Stalin's rise to power in the Soviet Union and the connection between economic policies, political policies, the absence of a free press, and systematic violations of human rights (e.g., the Terror Famine in Ukraine).
- 3. Analyze the rise, aggression, and human costs of totalitarian regimes (Fascist and Communist) in Germany, Italy, and the Soviet Union, noting especially their common and dissimilar traits.

### 10.8 Students analyze the causes and consequences of World War II.

- 1. Compare the German, Italian, and Japanese drives for empire in the 1930s, including the 1937 Rape of Nanking, other atrocities in China, and the Stalin-Hitler Pact of 1939.
- 2. Understand the role of appeasement, nonintervention (isolationism), and the domestic distractions in Europe and the United States prior to the outbreak of World War II.
- 3. Identify and locate the Allied and Axis powers on a map and discuss the major turning points of the war, the principal theaters of conflict, key strategic decisions, and the resulting war conferences and political resolutions, with emphasis on the importance of geographic factors.

- 4. Describe the political, diplomatic, and military leaders during the war (e.g., Winston Churchill, Franklin Delano Roosevelt, Emperor Hirohito, Adolf Hitler, Benito Mussolini, Joseph Stalin, Douglas MacArthur, Dwight Eisenhower).
- 5. Analyze the Nazi policy of pursuing racial purity, especially against the European Jews; its transformation into the Final Solution; and the Holocaust that resulted in the murder of six million Jewish civilians.
- 6. Discuss the human costs of the war, with particular attention to the civilian and military losses in Russia, Germany, Britain, the United States, China, and Japan.

### 10.9 Students analyze the international developments in the post- World War II world.

- 1. Compare the economic and military power shifts caused by the war, including the Yalta Pact, the development of nuclear weapons, Soviet control over Eastern European nations, and the economic recoveries of Germany and Japan.
- 2. Analyze the causes of the Cold War, with the free world on one side and Soviet client states on the other, including competition for influence in such places as Egypt, the Congo, Vietnam, and Chile.
- 1. Understand the importance of the Truman Doctrine and the Marshall Plan, which established the pattern for America's postwar policy of supplying economic and military aid to prevent the spread of Communism and the resulting economic and political competition in arenas such as Southeast Asia (i.e., the Korean War, Vietnam War), Cuba, and Africa.
- 2. Analyze the Chinese Civil War, the rise of Mao Tse-tung, and the subsequent political and economic upheavals in China (e.g., the Great Leap Forward, the Cultural Revolution, and the Tiananmen Square uprising).
- 3. Describe the uprisings in Poland (1956), Hungary (1956), and Czechoslovakia (1968) and those countries' resurgence in the 1970s and 1980s as people in Soviet satellites sought freedom from Soviet control.
- 4. Understand how the forces of nationalism developed in the Middle East, how the Holocaust affected world opinion regarding the need for a Jewish state, and the significance and effects of the location and establishment of Israel on world affairs.
- 5. Analyze the reasons for the collapse of the Soviet Union, including the weakness of the command economy, burdens of military commitments, and growing resistance to Soviet rule by dissidents in satellite states and the non-Russian Soviet republics.
- 6. Discuss the establishment and work of the United Nations and the purposes and functions of the Warsaw Pact, SEATO, NATO, and the Organization of American States.

# 10.10 Students analyze instances of nation-building in the contemporary world in at least two of the following regions or countries: the Middle East, Africa, Mexico and other parts of Latin America, and China.

- 1. Understand the challenges in the regions, including their geopolitical, cultural, military, and economic significance and the international relationships in which they are involved.
- 2. Describe the recent history of the regions, including political divisions and systems, key leaders, religious issues, natural features, resources, and population patterns.
- 3. Discuss the important trends in the regions today and whether they appear to serve the cause of individual freedom and democracy.

10.11 Students analyze the integration of countries into the world economy and the information, technological, and communications revolutions (e.g., television, satellites, computers).

# US History (11th grade)

By the end of US History, students will have a solid foundation of the economic, social, political, and military history of the United States with an emphasis on the huge turning points between the 1920s through the1980s. Students will build upon their global knowledge learned in 10<sup>th</sup> grade analyzing where the United States fits in the global picture over this period of time and the steps the country took to become a global super power. Students will participate and learn through structured class simulations, college level class discussions, multimedia presentations (including the internet, documentary and feature films, broadcast news including television and radio, and a host of others), individual and group projects, formal research essays, and field trips.

The class will begin with a comprehensive review of the founding principals and examine how the US succeeded or failed in implementing the ideals found in the countries founding documents (The Declaration of Independence and The Constitution). Time will be taken to examine the effects of the Civil War and the industrial revolution putting the United States on track to become the most dominant country in the world.

Students will study the migration of people from rural to urban cities and the problems associated with workplace safety, issues surrounding immigration and treatment of immigrants in large cities. They will study the lives of those living through the Roaring 20's focusing on literature and music, major domestic and international developments including Prohibition and the rise of organized crime, and the birth of the movie industry diffusing popular culture to the rest of the world. Unfortunately, students will learn the downside of such explosive growth and lax regulations examining the causes and impacts of the Great Depression. Students will examine the effects and controversies surrounding Roosevelt's New Deal including the increase of the federal government.

