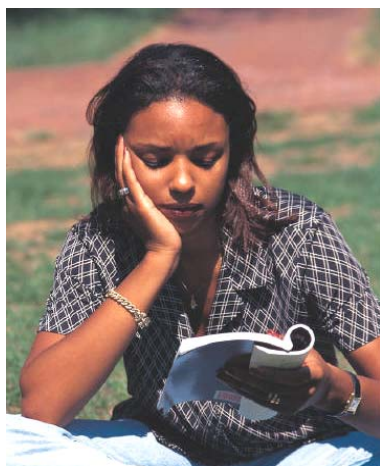
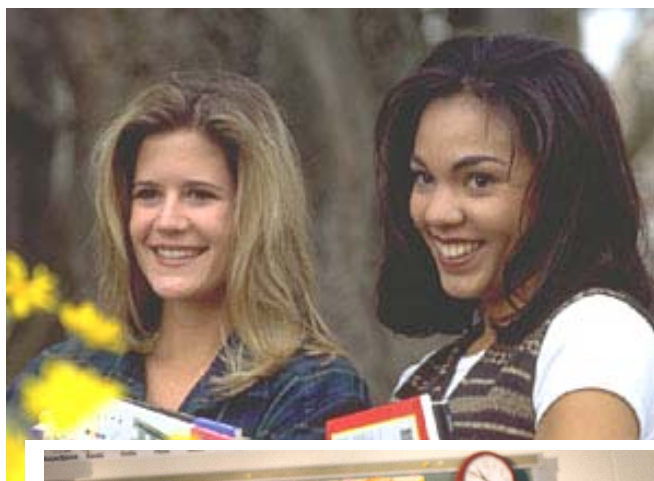


Marin County Office of Education Course of Study



MARY JANE BURKE
Marin County Superintendent of Schools



August 2006

Introduction

The Marin County Office of Education Course of Study is intended to be used as a planning reference for educators engaged in curriculum development and implementation. This document serves as a report to the Marin County Board of Education as well as a guidebook for administrators and teachers. The documents used in the development of this Course of Study include: K-12 California State Content Standards, content Frameworks for California Public Schools, the Kern County Office of Education Alternative Education Course of Study and the contributions of teachers, administrators and other Marin County Office of Education (MCOE) staff.

The Course of Study is intended to be a living document that will be revised and updated as more standards-based textbooks are incorporated into the curriculum and as more courses are added.

We wish to thank Dr. Ken P. Taylor, Division Administrator, Student Services, and the Kern County Office of Education for sharing information and providing guidance as we embarked upon this project.

We also wish to express sincere thanks to the following Marin County Office of Education Course of Study writing team and support staff for their excellent efforts.

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The Marin County Office of Education Course of Study represents a standards-based approach to curriculum development and delivery. It is important to recognize that the MCOE curriculum must address the special and unique characteristics of the students we serve. Most of our students have special education needs. Many of our Alternative Education students have varying enrollment patterns entering and exiting programs throughout the school year.

To address these needs, all MCOE courses are designated as open entry/open exit with variable credit for high school students. This means that a student may enter a class after the beginning of a quarter or semester and earn partial credit based on the length and quality of their participation in classes. If a student leaves a program before the end of a quarter or semester, they retain the credits earned during their enrollment in the MCOE program.

We also offer a layered curriculum to address content standards at different ability levels. Many courses are offered at both basic and college preparatory levels.

Course titles are listed at the top of each page. Course titles followed by an A indicate first semester. Those followed by a B indicate second semester. Regardless of the time of enrollment, if a student has already received five credits in a course, that student will be placed in the B semester. If a student enrolls late in the year but has never completed any credits in a course requirement, the student will begin in the “A” course. The designation “College Prep” indicates advanced work for grades 9-12.

Courses generally have more than one textbook option that will fulfill the course content standards. The textbooks and resources listed are suggestions. The complete Board-approved list of Instructional Materials is included in Appendix A.

Please note that credit value refers to the range of credit a student may earn in a course. Credits are awarded based on a formula in which completion of twelve productive class hours generates one high school credit. For independent study, students earn credits upon successful completion of assigned work.

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**Appendix A – Marin County Office of Education Instructional Materials -
Grades 9-12, Recommended Materials**

Course Title: GRADE SEVEN ENGLISH – LANGUAGE ARTS

Grade level: 7

Text and Resources:

Write Source 2000; Houghton Mifflin

Snapshots, Literature for Young Adults; Perfection Learning

Vocabulary Workshop, Introductory Course; Holt Rinehart and Winston

Grade-level appropriate literature and individualized developmental materials

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature, and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Vocabulary and Concept Development:** Clarify word meaning through the use of definition, example, restatement, or contrast (7-1.3); and identify idioms, analogies, metaphors and similes in prose and poetry (7-1.1).
3. **Reading Comprehension:** Locate information using a variety of documents (7-2.2); and analyze text that uses cause/effect patterns (7-2.3).
4. **Literary Response and Analysis:** Identify events that advance the plot and determine how each event explains past or present actions (7-3.2); articulate the expressed purposes and characteristics of different forms of prose (7-3.1); and identify and analyze recurring themes across works (7-3.4).
5. **Writing Strategies:** Support all statements and claims with anecdotes, descriptions, facts and statistics and/or specific examples (7-1.2); use strategies of note-taking, outlining and summarizing to structure composition drafts (7-1.3); give credit for both quoted and paraphrased information in a bibliography (7-1.5); and create documents using word-processing skills (7-1.6).
6. **Writing Applications:** Write fictional or autobiographical narratives (7-2.1); write summaries of reading materials that contain the main ideas, which are written in the student's own words and reflect the underlying meaning of the source (7-2.5); write responses to literature (7-2.2); and write research reports (7-2.3).
7. **Written and Oral English Language Conventions:** Place modifiers properly, using active voice (7-1.1); identify and use infinitives, participles and clear pronoun/antecedent references (7-1.2); use

correct capitalization (7-1.5); identify and use hyphen dash, brackets and semi-colon between two clauses of a compound sentence (7-1.4); and spell derivative correctly (7-1.6).

8. **Listening and Speaking Strategies:** Ask probing questions designed to elicit information (7-1.1); determine the speaker's attitude toward the subject (7-1.2); use explicit techniques for effective presentations (7-1.6); and provide constructive feedback to speakers concerning the coherence and logic of a speech's content and delivery (7-1.7).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: GRADE EIGHT ENGLISH – LANGUAGE ARTS

Grade level: 8

Text and Resources:

Write Source 2000; Houghton Mifflin
Multicultural Reader, Collection One; Perfection Learning
Vocabulary Workshop, Second Course; Holt, Rinehart and Winston

Grade-level appropriate literature and individualized developmental materials

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature, and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

- Vocabulary and Concept Development:** Use idioms, analogies, metaphors and similes to infer the literal and figurative meanings of phrases (8-1.1); and use word meanings within the appropriate context and be able to verify those meanings (8-1.3).
- Reading Comprehension:** Analyze text that uses proposition-and-support patterns (8-2.2); and use information from a variety of consumer, workplace and public documents to explain a situation or decision and/or to solve a problem (8-2.6).
- Literary Response and Analysis:** Analyze relevance of setting to the mood, tone and meaning of text (8-3.4); evaluate the structural elements of the plot (8-3.2); and analyze how a work of literature reflects the heritage, traditions, attitudes and beliefs of its author (8-3.7).
- Writing Strategies:** Create compositions that establish a controlling impression, have a coherent thesis and/or make a clear and well-supported conclusion (8-1.1); establish coherence within and among paragraphs through effective transitions, parallel structures and similar writing techniques (8-1.2); and revise writing for word choice, organization and consistent point of view (8-1.6).
- Writing Applications:** Write biographies, autobiographies, short stories and/or narratives (8-2.1); write responses to literature (8-2.2); write research reports (8-2.3); and write persuasive compositions (8-2.4).
- Written and Oral English Language Conventions:** Use correct punctuation and capitalization (8-1.5); use correct and varied sentence types and sentence openings (8-1.1); and edit written manuscripts to reflect proper grammar (8-1.4).

8. **Listening and Speaking Strategies:** Prepare a speech outline based upon a chosen pattern of organization that generally includes an introduction, transitions, previews and effective conclusion (8-1.4); and deliver oral responses to literature that interpret reading and provide insight (8-2.2).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: ENGLISH – LANGUAGE ARTS I

Grade level: 9

Text and Resources*:

Write Source 2000; Houghton Mifflin
Multicultural Reader, Collection Two; Perfection Learning
Vocabulary Workshop, Third Course; Holt, Rinehart and Winston

Grade-level appropriate literature and individualized developmental materials

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10 credits

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature, and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Decoding and Word Recognition:** Recognize and use knowledge of spelling patterns when reading (2-1.1); decode regular multi-syllable words (3-1.2); and read narrative and expository text aloud with fluency, accuracy, with appropriate pacing, intonation and expression (2-1.6).
2. **Vocabulary and Concept Development:** Understand and explain common antonyms and synonyms (2-1.7); use a dictionary to learn the meaning and other features of unknown words (3-1.7); and use knowledge of prefixes/suffixes to determine meaning of words (3-1.8).
3. **Reading Comprehension:** Use titles, table of contents and chapter headings to locate information in expository text (2-2.1); restate facts and details in text to clarify and organize ideas (2-2.5); demonstrate comprehension by identifying answers in text (3-2.3); find the main idea and supporting details in text (3-2.5).
4. **Literary Response and Analysis:** Generate alternative endings to plots, and identify reasons for, and impact of, the alternatives (2-3.2); distinguish among common forms of literature (3-3.1); determine what characters are like by what they say/do and by how the author portrays them (3-3.3); and determine the underlying theme or author's message in fiction and non-fiction text (3-3.4).
5. **Writing Strategies:** Create a single paragraph that develops a topic sentence and includes simple supporting facts and details (3-1.1); and revise original drafts to improve sequence and provide more descriptive detail (2-1.4).

6. **Writing Applications:** Write narratives that provide a context in which action takes place, include detail to develop the plot and provide insight as to why this incident is memorable (3-2.1); and write personal and formal letters, thank you notes and invitations that consider the audience, purpose and context including the date, proper salutation, body, closing and signature (3-2.3).
 7. **Written and Oral English-Language Conventions:** Distinguish between complete and incomplete sentences and recognize and use correct word order in written sentences (2-1.1); identify and use various parts of speech (2-1.2); use quotation marks correctly (2-1.4); follow capitalization rules (2-1.5, 3-1.7); identify and use subject/verb agreements (3-1.2); arrange words in alphabetical order (3-1.9); and spell frequently used, irregular words correctly (2-1.6).
 8. **Listening and Speaking:** Retell, paraphrase and explain what a speaker has said (3-1.1); and retell stories, including characters, setting and plot (2-1.8).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: ENGLISH – LANGUAGE ARTS II

Grade level: 10

Text and Resources:*

Writers Inc.; Houghton Mifflin
Prentice Hall Literature, The American Tradition; Prentice Hall
Vocabulary Workshop, Fourth Course; Holt, Rinehart and Winston

Grade-level appropriate literature and individualized developmental materials

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10 credits

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Word Recognition:** Read narrative and expository text aloud with fluency and accuracy and with appropriate pacing, intonation and expression (4-1.1).
2. **Vocabulary and Concept Development:** Use knowledge of root words to determine the meaning of unknown words within a passage (4-1.3); use a thesaurus to determine related words and concepts (4-1.5); understand and explain frequently used synonyms, antonyms and homographs (5-1.3); and understand and explain the figurative and metaphorical use of words in context (5-1.5).
3. **Reading Comprehension:** Distinguish between cause and effect and fact and opinion in expository text (4-2.6); analyze text that is organized in sequential or chronological order (5-2.2); discern main ideas and concepts presented in texts, identifying and assessing evidence that supports those ideas (5-2.3); and draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge (5-2.4).
4. **Literary Response and Analysis:** Identify the main events of the plot, their causes and how each influences future action (4-3.2); identify and define the presence of figurative language in literary works (4-3.5); and identify the main problem or conflict of the plot and how it is resolved (5-3.2).
5. **Writing Strategies:** Create a multiple paragraph composition that provides an introductory paragraph that includes a topic sentence, supporting paragraphs with simple facts and details, concludes with a paragraph that summarizes the points and is indented properly (4-1.2); create a multiple-paragraph

narrative composition (5-1.1); create simple documents using electronic media (5-1.4); and edit and revise manuscripts (5-1.6).