Students will explore the main causes, course, and ultimate lasting effects of World War Two focusing on FDR's foreign policy, the average American soldier and contributions of different military groups (Navajo Code Talkers, Tuskegee Airmen et al). At the conclusion of the war, students will examine the attempts to rebuild Europe and begin to focus on the conflict between capitalist and communist countries focusing on US foreign policy since WWII and major Cold War events.

Lastly, students will examine the major steps taken to gain equal civil and voting rights in the US from the 1940s through the Civil Rights era in the 1960s but also looking at the feminist movements of the 60's and 70's.

### CA State Standards

# 11.1 Students analyze the significant events in the founding of the nation and its attempts to realize the philosophy of government described in the Declaration of Independence.

- 1. Describe the Enlightenment and the rise of democratic ideas as the context in which the nation was founded.
- 2. Analyze the ideological origins of the American Revolution, the Founding Fathers' philosophy of divinely bestowed unalienable natural rights, the debates on the drafting and ratification of the Constitution, and the addition of the Bill of Rights.
- 3. Understand the history of the Constitution after 1787 with emphasis on federal versus state

authority and growing democratization.

4. Examine the effects of the Civil War and Reconstruction and of the industrial revolution, including demographic shifts and the emergence in the late nineteenth century of the United States as a world power.

# 11.2 Students analyze the relationship among the rise of industrialization, large-scale

### rural-to-urban migration, and massive immigration from Southern and Eastern Europe.

- 1. Know the effects of industrialization on living and working conditions, including the portrayal of working conditions and food safety in Upton Sinclair's *The Jungle*.
- 2. Describe the changing landscape, including the growth of cities linked by industry and trade, and the development of cities divided according to race, ethnicity, and class.
- 3. Trace the effect of the Americanization movement.
- 4. Analyze the effect of urban political machines and responses to them by immigrants and middle-class reformers.
- 5. Discuss corporate mergers that produced trusts and cartels and the economic and political policies of industrial leaders.

6. Trace the economic development of the United States and its emergence as a major industrial power, including its gains from trade and the advantages of its physical geography.

7. Analyze the similarities and differences between the ideologies of Social Darwinism and Social Gospel (e.g., using biographies of William Graham Sumner, Billy Sunday, Dwight L. Moody).

8. Examine the effect of political programs and activities of Populists.

9. Understand the effect of political programs and activities of the Progressives (e.g., federal regulation of railroad transport, Children's Bureau, the Sixteenth Amendment, Theodore Roosevelt, Hiram Johnson).

# 11.3 Students analyze the role religion played in the founding of America, its lasting moral, social, and political impacts, and issues regarding religious liberty.

- 1. Describe the contributions of various religious groups to American civic principles and social reform movements (e.g., civil and human rights, individual responsibility and the work ethic, antimonarchy and self-rule, worker protection, family-centered communities).
- 2. Analyze the great religious revivals and the leaders involved in them, including the First Great Awakening, the Second Great Awakening, the Civil War revivals, the Social Gospel Movement, the rise of Christian liberal theology in the nineteenth century, the impact of the Second Vatican Council, and the rise of Christian fundamentalism in current times.
- 3. Cite incidences of religious intolerance in the United States (e.g., persecution of Mormons, anti-Catholic sentiment, anti-Semitism).
- 4. Discuss the expanding religious pluralism in the United States and California that resulted from large-scale immigration in the twentieth century.
- 5. Describe the principles of religious liberty found in the Establishment and Free Exercise clauses of the First Amendment, including the debate on the issue of separation of church and state.

# 11.4 Students trace the rise of the United States to its role as a world power in the twentieth century.

- 1. List the purpose and the effects of the Open Door policy.
- 2. Describe the Spanish-American War and U.S. expansion in the South Pacific.
- 3. Discuss America's role in the Panama Revolution and the building of the Panama Canal.
- 4. Explain Theodore Roosevelt's Big Stick diplomacy, William Taft's Dollar Diplomacy, and Woodrow Wilson's Moral Diplomacy, drawing on relevant speeches.
- 5. Analyze the political, economic, and social ramifications of World War I on the home front.
- 6. Trace the declining role of Great Britain and the expanding role of the United States in world affairs after World War II.

# 11.5 Students analyze the major political, social, economic, technological, and

- 1. Discuss the policies of Presidents Warren Harding, Calvin Coolidge, and Herbert Hoover.
- 2. Analyze the international and domestic events, interests, and philosophies that prompted attacks on civil liberties, including the Palmer Raids, Marcus Garvey's "back-to-Africa" movement, the Ku Klux Klan, and immigration quotas and the responses of organizations such as the American Civil Liberties Union, the National Association for the Advancement of Colored People, and the Anti-Defamation League to those attacks.
- 3. Examine the passage of the Eighteenth Amendment to the Constitution and the Volstead Act (Prohibition).
- 4. Analyze the passage of the Nineteenth Amendment and the changing role of women in society.
- 5. Describe the Harlem Renaissance and new trends in literature, music, and art, with special attention to the work of writers (e.g., Zora Neale Hurston, Langston Hughes).
- 6. Trace the growth and effects of radio and movies and their role in the worldwide diffusion of popular culture.
- 7.
- 8. Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

# 11.6 Students analyze the different explanations for the Great Depression and how the New Deal fundamentally changed the role of the federal government.