6. **Writing Applications:** Write responses to literature that demonstrate an understanding of the literary work, support judgments through reference both to the text and prior knowledge (4-2.2); and write persuasive letters or compositions (5-2.4).
 7. **Written and Oral English Language Conventions:** Use underlining, quotations, or italics to identify titles (4-1.5); correctly use capitalization rules (4-1.6); and identify and correctly use verbs that are often misused (5-1.2).
 8. **Listening and Speaking Strategies:** Give precise directions and instructions (4-1.4); clarify and support spoken ideas with evidence and examples (5-1.5); and analyze media as sources for information, entertainment, deliver oral responses to literature that summarize significant events, provide clear images and use examples as evidence (5-2.3).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: ENGLISH – LANGUAGE ARTS III

Grade level: 11

Text and Resources:*

Writers Inc.; Houghton Mifflin
Prentice Hall Literature, The British Tradition; Prentice Hall
Vocabulary Workshop, Fifth Course; Holt, Rinehart and Winston

Grade-level appropriate literature and individualized developmental materials

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10 credits

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature, and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Word Recognition:** Read narrative and expository text aloud with fluency, and with appropriate pacing, intonation and expression (6-1.1).
2. **Vocabulary and Concept Development:** Distinguish and interpret figurative language and multiple-meaning words (6-1.2); and clarify word meaning through the use of definition, example, restatement, or contrast (7-1.3).
3. **Reading Comprehension:** Clarify understanding of texts by creating outlines, logical notes, summaries, or reports (6-2.4); determine the adequacy and appropriateness of an author's evidence for his/her conclusions (6-2.6); locate information using a variety of documents (7-2.2); and analyze text that uses cause/effect patterns (7-2.3).
4. **Literary Response and Analysis:** Analyze how the qualities of the character affect the plot and resolution of the conflict (6-3.2); identify the speaker and recognize the difference between first and third person narration (6-3.5); and analyze relevance of setting to the mood, tone and meaning of text (8-3.4).
5. **Writing Strategies:** Choose the form of writing that best suits the intended purpose (6-1.1); create a multiple-paragraph expository composition (6-1.2); compose documents with appropriate formatting by using word processing skills (6-1.5); and establish coherence within and among paragraphs through effective transitions, parallel structures and similar writing techniques (8-1.2).

6. **Writing Applications:** Write narratives that establish and develop plot and setting, include sensory details and concrete language and use a range of narrative strategies (6-2.1); write responses to literature (6-2.4); write fictional or autobiographical narratives (7-2.1); write summaries of reading materials that contain the main ideas, are written in the student's own words and reflect the underlying meaning of the source (7-2.5); and write documents related to career development (8-2.5).
 7. **Written and Oral English Language Conventions:** Place modifiers properly using active voice (7-1.1); use correct punctuation and capitalization (8-1.5); and use correct and varied sentence types and sentence openings (8-1.1).
 8. **Listening and Speaking Strategies:** Identify persuasive and propaganda techniques used in television, and identify false and misleading information (6-1.9); and deliver oral responses to literature that interpret reading and provide insight (8-2.2).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: ENGLISH – LANGUAGE ARTS IV

Grade level: 12

Text and Resources*:

Writers Inc.; Houghton Mifflin

Macbeth, A Parallel Text; Perfection Learning

Romeo and Juliet, A Parallel Text; Perfection Learning

Reading the World, Contemporary Literature; Perfection Learning

Vocabulary Workshop, Complete Course; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10 credits

This literature-based curriculum will integrate written and oral language skills, reading comprehension and literary analysis using various literary genres. Writing and grammar assignments will be based on the individual needs of the students as determined by the teacher.

The purpose of this course is to broaden and enrich student exposure and appreciation of English literature and assist student mastery of the foundational skills and standards that are required to pass the English-Language Arts portion of the California High School Exit Examination.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Word Recognition:** Read narrative and expository text aloud with fluency and accuracy with appropriate pacing, intonation and expression (6-1.1).
2. **Vocabulary and Concept Development:** Distinguish and interpret figurative language and multiple-meaning words (6-1.2); and clarify word meaning through the use of definition, example, restatement or contrast (7-1.3).
3. **Reading Comprehension:** Clarify understanding of texts by creating outlines, logical notes, summaries or reports (6-2.4); determine the adequacy and appropriateness of an author's evidence for his/her conclusions (6-2.6); locate information using a variety of documents (7-2.2); and analyze text that uses cause/effect patterns (7-2.3).
4. **Literary Response and Analysis:** Analyze how the qualities of the character affect the plot and resolution of the conflict (6-3.2); identify the speaker and recognize the difference between first and third person narration (6-3.5); and analyze relevance of setting to the mood, tone and meaning of text (8-3.4).
5. **Writing Strategies:** Choose the form of writing that best suits the intended purpose (6-1.1); create a multiple-paragraph expository composition (6-1.2); compose documents with appropriate formatting by using word processing skills (6-1.5); and establish coherence within and among paragraphs through effective transitions, parallel structures and similar writing techniques (8-1.2).

6. **Writing Applications:** Write narratives that establish and develop plot and setting, include sensory details and concrete language and use a range of narrative strategies (6-2.1); write responses to literature (6-2.4); write fictional or autobiographical narratives (7-2.1); write summaries of reading materials that contain the main ideas, are written in the student's own words and reflect the underlying meaning of the source (7-2.5); and write documents related to career development (8-2.5).
 7. **Written and Oral English Language Conventions:** Place modifiers properly, using active voice (7-1.1); use correct punctuation and capitalization (8-1.5); and use correct and varied sentence types and sentence openings (8-1.1).
 8. **Listening and Speaking Strategies:** Identify persuasive and propaganda techniques used in television, and identify false and misleading information (6-1.9); and deliver oral responses to literature that interpret reading and provide insight (8-2.2).
-

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: MIDDLE SCHOOL VISUAL ARTS

Grade level: 7-8

Text and Resources:

Understanding Art; Glencoe McGraw-Hill

Art materials and supplies

Course Description

Course Duration: *One Year

Credit Value: N/A

This course will focus on the Visual Arts strand of the California State Content Standards and will include at least one concept from each of the five components of the Visual Arts strand.