- 1. Describe the monetary issues of the late nineteenth and early twentieth centuries that gave rise to the establishment of the Federal Reserve and the weaknesses in key sectors of the economy in the late 1920s.
- 2. Understand the explanations of the principal causes of the Great Depression and the steps taken by the Federal Reserve, Congress, and Presidents Herbert Hoover and Franklin Delano Roosevelt to combat the economic crisis.
- 3. Discuss the human toll of the Depression, natural disasters, and unwise agricultural practices and their effects on the depopulation of rural regions and on political movements of the left and right, with particular attention to the Dust Bowl refugees and their social and economic impacts in California.
- 4. Analyze the effects of and the controversies arising from New Deal economic policies and the expanded role of the federal government in society and the economy since the 1930s (e.g., Works Progress Administration, Social Security, National Labor Relations Board, farm

programs, regional development policies, and energy development projects such as the Tennessee Valley Authority, California Central Valley Project, and Bonneville Dam).

5. Trace the advances and retreats of organized labor, from the creation of the American Federation of Labor and the Congress of Industrial Organizations to current issues of a postindustrial, multinational economy, including the United Farm Workers in California.

# 11.7 Students analyze America's participation in World War II.

1. Examine the origins of American involvement in the war, with an emphasis on the events that precipitated the attack on Pearl Harbor.

2. Explain U.S. and Allied wartime strategy, including the major battles of Midway, Normandy, Iwo Jima, Okinawa, and the Battle of the Bulge.

3. Identify the roles and sacrifices of individual American soldiers, as well as the unique contributions of the special fighting forces (e.g., the Tuskegee Airmen, the 442nd Regimental Combat team, the Navajo Code Talkers).

4. Analyze Roosevelt's foreign policy during World War II (e.g., Four Freedoms speech).

5. Discuss the constitutional issues and impact of events on the U.S. home front, including the internment of Japanese Americans (e.g., *Fred Korematsu* v. *United States of* 

*America*) and the restrictions on German and Italian resident aliens; the response of the administration to Hitler's atrocities against Jews and other groups; the roles of women in military production; and the roles and growing political demands of African Americans.

6. Describe major developments in aviation, weaponry, communication, and medicine and the war's impact on the location of American industry and use of resources.

- 7. Discuss the decision to drop atomic bombs and the consequences of the decision (Hiroshima and Nagasaki).
- 8. Analyze the effect of massive aid given to Western Europe under the Marshall Plan to rebuild itself after the war and the importance of a rebuilt Europe to the U.S. economy.

# 11.8 Students analyze the economic boom and social transformation of post World-War II America.

- 1. Trace the growth of service sector, white collar, and professional sector jobs in business and government.
- 2. Describe the significance of Mexican immigration and its relationship to the agricultural economy, especially in California.
- 3. Examine Truman's labor policy and congressional reaction to it.
- 4. Analyze new federal government spending on defense, welfare, interest on the national debt, and federal and state spending on education, including the California Master Plan.
- 5. Describe the increased powers of the presidency in response to the Great Depression, World War II, and the Cold War.
- 6. Discuss the diverse environmental regions of North America, their relationship to local economies, and the origins and prospects of environmental problems in those regions.
- 7. Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.
- 8. Discuss forms of popular culture, with emphasis on their origins and geographic diffusion (e.g., jazz and other forms of popular music, professional sports, architectural and artistic styles).

# 11.9 Students analyze U.S. foreign policy since World War II.

- 1. Discuss the establishment of the United Nations and International Declaration of Human Rights, International Monetary Fund, World Bank, and General Agreement on Tariffs and Trade (GATT) and their importance in shaping modern Europe and maintaining peace and international order.
- 2. Understand the role of military alliances, including NATO and SEATO, in deterring communist aggression and maintaining security during the Cold War.
- 3. Trace the origins and geopolitical consequences (foreign and domestic) of the Cold War and containment policy, including the following:
- The era of McCarthyism, instances of domestic Communism (e.g., Alger Hiss) and blacklisting
- The Truman Doctrine
- The Berlin Blockade
- The Korean War
- The Bay of Pigs invasion and the Cuban Missile Crisis
- Atomic testing in the American West, the "mutual assured destruction" doctrine, and disarmament policies
- The Vietnam War
- Latin American policy
- 4. List the effects of foreign policy on domestic policies and vice versa (e.g., protests during the war in Vietnam, the "nuclear freeze" movement).
- 5. Analyze the role of the Reagan administration and other factors in the victory of the West in the Cold War.
- 6. Describe U.S. Middle East policy and its strategic, political, and economic interests, including those related to the Gulf War.
- 7. Examine relations between the United States and Mexico in the twentieth century, including key economic, political, immigration, and environmental issues.

# 11.10 Students analyze the development of federal civil rights and voting rights.

- 1. Explain how demands of African Americans helped produce a stimulus for civil rights, including President Roosevelt's ban on racial discrimination in defense industries in 1941, and how African Americans' service in World War II produced a stimulus for President Truman's decision to end segregation in the armed forces in 1948.
- 2. Examine and analyze the key events, policies, and court cases in the evolution of civil rights, including *Dred Scott* v. *Sandford, Plessy* v. *Ferguson, Brown* v. *Board of Education, Regents of the University of California* v. *Bakke,* and California Proposition 209.
- 3. Describe the collaboration on legal strategy between African American and white women into the labor force and the changing family structure.
- 4. Explain the constitutional crisis originating from the Watergate scandal.
- 5. Trace the impact of, need for, and controversies associated with environmental conservation, expansion of the national park system, and the development of environmental protection laws, with particular attention to the interaction between environmental protection advocates and property rights advocates.
- 6. Analyze the persistence of poverty and how different analyses of this issue influence welfare reform, health insurance reform, and other social policies.

7. Explain how the federal, state, and local governments have responded to demographic and social changes such as population shifts to the suburbs, racial concentrations in the cities, Frostbelt-to-Sunbelt migration, international migration, decline of family farms, increases in out-of-wedlock births, and drug abuse.

# American Government (12<sup>th</sup> Grade)

Students in grade twelve pursue a deeper understanding of the institutions of American government. They will participate and learn through structured class simulations, college level class discussions, multimedia presentations (including the internet, documentary and feature films, broadcast news including television and radio, and a host of others), individual and group projects, formal research essays, and field trips to sites that reinforce or connect topics from class to the real world. They will begin the year reviewing the fundamental philosophies and origins of modern American political thought. They will study such great thinkers as Locke, Montesquieu, Machiavelli, and William Blackstone and their contributions to the developments of American government. Students will be able to explain how the US Constitution reflects a balance between protecting individual rights, separating powers in the governments, and granting citizens different ways to participate in political life.

Students will also analyze the roles, responsibilities, and leaders of the three branches of the federal, state, tribal, and local government, how leaders are selected and how they can be removed. Students will also spend time learning about and be able to summarize some landmark Supreme Court cases and how they affected individual rights in the U.S.

Throughout the year students will look at, read, and listen to a variety of media sources to understand the role and responsibility of a free press and their significance in elections, campaigns, and interest groups.

Finally, students will compare the U.S. system of government to different governmental bodies that exist in the world including communism, parliamentary democracy, dictatorships and the problems and successes associated with them.

### *Economics (12th grade)*

In addition to studying government in grade twelve, students will also master fundamental economic concepts (supply and demand, incentives, etc.) and terms and understand the concept, benefits and drawbacks of a free market economy. Students will learn how to use the tools (graphs, statistics, equations) from other subject areas to understanding of operations and institutions of economic systems (including real and nominal data) and analyze different economic behaviors and how they interact with the economy.

Student will also study in a historic context are the basic economic principles of micro and macroeconomics, international economics, comparative economic systems, measurement, and methods. They will analyze the U.S. labor market noting the current economy and labor statistics, differences in pay among professions and how the U.S. interacts with economies around the world.

### CA State Standards

# 12.1 Students explain the fundamental principles and moral values of American democracy as expressed in the U.S. Constitution and other essential documents of American democracy.

- 1. Analyze the influence of ancient Greek, Roman, English, and leading European political thinkers such as John Locke, Charles-Louis Montesquieu, Niccolò Machiavelli, and William Blackstone on the development of American government.
- 2. Discuss the character of American democracy and its promise and perils as articulated by Alexis de Tocqueville.

3. Explain how the U.S. Constitution reflects a balance between the classical republican concern with promotion of the public good and the classical liberal concern with protecting individual rights; and discuss how the basic premises of liberal constitutionalism and democracy are joined in the Declaration of Independence as "self - evident truths."

- 4. Explain how the Founding Fathers' realistic view of human nature led directly to the establishment of a constitutional system that limited the power of the governors and the governed as articulated in the *Federalist Papers*.
- 5. Describe the systems of separated and shared powers, the role of organized interests (*Federalist Paper Number 10*), checks and balances (*Federalist Paper Number 51*), the importance of an independent judiciary (*Federalist Paper Number 78*), enumerated powers, rule of law, federalism, and civilian control of the military.
- 6. Understand that the Bill of Rights limits the powers of the federal government and state governments.

# 12.2 Students evaluate and take and defend positions on the scope and limits of rights and obligations as democratic citizens, the relationships among them, and how they are secured.

- 1. Discuss the meaning and importance of each of the rights guaranteed under the Bill of Rights and how each is secured (e.g., freedom of religion, speech, press, assembly, petition, privacy).
- 2. Explain how economic rights are secured and their importance to the individual and to society (e.g., the right to acquire, use, transfer, and dispose of property; right to choose one's work; right to join or not join labor unions; copyright and patent).
- 3. Discuss the individual's legal obligations to obey the law, serve as a juror, and pay taxes.
- 4. Understand the obligations of civic-mindedness, including voting, being informed on civic issues, volunteering and performing public service, and serving in the military or alternative service.
- 5. Describe the reciprocity between rights and obligations; that is, why enjoyment of one's rights entails respect for the rights of others.
- 6. Explain how one becomes a citizen of the United States, including the process of naturalization (e.g., literacy, language, and other requirements).