Throughout this course students, based upon grade-level appropriateness, will:

- process sensory information unique to the arts;
- produce works of visual arts;
- understand and appreciate the visual arts; and
- analyze and make judgments in the visual arts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Artistic Perception:** Students use artistic terms when describing the intent and content of works of art (8-1.1); analyze and justify how their artistic choices contribute to the expressive quality of their own works of art (8-1.2); and identify and describe the ways in which artists convey the illusion of space, (7-1.3).
 2. **Create Expressions:** Students develop increasing skill in the use of at least three media (7-2.1); and develop skill in mixing paints and showing color relationships (7-2.4).
 3. **Historical and Cultural Context:** Students compare and contrast works of art from various periods, styles, and cultures and explain how those works reflect the society in which they were made (7-3.2); and describe how art reflects cultural values in various traditions throughout the world (7-3.1).
 4. **Aesthetic Value:** Students analyze the form and content of works of art (7-4.1); construct an interpretation of a work of art based on the form and the content of the work (8-4.3); and apply specific and appropriate criteria to assess and critique works of art (7-4.4).
 5. **Connections, Relationships, Applications:** Students create paintings that express personal opinions about current social or political issues (8-5.2); and identify professions in or related to the visual arts and some of the specific skills needed for those professions (7-5.4).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
-

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. Writing activities must meet the proficient level of assigned writing rubrics.
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Course Title: VISUAL ARTS IA

Grade level: 7-12

Text and Resources*:

Draw 50 Dogs; Random House Publishing
Draw 50 Cats; Random House Publishing
Draw Endangered Species; Random House Publishing
Draw 50 Animals; Random House Publishing
The Natural Way to Draw; Houghton Mifflin

Arts and crafts supplies

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course will focus on the Visual Arts strand of the California State Content Standards and will include at least one concept from each of the five components of the Visual Arts strand. Throughout this course students, based upon grade-level appropriateness, will:

- process sensory information unique to the arts;
- produce works of visual arts;
- understand and appreciate the visual arts; and
- analyze and make judgments in the visual arts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Artistic Perception:** Students describe and replicate repeated patterns in nature, in the environment, and in works of art (1-1.1); and identify the elements of art in objects in nature, the environment, and works of art (2-2.3).
 2. **Create Expressions:** Students create artwork based on observations of actual objects (1-2.8); and demonstrate beginning skill in the use of art media (1-2.3).
 3. **Historical and Cultural Context:** Students identify and discuss how art is used in events and celebrations in various cultures (2-3.3).
 4. **Aesthetic Value:** Students identify and describe various reasons for making art (1-4.2); and compare different responses to the same work of art (2-4.2).
 5. **Connections, Relationships, Applications:** Students describe objects designed by artists that are used at home and at school (1-5.4).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: VISUAL ARTS II

Grade level: 7-12

Text and Resources*:

Introducing Art, Part I; Glencoe McGraw-Hill

Composition: A Series of Exercises in Art Structure; University of California Press

Arts materials and supplies

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on the Visual Arts strand of the California State Content Standards and will include at least one concept from each of the five components of the Visual Arts strand.

Throughout this course students, based upon grade-level appropriateness, will:

- process sensory information unique to the arts;
- produce works of visual arts;
- understand and appreciate the visual arts; and
- analyze and make judgments in the visual arts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Artistic Perception:** Students identify pairs of complementary colors (4-1.3); describe and analyze the elements of art (4-1.5); and identify and describe characteristics of representational, abstract, and nonrepresentational works of art (5-1.2).
 2. **Create Expressions:** Students use shading to transform a two-dimensional shape into what appears to be a three-dimensional form (5-2.1); use one-point perspective to create the illusion of space (5-2.11); use perspective in an original work of art to create a real or imaginary scene (5-2.6); create a drawing using varying lines, shades, and intensities (6-2.3); and use technology to create original works of art (6-2.6).
 3. **Historical and Cultural Context:** Students describe how art plays a role in reflecting life (4-3.1).
 4. **Aesthetic Value:** Students assess their own works of art, using specific criteria, and describe what changes they would make for improvement (5-4.4).
 5. **Connections, Relationships, Applications:** Students construct diagrams, maps, graphs, timelines, and illustrations to communicate ideas or tell a story about a historical event (5-5.3); and use linear perspective to depict geometric objects in space (5-5.1).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: VISUAL ARTS III

Grade level: 7-12

Text and Resources*:

Understanding Art; Glencoe McGraw-Hill

Composition: A Series of Exercises in Art Structure; University of California Press

The Natural Way to Draw; Houghton Mifflin

Constructive Anatomy; Dover Publications

Art materials and supplies

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on the Visual Arts strand of the California State Content Standards and will include at least one concept from each of the five components of the Visual Arts strand.

Throughout this course, students, based upon grade-level appropriateness, will:

- process sensory information unique to the arts;
- produce works of visual arts;
- understand and appreciate the visual arts; and
- analyze and make judgments in the visual arts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Artistic Perception:** Students use artistic terms when describing the intent and content of works of art (8-1.1); analyze and justify how their artistic choices contribute to the expressive quality of their own works of art (8-1.2); and identify and describe the ways in which artists convey the illusion of space, (7-1.3).
2. **Create Expressions:** Students develop increasing skill in the use of at least three media (7-2.1); and develop skill in mixing paints and showing color relationships (7-2.4).
3. **Historical and Cultural Context Component:** Students compare and contrast works of art from various periods, styles, and cultures and explain how those works reflect the society in which they were made (7-3.2); and describe how art reflects cultural values in various traditions throughout the world (7-3.1).
4. **Aesthetic Value:** Students analyze the form and content of works of art (7-4.1); construct an interpretation of a work of art based on the form and the content of the work (8-4.3); and apply specific and appropriate criteria to assess and critique works of art (7-4.4).

5. **Connections, Relationships, Applications:** Students create paintings that express personal opinions about current social or political issues (8-5.2); and identify professions in or related to the visual arts and some of the specific skills needed for those professions (7-5.4).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. Writing activities must meet the proficient level of assigned writing rubrics.
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Course Title: MIDDLE SCHOOL HEALTH

Grade level: 7-8

Text and Resources:

Globe Health Program; Globe-Fearon
Healthy-Easy to Read; Fisher Hill
Health; Holt, Rinehart and Winston
Health; Glencoe

Course Description

Course Duration: *One Year

Credit Value: N/A

This course will focus on the prevention of unhealthy behaviors and the promotion of attitudes and behaviors that can lead to lifelong health practices. It will address the four unifying ideas from the California State Frameworks on Health Education.