# 12.3 Students evaluate and take and defend positions on what the fundamental values and principles of civil society are (i.e., the autonomous sphere of voluntary

# personal, social, and economic relations that are not part of government), their

# interdependence, and the meaning and importance of those values and principles

# for a free society.

- 1. Explain how civil society provides opportunities for individuals to associate for social, cultural, religious, economic, and political purposes.
- 2. Explain how civil society makes it possible for people, individually or in association with

others, to bring their influence to bear on government in ways other than voting and elections.

- 3. Discuss the historical role of religion and religious diversity.
- 4. Compare the relationship of government and civil society in constitutional democracies to the relationship of government and civil society in authoritarian and totalitarian regimes.

# 12.4 Students analyze the unique roles and responsibilities of the three branches of government as established by the U.S. Constitution.

- 1. Discuss Article I of the Constitution as it relates to the legislative branch, including eligibility for office and lengths of terms of representatives and senators; election to office; the roles of the House and Senate in impeachment proceedings; the role of the vice president; the enumerated legislative powers; and the process by which a bill becomes a law.
- 2. Explain the process through which the Constitution can be amended.
- 3. Identify their current representatives in the legislative branch of the national government.
- 4. Discuss Article II of the Constitution as it relates to the executive branch, including eligibility for office and length of term, election to and removal from office, the oath of office, and the enumerated executive powers.
- 5. Discuss Article III of the Constitution as it relates to judicial power, including the length of terms of judges and the jurisdiction of the Supreme Court.
- 6. Explain the processes of selection and confirmation of Supreme Court justices.

# 12.5 Students summarize landmark U.S. Supreme Court interpretations of the Constitution and its amendments.

- 1. Understand the changing interpretations of the Bill of Rights over time, including interpretations of the basic freedoms (religion, speech, press, petition, and assembly) articulated in the First Amendment and the due process and equal-protection-of-the-law clauses of the Fourteenth Amendment.
- 2. Analyze judicial activism and judicial restraint and the effects of each policy over the decades (e.g., the Warren and Rehnquist courts).
- 3. Evaluate the effects of the Court's interpretations of the Constitution in *Marbury* v. *Madison*, *McCulloch* v. *Maryland*, and *United States* v. *Nixon*, with emphasis on the arguments espoused by each side in these cases.
- 4. Explain the controversies that have resulted over changing interpretations of civil rights, including those in *Plessy* v. *Ferguson*, *Brown* v. *Board of Education*, *Miranda* v. *Arizona*, *Regents of the University of California* v. *Bakke*, *Adarand Constructors*, *Inc.* v. *Pena*, and *United States* v. *Virginia* (VMI).

# 12.6 Students evaluate issues regarding campaigns for national, state, and local elective offices.

- 1. Analyze the origin, development, and role of political parties, noting those occasional periods in which there was only one major party or were more than two major parties.
- 2. Discuss the history of the nomination process for presidential candidates and the increasing importance of primaries in general elections.
- 3. Evaluate the roles of polls, campaign advertising, and the controversies over campaign funding.

- 4. Describe the means that citizens use to participate in the political process (e.g., voting, campaigning, lobbying, filing a legal challenge, demonstrating, petitioning, picketing, running for political office).
- 5. Discuss the features of direct democracy in numerous states (e.g., the process of referendums, recall elections).
- 6. Analyze trends in voter turnout; the causes and effects of reapportionment and redistricting, with special attention to spatial districting and the rights of minorities; and the function of the Electoral College.

# 12.7 Students analyze and compare the powers and procedures of the national, state, tribal, and local governments.

- 1. Explain how conflicts between levels of government and branches of government are resolved.
- 2. Identify the major responsibilities and sources of revenue for state and local governments.
- 3. Discuss reserved powers and concurrent powers of state governments.
- 4. Discuss the Ninth and Tenth Amendments and interpretations of the extent of the federal government's power.
- 5. Explain how public policy is formed, including the setting of the public agenda and implementation of it through regulations and executive orders.
- 6. Compare the processes of lawmaking at each of the three levels of government, including the role of lobbying and the media.
- 7. Identify the organization and jurisdiction of federal, state, and local (e.g., California) courts and the interrelationships among them.
- 8. Understand the scope of presidential power and decision making through examination of case studies such as the Cuban Missile Crisis, passage of Great Society legislation, War Powers Act, Gulf War, and Bosnia.

# 12.8 Students evaluate and take and defend positions on the influence of the media on American political life.

- 1. Discuss the meaning and importance of a free and responsible press.
- 2. Describe the roles of broadcast, print, and electronic media, including the Internet, as means of communication in American politics.
- 3. Explain how public officials use the media to communicate with the citizenry and to shape public opinion.

# 12.9 Students analyze the origins, characteristics, and development of different political systems across time, with emphasis on the quest for political democracy, its advances, and its obstacles.

- 1. Explain how the different philosophies and structures of feudalism, mercantilism, socialism, fascism, communism, monarchies, parliamentary systems, and constitutional liberal democracies influence economic policies, social welfare policies, and human rights practices.
- 2. Compare the various ways in which power is distributed, shared, and limited in systems of shared powers and in parliamentary systems, including the influence and role of parliamentary leaders (e.g., William Gladstone, Margaret Thatcher).
- 3. Discuss the advantages and disadvantages of federal, confederal, and unitary systems of

government.