- Acceptance of personal responsibility for lifelong health;
- Respect for and promotion of the health of others;
- An understanding of the process of growth and development; and
- Informed use of health-related information, products and services.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

- 1. Students will demonstrate ways in which they can enhance and maintain their health and well-being. They will:**
 - practice good personal hygiene on a regular a basis;
 - select healthy food choices and eating practices;
 - participate in activities that promote fitness;
 - recognize and accept differences in body types and maturation levels;
 - identify entertainment that promotes mental/physical health; and
 - develop and use effective coping strategies.
- 2. Students will understand and demonstrate behaviors that prevent disease and speed recovery from illness. They will:**
 - practice positive health behaviors;
 - take medicines properly;
 - recognize symptoms of common illnesses; and
 - understand statistics related to AIDS and other sexually transmitted diseases.
- 3. Students will practice behaviors that reduce the risks of becoming involved in potentially dangerous situations. They will:**
 - practice safe behavior in and around motorized vehicles/water;
 - learn conflict resolution skills;
 - practice safe behavior in recreational activities;
 - distinguish between helpful and harmful substances;

- recognize that alcohol/drugs play a role in many dangerous situations; and
 - exercise self-control.
4. **Students understand and demonstrate how to play a positive, active role in promoting the health of his/her family, school and community. They will:**
- develop effective communication skills;
 - follow acceptable actions toward others;
 - follow school rules related to health;
 - understand basic first aid procedures; and
 - recognize the role of parental responsibilities, as well as, the difficulty and challenges of being a teenage parent.
5. **Students understand the variety of physical, mental, emotional and social changes that occur throughout life. They will:**
- develop a realistic body image;
 - recognize the affects of performance-altering substances;
 - set short term and long term goals as a way of guiding one's life;
 - develop a focus on the future; and
 - understand and accept individual difference in growth/development.
6. **Students understand their developing sexuality, choose to abstain from sexual activity and treat the sexuality of others with respect. They will:**
- avoid, recognize and respond to social influences to become sexually active;
 - analyze messages about sexuality from society; and
 - identify positive ways to show affection.
7. **Students identify information, products and services that may be helpful/harmful to their health. They will:**
- identify appropriate sources of health services;
 - identify and analyze a variety of things that influence consumers; and
 - identify and combat fraudulent/misleading products and info.
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: HIGH SCHOOL HEALTH

Grade level: 9-12

Text and Resources*:

Globe Health Program; Globe-Fearon
Healthy-Easy to Read; Fisher Hill
Health; Holt, Rinehart and Winston
Health; Glencoe

Supplemental Resources:

Practical Parenting; J. Weston Walch
Your Pregnancy & Newborn Journey; Morning Glory Press
Nurturing Your Newborn; Morning Glory Press
Your Baby's First Year; Morning Glory Press
The Challenge of Toddlers; Morning Glory Press
Discipline From Birth to Three; Morning Glory Press

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Quarter

Credit Value: 1-2.5

This course will focus on the prevention of unhealthy behaviors and the promotion of attitudes and behaviors that can lead to lifelong health practices. It will address the four unifying ideas from the California State Frameworks on Health Education.

- Acceptance of personal responsibility for lifelong health;
- Respect for and promotion of the health of others;
- An understanding of the process of growth and development; and
- Informed use of health-related information, products and services.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

- 1. Students will demonstrate ways in which they can enhance and maintain their health and well-being. They will:**
 - practice good personal hygiene;
 - use protective equipment and avoid exposure to excessive noises;
 - analyze influences on food choices/maintain healthy eating;
 - develop emotional/mental health resiliency factors; and
 - create and maintain a personal fitness plan.
- 2. Students will understand and demonstrate behaviors that prevent disease and speed recovery from illness. They will:**
 - practice positive health behaviors;
 - correctly interpret medicine instructions;

- recognize symptoms of common illnesses;
 - recognize the importance of prenatal and perinatal care; and
 - understand the prevention of sexually transmitted diseases, especially HIV/AIDS.
- 3. Students will practice behaviors that reduce the risks of becoming involved in potentially dangerous situations. They will:**
- develop/use skills to avoid/resolve conflicts;
 - understand danger of weapons/rules prohibiting weapons at school;
 - use good decision-making skills in high-risk situations;
 - demonstrate knowledge of emergency procedures/situations;
 - understand environmental factors that affect health/safety;
 - develop and use assertiveness skills to avoid exploitation; and
 - recognize that the use of alcohol, tobacco and other drugs plays a role in many dangerous situations.
- 4. Students understand and demonstrate how to play a positive, active role in promoting the health of his/her family, school and community. They will:**
- develop effective communication skills;
 - learn positive ways to show/express feelings;
 - develop a post-graduate plan;
 - assume responsibility for taking care of the school;
 - help support positive family interactions; and
 - cultivate positive relationships with peers.
- 5. Students understand the variety of physical, mental, emotional and social changes throughout life. They will:**
- practice behaviors that will provide the option of healthy parenting;
 - express support/compassion for others who are grieving; and
 - understand/accept individual differences in growth/development.
- 6. Students understand their developing sexuality and treat the sexuality of others with respect. They will:**
- explore and analyze the effects of social and cultural influences on human sexuality; and
 - understand the consequences of unwanted pregnancies and the effects of teenage pregnancies.
- 7. Students identify information, products and services that may be helpful/harmful to their health. They will:**
- use critical thinking skills to analyze marketing and advertising techniques;
 - recognize helpful products and services;
 - identify appropriate sources of health services;
 - use valid nutrition information to make healthy food choices; and
 - understand appropriate practices to maintain weight control.
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: GRADE SEVEN MATHEMATICS

Grade level: 7

Text and Resources:

Algebra ½; Saxon Publishers
Saxon Math 87; Saxon Publishers

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

The first semester of this Pre-Algebra course will help students develop the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will compute interest through percentages, graph linear function, compare rational numbers with scientific notation, and convert fractional numbers between fractions, decimals and percents.

The second semester will cover statistics, graphs, probability, and linear geometry, including angles and proportions, the Pythagorean Theorem, problems computing surface areas and three-D objects, and varying units of measurement. Instruction will include basic operations with monomials.

Practical application through the incorporation of word problems is required in this course. This course provides many of the mathematical foundational skills and concepts required for students to pass the mathematical portion of the California High School Exit Exam (CAHSEE.)