- 4. Describe for at least two countries the consequences of conditions that gave rise to tyrannies during certain periods (e.g., Italy, Japan, Haiti, Nigeria, Cambodia).
- 5. Identify the forms of illegitimate power that twentieth-century African, Asian, and Latin American dictators used to gain and hold office and the conditions and interests that supported them.
- 6. Identify the ideologies, causes, stages, and outcomes of major Mexican, Central American, and South American revolutions in the nineteenth and twentieth centuries
- 7. Describe the ideologies that give rise to Communism, methods of maintaining control, and the movements to overthrow such governments in Czechoslovakia, Hungary, and Poland, including the roles of individuals (e.g., Alexander Solzhenitsyn, Pope John Paul II, Lech Walesa, Vaclav Havel).
- 8. Identify the successes of relatively new democracies in Africa, Asia, and Latin America and the ideas, leaders, and general societal conditions that have launched and sustained, or failed to sustain, them.

12.10 Students formulate questions about and defend their analyses of tensions within our constitutional democracy and the importance of maintaining a balance between the following concepts: majority rule and individual rights; liberty and equality; state and national authority in a federal system; civil disobedience and the rule of law; freedom of the press and the right to a fair trial; the relationship of religion and government.

# **Principles of Economics**

# 12.1 Students understand common economic terms and concepts and economic reasoning.

- 1. Examine the causal relationship between scarcity and the need for choices.
- 2. Explain opportunity cost and marginal benefit and marginal cost.
- 3. Identify the difference between monetary and nonmonetary incentives and how changes in incentives cause changes in behavior.
- 4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.
- 5. Analyze the role of a market economy in establishing and preserving political and personal liberty (e.g., through the works of Adam Smith).

# 12.2 Students analyze the elements of America's market economy in a global setting.

- 1. Understand the relationship of the concept of incentives to the law of supply and the relationship of the concept of incentives and substitutes to the law of demand.
- 2. Discuss the effects of changes in supply and/or demand on the relative scarcity, price, and quantity of particular products.
- 3. Explain the roles of property rights, competition, and profit in a market economy.
- 4. Explain how prices reflect the relative scarcity of goods and services and perform the allocative function in a market economy.
- 5. Understand the process by which competition among buyers and sellers determines a market price.
- 6. Describe the effect of price controls on buyers and sellers.
- 7. Analyze how domestic and international competition in a market economy affects goods and

services produced and the quality, quantity, and price of those products.

- 8. Explain the role of profit as the incentive to entrepreneurs in a market economy.
- 9. Describe the functions of the financial markets.
- 10. Discuss the economic principles that guide the location of agricultural production and industry and the spatial distribution of transportation and retail facilities.

### 12.3 Students analyze the influence of the federal government on the American

### economy.

- 1. Understand how the role of government in a market economy often includes providing for national defense, addressing environmental concerns, defining and enforcing property rights, attempting to make markets more competitive, and protecting consumers' rights.
- 2. Identify the factors that may cause the costs of government actions to outweigh the benefits.
- 3. Describe the aims of government fiscal policies (taxation, borrowing, spending) and their influence on production, employment, and price levels.
- 4. Understand the aims and tools of monetary policy and their influence on economic activity (e.g., the Federal Reserve).

### 12.4 Students analyze the elements of the U.S. labor market in a global setting.

- 1. Understand the operations of the labor market, including the circumstances surrounding the establishment of principal American labor unions, procedures that unions use to gain benefits for their members, the effects of unionization, the minimum wage, and unemployment insurance.
- 2. Describe the current economy and labor market, including the types of goods and services produced, the types of skills workers need, the effects of rapid technological change, and the impact of international competition.
- 3. Discuss wage differences among jobs and professions, using the laws of demand and supply and the concept of productivity.
- 4. Explain the effects of international mobility of capital and labor on the U.S. economy.

### 12.5 Students analyze the aggregate economic behavior of the U.S. economy.

- 1. Distinguish between nominal and real data.
- 2. Define, calculate, and explain the significance of an unemployment rate, the number of new jobs created monthly, an inflation or deflation rate, and a rate of economic growth.
- 3. Distinguish between short-term and long-term interest rates and explain their relative significance.

# 12.6 Students analyze issues of international trade and explain how the US economy affects and is affected by economic forces beyond the United States;s borders.

- 1. Identify the gains in consumption and production efficiency from trade, with emphasis on the main products and changing geographic patterns of twentieth-century trade among countries in the Western Hemisphere.
- 2. Compare the reasons for and the effects of trade restrictions during the Great Depression compared with present-day arguments among labor, business, and political leaders over the effects of free trade on the economic and social interests of various groups of Americans.
- 3. Understand the changing role of international political borders and territorial sovereignty in a global economy.
- 4. Explain foreign exchange, the manner in which exchange rates are determined, and the effects

of the dollar's gaining (or losing) value relative to other currencies.