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following course objectives are based on the Grade 7 Mathematical Content Standards.

1. **Number Sense:** Students know the properties of, and compute with, rational numbers expressed in a variety of forms (7-1.0); and use exponents, powers and roots and use exponents in working with fractions (7-2.).
2. **Algebra and Functions:** Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities and graphs (7-1.0); interpret and evaluate expressions involving integer powers and simple roots (7-2.); graph and interpret linear and some nonlinear functions (7-3.); and solve simple linear equations and inequalities over the rational numbers (7-4.0).
3. **Measurement and Geometry:** Students compute the perimeter, area and volume of common geometric objects and use the results to find measures of less common objects; they know how perimeter, area and volume are affected by changes of scales (7-2.); choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems (7-1); and know the Pythagorean theorem and deepen their understanding of plane and solid geometric shapes by constructing figures that meet given conditions and by identifying attributes of figures (7-3.).

4. **Statistics, Data Analysis and Probability:** Students collect, organize and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program (7-1).
 5. **Mathematical Reasoning:** Students make decisions about how to approach problems (7-1.); use strategies, skills and concepts in finding solutions (7-2.); and determine a solution is complete and move beyond a particular problem by generalizing to other situations (7-3.).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: MATHEMATICS IIA/B

Grade level: 7-12

Text and Resources*:

Saxon Math 54, Part I and Part II; Saxon Publishers

Saxon Math 65, Part I; Saxon Publishers

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-10

This course enables students to develop conceptual skills needed for successful learning in whole numbers, fractions, decimals and percents. Students recognize and apply the basic symbols and language of mathematics. In addition, students perform basic computational skills in problem-solving activities using real-life situations. This course will provide many of the foundational skills that are required for students to pass the mathematical portion of the CAHSEE.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Number Sense:** Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions, and students use the concepts of negative numbers (4-1.0); extend their use and understanding of whole numbers to the addition and subtraction of simple decimals (4-2.0); solve problems involving addition, subtraction, multiplication and division of whole numbers and understand the relationships among the operations (4-3.0); and know how to factor small whole numbers (4-4.0).
 2. **Algebra and Functions:** Students use and interpret variables, mathematical symbols and properties to write and simplify expressions and sentences (4-1.0); and know how to manipulate equations (4-2.0).
 3. **Measurement and Geometry:** Students understand perimeter and area (4-1.0); use two-dimensional coordinate grids to represent points and graph lines and simple figures (4-2.0); and demonstrate an understanding of plane and solid geometric objects and use this knowledge to show relationships and solve problems (4-3.0).
 4. **Statistics, Data Analysis and Probability:** Students organize, represent and interpret numerical and categorical data and clearly communicate their findings (4-1.0); and make predictions for simple probability situations (4-2.0).
 5. **Mathematical Reasoning:** Students make decisions about how to approach problems (4-1.0); use strategies, skills and concepts in finding solutions (4-2.0); and move beyond a particular problem by generalizing and applying it to other situations (4-3.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: MATHEMATICS IIC

Grade level: 7-12

Text and Resources*:

Saxon Math 65, Part II; Saxon Publishers

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course enables students to develop conceptual skills needed for successful learning in whole numbers, fractions, decimals and percents. Students recognize and apply the basic symbols and language of mathematics. In addition, students perform basic computational skills in problem-solving activities using real-life situations. This course will provide many of the foundational skills which are required for students to pass the mathematical portion of the CAHSEE.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Number Sense:** Students compute with very large and very small numbers, positive and negative numbers, decimals, and fractions and understand the relationship between decimals, fractions and percents (5-1.0); and perform calculations and solve problems involving addition, subtraction and simple multiplication and division of fractions and decimals (5-2.0).
 2. **Algebra and Functions:** Students use and interpret variables, mathematical symbols and properties to write and simplify expressions and sentences (4-1.0); and use variables in simple expressions, compute the value of the expressions for specific values of the variable, plot and interpret the results (5-1.0).
 3. **Measurement and Geometry:** Students understand and compute the volumes and areas of simple objects (5-1.0); and identify, describe and classify the properties of, and the relationships between, plane and solid geometric figures (5-2.0).
 4. **Statistics, Data Analysis and Probability:** Students display, analyze, compare and interpret different data sets including data sets of different sizes (5-1.0).
 5. **Mathematical Reasoning:** Students make decisions about how to approach problems (5-1.1, 1.2); use strategies, skills and concepts in finding solutions (5-2.0); and move beyond a particular problem by generalizing and applying it to other situations (5-3.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: MATHEMATICS IIIA/B

Grade level: 7-12

Text and Resources*:

Saxon Math 76, Part I and Part II; Saxon Publishers

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

Students will increase their capability with the four basic arithmetic operations applied to positive and negative numbers, whole numbers, fractions and decimals. They will know and use common measuring units to determine length and area and know and use formulas to determine the volume of simple geometric figures. Students will learn how to use a protractor and a compass to measure angles and solve problems. They will also learn to use grids, tables, graphs and charts to record and analyze data. Students should begin to apply that knowledge to statistics and probability as well as the concepts of mean, median and mode of data sets and how to calculate the range. Students will learn how to compute ratios, proportions and percentages. Letters for numbers in formulas involving geometric shapes and in ratios to represent an unknown part of an expression will be introduced as well as one-step linear equations. Students will have an introductory level of knowledge related to the process of data analysis and sampling. This course will focus on the foundational skills that are required for students to pass the mathematics portion of the CAHSEE.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

1. **Number Sense:** Students compare and order fractions, decimals and mixed numbers and solve problems involving fractions, ratios, proportions and percentages (6-1.0); convert fractions to decimals and percentages and use these representations (7-1.3); differentiate between rational and irrational numbers (7-1.4); calculate the percentage of increases and decreases of a quantity (7-1.6); solve problems of discounts, markups, commissions, profit and interest (7-1.7); add and subtract fractions by using factoring (7-2.2); and multiply, divide and simplify rational numbers by using exponent rules (7-2.3).
2. **Algebra and Functions:** Students analyze and use tables, graphs and rules to solve problems involving rates and proportions (6-2.0).
3. **Measurement and Geometry:** Students deepen their understanding of measurement of plane and solid shapes and use this understanding to solve problems (6-1.0); identify and describe the properties of two-dimensional figures (6-2.0); and construct and read drawings and models made to scale (7-1.2).
4. **Statistics, Data Analysis and Probability:** Students compute and analyze statistical measurement for data sets (6-1.0); use data samples of a population and describe the characteristics and limitations of the

samples (6-2.0); and determine theoretical and experimental probabilities and use these to make predictions about events (6-3.0).