A taste of Elective courses at New West Charter High School

# Journalism

Students will generate a monthly newsletter or newspaper available in print and/or online. Journalism students have a responsibility to the school community to act in an ethical manner; this involves following a code of conduct. Journalism students will seek truth and report it, act independently while working cooperatively, and be accountable. The following are the big ideas journalism students will focus on: integrity, ethics, responsibility, value systems, storytelling, and truth. Students will learn and carryout the idea that it is necessary for one to practice ethical behavior. Students will analyze and evaluate the essential features of journalistic writing in a variety of news sources for: brevity and clarity, content, topics or themes appropriate for the audience, credible and multiple information sources, effective use of language, rhetorical strategies (language that focuses a message, such as persuasive words, logical consistency, humor, satire, or other intent signals), and structural elements and organization. Students will discuss ideas for writing with others. They will write coherent and focused stories that demonstrate well-researched information, appropriate journalistic structure and style, and a tightly reasoned flow of ideas. Students will progress through stages of journalistic writing processes. Students will be responsible for writing news stories, feature stories and columns, indepth issue features, reviews, editorials, or opinions and commentaries effectively and accurately in print and media. Students will demonstrate an understanding of the research, organizational, and drafting strategies in journalistic writing processes. Students' writing will demonstrate a command of Standard English and the use of media formats that follow specific style guidelines for consistency.

# Psychology

By the end of this class, students will have a solid foundation on the inner working of the human mind and the human experience. Students will begin to question why they are the way there are looking at specific brain and developmental functions. New West Charter Middle School will abide by and follow as closely as possible the American Psychological Associated National Standards for High Schools. Students will participate and learn through structured class simulations, college level class discussions, multimedia presentations (including the internet, documentary and feature films) professional and medical journals, individual and group projects, and conduct their own formal research and write reports.

Students will examine the Contemporary perspectives used by psychologists to understand behavior and mental processes. They will learn a variety of research strategies used by psychologists to explore behavior and mental processes and will propose their own research learning the purpose and basic concepts of statistics substantiate their claims.

Students will explore the capabilities of the brain focusing on the structure and function of the neuron and the organization and structure of the nervous system and endocrine system. They will analyze how heredity interacts with the environment to influence behavior and how psychological mechanisms are influenced by evolution. Students will begin to understand how they developed looking at different theories of development (nature/nurture, continuity, discontinuity, stability/instability, and critical periods in one's life).

Students will examine a number of case studies on the nature and characteristics of learning and the different principles of conditioning (classical, operant) and components of cognitive learning (including the roles biology and culture play in determining the learning process). Students will

also spend time exploring characteristics and origins and categories of abnormal behavior and the methods used in exploring abnormal behavior and the impacts mental disorders has on the human and society.

# World Religions

Students will participate and learn through structured class simulations, college level class discussions, multimedia presentations (including the internet, documentary and feature films, broadcast and radio news), and individual and group projects. In this class, students will build upon their different historical studies since middle school to study and examine in depth Hinduism, Judaism, Christianity, Islam, and Buddhism focusing on their beliefs, customs, practices, and settlements in the modern era.

Students will begin to explore many of the "hot spots" and problems associated with religion with a focus on the Middle East's conflict between Arab Muslim and the western world (looking at the current wars and the recent uprising in Muslim countries. Students will also learn about the problems, past failures, and violence used to solve the Palestinian and Jewish state question, the rise of jihadist extremists in the modern world with a focus on modern terrorism in the name of religion and the problems found in different Hindu societies such as the status and treatment of women, child marriages and the dowry system, crushing poverty, and the practice polygamy in the modern world.

# AVID (Advancement Via Individual Determination)

AVID is an academic elective class (grades 9-12) that is part of the regular school day. The AVID mission is to close the achievement gap by preparing all students for college readiness and success in a global society. All students are enrolled in rigorous college prep curriculum (A-G courses). A framework of support structures are in place that enables students to become competitive in the college application process. Students participate in classroom tutorials with AVID trained tutors. The AVID course curriculum is based on Writing, Inquiry, Collaboration and Reading (WICR). AVID student selection criteria includes one or more of the following: Students with GPA's between 2.0 and 3.5 the year before they are selected for an AVID program; Students who sustain scores average and above; Students who may be the first in their family to go to college; Students who qualify for free/reduced lunch; Students who are traditionally underserved in four-year colleges.

For one period a day, students learn organizational and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable. Students' self-images improve, and they become academically successful leaders and role models for other students.

**COURSE OBJECTIVE:** The AVID program is aimed at directing students to a college-bound path. This will be done by holding tutorials (weekly tutoring), teaching organizational skills, and developing the learning process with critical thinking skills. Students will be visiting colleges, and doing community service and team building exercises to help students set future goals that they can achieve.

**TUTORIALS:** Once or twice a week the students will be expected to bring specific questions from their other classes and work together in groups to solve them. Ideally, there will also be two or three tutors in addition to the instructor to guide them though the process. Tutors will not be handing out answers, but helping the students find the answers themselves.

**LEARNING LOGS:** Weekly learning logs are used for students to write key information learned from each core class, in addition to any clarifying questions they may have.

**ORGANIZATIONAL SKILLS:** Student will be expected to keep a 3 three-ring binder with all the notes and materials from their other classes. They will be taught how to organize the binder and it will be checked periodically. Within the binder they will also be taking Cornell Style notes, which will organize their review material and their learning.