5. **Mathematical Reasoning:** Students make decisions about how to approach problems (6-1.0); use strategies, skills and concepts in finding solutions (6-2.0); and move beyond a particular problem by generalizing and applying it to other situations (6-3.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: PRE-ALGEBRA A

Grade level: 7-12

Text and Resources*:

Algebra ½, Part I; Saxon Publishers

Saxon Math 87, Part I; Saxon Publishers

Pacemaker Pre-Algebra; Globe Fearon

Pre-Algebra; Prentice Hall

Middle School Math Concepts and Skills Course 2; McDougal Littell

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This Pre-Algebra course will help students develop the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will compute interest through percentages, graph linear function, compare rational numbers with scientific notation and convert fractional numbers between fractions, decimals and percents. Practical application through the incorporation of word problems is required in this course. This course includes many of the mathematical concepts that are found in the CAHSEE.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following course objectives are based on the Grade 7 Mathematical Content Standards:

1. **Number Sense:** Students know the properties of, and compute with, rational numbers expressed in a variety of forms (7-1.0); and use exponents, powers and roots and use exponents in working with fractions (7-2.0).
2. **Algebra and Functions:** Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities and graphs (7-1.0); and interpret and evaluate expressions involving integer powers and simple roots (7-2.0).
3. **Measurement and Geometry:** Students compute the perimeter, area and volume of common geometric objects and use the results to find measures of less common objects. They know how perimeter, area and volume are affected by changes of scales (7-2.0).
4. **Statistics, Data Analysis and Probability:** Students collect, organize and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program (7-1.0).

5. **Mathematical Reasoning:** make decisions about how to approach problems (7-1.0); use strategies, skills and concepts in finding solutions (7-2.0); and determine a solution is complete and move beyond a particular problem by generalizing to other situations (7-3.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: PRE-ALGEBRA B

Grade level: 7-12

Text and Resources*:

Algebra ½, Part II; Saxon Publishers

Saxon Math 87, Part II; Saxon Publishers

Middle School Math Concepts and Skills Course 2; McDougal Littell

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

Prerequisite: Pre-Algebra A

This course is a continuum of the Mathematical Content Standards taught in Pre-Algebra A. It will cover statistics, graphs, probability, linear geometry, including angles and proportions, the Pythagorean Theorem, problems computing surface areas and three-D objects, and varying units of measurement. Instruction will include basic operations with monomials. Practical application through the incorporation of word problems is required in this course. This course provides many of the mathematical foundational skills and concepts required for students to pass the mathematical portion of the CAHSEE.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following course objectives are based on the Grade 7 Mathematical Content Standards:

1. **Measurement and Geometry:** Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems (7-1.0); and know the Pythagorean Theorem and deepen their understanding of plane and solid geometric shapes by constructing figures that meet given conditions and by identifying attributes of figures (7-3.0).
 2. **Algebra and Functions:** Students graph and interpret linear and some nonlinear functions (7-3.0); and solve simple linear equations and inequalities over the rational numbers (7-4.0).
 3. **Mathematical Reasoning:** Students make decisions about how to approach problems (7-1.0); use strategies, skills and concepts in finding solutions (7-2.0); and determine a solution is complete and move beyond a particular problem by generalizing to other situations (7-3.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: HIGH SCHOOL MATHEMATICS A

Grade level: 9-12

Text and Resources*:

Pre-Algebra; AGS
Algebra ½; Saxon Publishers
Saxon Math 87, Part I; Saxon Publishers
Algebra I: Concepts and Skill, Part I; McDougal Littell

Supplementary Text Options:

Saxon Math 54; Saxon Publishers
Saxon Math 65; Saxon Publishers
Saxon Math 76, Part I; Saxon Publishers
Key to Algebra; Key Curriculum Press

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course is based upon the math standards included in the CAHSEE, as outlined in the *Sequenced Pattern of Instruction*. Students will acquire the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will also learn to apply the Grade 9-12 Mathematical Reasoning Standards to daily life activities. Teachers will use layered curriculum, based on the CAHSEE and student skill levels to meet individual student needs. The technique of “backwards mapping” will be incorporated to provide standards-based scaffolding for those students whose mathematics skill levels are below grade level. Thus, the textbook options range from basic mathematics to algebraic concepts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Grades 8-12 Mathematical Content Standards unless noted otherwise:

1. **Algebra and Functions:** Students graph and interpret graphs (7-1.5) and graph functions (7-3.1, 3.3); solve algebraic problems (1.0-4.0); learn algebraic terminology (7-1.1, 1.3); learn order of operations (7-1.2); and evaluate expressions (7-2.1, 2.2).
2. **Algebra:** Students graph linear equations and compute “X” and “Y” intercepts (6.0); verify point-line segments through line equations (7.0); and identify parallel lines, perpendicular lines and their slope.
3. **Statistics and Probability:** Students define independent events and solve for probabilities (1.0); study conditional probability (2.0); study discrete random variables (3.0); use standard distributions (4.0);

- determine mean and standard deviations (5.0); compute mean, median, mode of data (6.0); and use various methods to organize and display data (8.0).
4. **Number Sense:** Students study rational numbers (7-1.2); convert fractions to decimals/percents (7-1.3); solve discount, markup and commission problems (7-.7); and study negative exponents (7-2.1).
 5. **Mathematical Reasoning:** Students use charts, graphs, tables, diagrams and models to explain math reasoning.
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: HIGH SCHOOL MATHEMATICS B

Grade level: 9-12

Text and Resources*:

Algebra ½; Saxon Publishers
Saxon Math 87; Part I; Saxon Publishers
Algebra I: Concepts and Skills, Part I; McDougal Littell

Supplementary Text Options:

Saxon Math 54; Saxon Publishers
Saxon Math 65; Saxon Publishers
Saxon Math 76, Part I; Saxon Publishers
Key to Algebra; Key Curriculum Press

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course is based upon the Mathematical Content Standards included in the CAHSEE, as outlined in the *Sequenced Pattern of Instruction*. Students will acquire the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will also learn to apply the Grade 9-12 Mathematical Reasoning Standards to daily life activities. Teachers will use layered curriculum, based on the CAHSEE and student skill levels to meet individual student needs. The technique of “backwards mapping” will be incorporated to provide standards-based scaffolding for those students whose mathematics skill levels are below grade level. Thus, the textbook options range from basic mathematics to algebraic concepts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Grades 8-12 Mathematical Content Standards unless noted otherwise.