**CRITICAL THINKING SKILLS:** Regularly, students will be engaged in activities designed to develop the learning process. These activities include writing assignments, Socratic Seminars, group problem solving and in class projects. Students will also be doing goal setting and a plan of how to achieve their goals which will include preparing for ACT's and college scholarship applications.

**SERVICE LEARNING**: Each student will be required to complete five hours of community service per quarter. These hours will be logged and signed off by a parent or guardian.

**STUDENT CONTRACT:** Is it also required that each student and parent sign a contract committing to the AVID program. Students that do not maintain the terms of the contract will be placed on probation in the AVID program and parents will be contacted to schedule a conference.

# **AVID Performance Standards:**

Based on the AVID Performance Standards students will 1) develop strategies to identify and fulfill personal and academic goals. 2) Students will develop strategies to ensure academic success in core studies required for entrance to four-year colleges and universities. 3) Students will develop proficiency in "Writing to Learn" across the curriculum. 4) Students will develop college awareness within a schoolwide college-going culture so they have the opportunity to be ready for the application process for a 4 year college or university. 5) Students will be proficient in using "The Writing Process" in core classes in order to write clear, coherent, and focused essays that exhibit awareness of audience and purpose and contain formal introductions, bodies of supporting evidence and conclusions. 6) Students will develop cross-curricular reading skills through using their knowledge of word origins and word relationships as well as historical and literary context clues to determine the meaning of specialized vocabulary. 7) Students are able to evaluate the content of oral communications and deliver focused, coherent presentations that convey a clear interpretation of ideas and unity in relation to purpose and audience. 8) Students become proficient in the mathematical skills and concepts that prepare them for the rigorous courses required for admission to four-year colleges and universities.

# Environmental Science

Environmental Science integrates many fields of social and scientific study. Students will build on their understanding of chemistry, physics, biology, political science, geography, and earth science in order to examine the natural and human-made issues that face citizens of the world today and in the future. Students will learn about historical turning points in environmental policy, actions to be taken to reduce negative human impacts on the environment locally and globally, decisions that await developing nations, and traditional and renewable energy resources and consumption.

Students taking this course will perform a wide variety of field research, design and conduct laboratory experiments, complete individual and group research projects, discuss current, historical and future environmental issues, and communicate their opinions, research and data.

# Health

It is essential that young people leave high school with a concrete understanding of the healthrelated choices that await them and the importance of establishing healthy habits early in their adult lives. Students taking this course will learn how to establish good diet and nutrition practices, including moderation, reading food labels, and understanding nutritional contents of various foods. They will examine the benefits to good nutritional practices and the possible consequences of poor eating habits. Students will learn about conception, stages of pregnancy, and responsibilities of raising children, as well as contraceptive methods and use in preventing pregnancy and reducing risks of certain sexually transmitted infections. They will learn about and discuss ways to lead a safe life during high school and minimize injury risk, including analyzing behaviors and influences that may increase risk of injury or illness. Students will understand the impacts, legal issues, and risks of drug and alcohol use and describe how to practice health-enhancing behaviors. Finally, by the end of this course, students will be able to demonstrate proper first aid and CPR procedures.

Throughout this course, factual information will be presented using a variety of methods including instructional videos, discussions, lecture, individual and group research, and possibly guest speakers. A special emphasis will be placed on discussing the positive consequences of healthier choices and the impact and prevalence of more risky behaviors.

# Engineering AB

This elective course will introduce the engineering profession, professional concepts, ethics, and responsibility. Reviews hand calculators, number systems, and unit conversions. It will also introduce the personal computer and operating systems. Students will learn engineering problem-solving techniques using computer software and for those students who comprehend engineering at a higher level will have the opportunity to utilize computer programming and algorithms in a higher-level computer language.

### Photography AB

Students will learn about technical skills for film photography, including refinement of exposure, development and printing of black-and-white images. Criteria for selection of appropriate equipment and materials are also covered.

An exploration of the fundamental principles, techniques and application of camera-based image making will also be planned for the course as well as exploring the techniques and applications for developing and projection printing of film camera images in a chemical darkroom. The course may move into exploring the techniques and applications of acquiring, manipulating and outputting digitized photographic images utilizing Adobe Photoshop since society has moved into the digital world.

# Creative Writing

This workshop is designed for those who write - whether it's poetry, fiction, creative non-fiction or memoir and would like a creative jolt - a burst of outside influence that will spark to life - or bring to the surface - what's been lying dormant inside. Using exercises to access participant's life experiences - will concentrate on such areas as point of view, character, tone and irony, strategies of plot and movement. Daily class discussions and in-class writing exercises will stimulate the imagaination - helping the student hone and polish his/her descriptive and dialogue writing skills. The student will draw from the beautiful environment he/she is in - examining the cultural, social and gender differences - then compare what he/she sees with his/her own experiences. It is exactly this kind of observation that translates into good descriptions of place and character. The course will also demonstrate examples of techniques used effectively by successful wirters, discuss what makes a good story, how to revise and what to do when you get stuck. The focus of

this workshop, however, will be on structure -- how to create a unity from the various elements of fiction and how to utilize effective storytelling techniques. Class time will be spent discussing participant's stories as well as a step by step approach to creating new work.