1. **Algebra and Functions:** Students graph and interpret graphs (7-1.5) and graph functions (7-3.1, 3.3, 3.4); solve direct variation (7-4.2); learn algebraic techniques to solve word problems (15.0); add, subtract, multiply and divide monomials (10.0); solve algebraic problems (5.0, 6.0, 7.0, 8.0, 9.0); interpret graphs (7-3.1 3.3); and study linear equations and inequalities (7-4.1).
2. **Algebra:** Students graph linear equations and compute “X” and “Y” intercepts (6.0); verify point-line segments through line equations (7.0); and identify parallel lines, perpendicular lines and their slope.
3. **Geometry:** Students study area, perimeter and volume (8.0, 9.0, 10.0); (11.0, 12.0); (7-2.1, 2.2, 2.3); study circle/Pi (7-2.1, 21.0); study 90-degree triangles (18.0, 20.0) (7-3.3); study Pythagorean Theorem

(14.0, 15.0) (7-3.3); study congruency (4.0, 5.0); use properties to find unknown angles (13.0, 19.0, 20.0); compare measurement systems (7-1.1); read scale drawings (7-1.2); learn measures expressed as rates or products (7-1.3); and use coordinate graphs to plot simple figures (7-3.2).

4. **Mathematical Reasoning:** Students use charts, graphs, tables, diagrams and models to explain math reasoning and problem solving strategies (Heuristics) (7-1.1, 1.2, 2.4); and study estimation (7-2.1, 2.3).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: HIGH SCHOOL MATHEMATICS C

Grade level: 9-12

Text and Resources*:

Algebra ½; Saxon Publishers
Saxon Math 87, Part I; Saxon Publishers
Algebra I: Concepts and Skills, Part I; McDougal Littell

Supplementary Text Options:

Saxon Math 54; Saxon Publishers
Saxon Math 65; Saxon Publishers
Saxon Math 76, Part I; Saxon Publishers

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One semester

Credit Value: 1-5

This course is based upon the Mathematical Content Standards included in the CAHSEE, as outlined in the *Sequenced Pattern of Instruction*. Students will acquire the skills necessary to manipulate numbers, solve equations and understand the general principles at work. Students will also learn to apply the Grade 9-12 Mathematical Reasoning Standards to daily life activities. Teachers will use layered curriculum, based on the CAHSEE and student skill levels to meet individual student needs. The technique of “backwards mapping” will be incorporated to provide standards-based scaffolding for those students whose mathematics skill levels are below grade level. Thus, the textbook options range from basic mathematics to algebraic concepts.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Grades 8-12 Mathematical Content Standards unless noted otherwise.

1. **Number Sense:** Students study scientific notation (7-1.1); compute with rational numbers (7-1.2); convert fractions to decimals and percents (7-1.3); compute percent of increase and decrease (7-1.6); compute discounts and mark-ups (7-1.7); study negative exponents (7-2.1); work with fractions: add/subtract/factor trees (7-2.2); study exponent rules (7-2.5); study express/support solutions (7-2.3); and study perfect/imperfect squares (7-2.4).
2. **Statistics and Probability:** Students study central tendency: mean, median, mode and range (6-1.1); identify and evaluate statistical data (6-2.5); identify forms of display for data (various graphs) (7-1.1); represent all possible outcomes and express probability (6-3.1); represent probabilities as ratios,

- proportions, decimals and percentages (6-3.3); plot numerical variables on scatterplot (7-1.2); and compute minimum, lower, median, upper quartiles and maximum of data set (7-1.3).
3. **Mathematical Reasoning:** Students use of charts, graphs, tables, diagrams and models to explain math reasoning and problem solving strategies (Heuristics) (7-1.1, 1.2, 2.4); and study estimation (7-2.1, 2.3).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: ALGEBRA IA

Grade level: 8-12

Text and Resources*:

Algebra I – Concepts and Skills; McDougall Littell
Algebra I – Standardized Test Practice; McDougall Littell
Algebra I; Key Curriculum

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on symbolic reasoning, as calculations with symbols are central in algebra. Through the study of algebra, students develop an understanding of the symbolic language of mathematics and the sciences. Additionally, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations.

*Open entry/exit

Course Content: Key Content Standards and Course Objectives

Part I (Chapters 1-3)

Students will:

- write and evaluate variable expressions (1.0);
- check solutions to equations and inequalities (3.0);
- add, subtract, multiply and divide real numbers (2.0);
- use distributive property and combine like terms (2.0);
- solve linear equations which involve multiple steps (4.0); and
- solve decimal equations, formulas for a specified variable and real world problems involving ratios, rates and percents (5.0).

Part II (Chapters 4-6)

Students will:

- graph linear equations using table of values, point-plotting, intercepts and slopes (6.0);
- identify and evaluate functions (7.0);
- plot vertical and horizontal lines (8.0);
- write equations in slope-intercept, point-slope and standard forms (9.0);
- solve and graph equations of parallel and perpendicular lines (8.0); and
- solve compound inequalities and absolute value equations (9.0).

Part III (Chapters 7-9)

Students will:

- solve linear equations by graphing, substitution and linear combination (9.0);
- write expressions in exponential form (11.0);
- evaluate expressions and solve applied problems (10.0); and
- identify x-intercepts of graphs and check whether an ordered pair is a solution of an inequality (21.0).

Part IV (Chapters 10-12)

Students will:

- add, subtract, multiply, divide, and factor polynomials (10.0);
- learn special products of polynomials (12.0);
- factor polynomials and solve polynomial equations by factoring (12.0);
- solve proportion problems and rational equations (13.0);
- use direct and inverse variation to solve problems (16.0);
- learn operations with radicals and rational exponents (11.0);
- solve quadratic equations by completing the square (19.0); and
- use deductive reasoning to construct proofs (23.0, 24.0, 25.0).

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.
3. Students' assessments will be evaluated for each assigned section using Standardized Practice Tests.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: COLLEGE PREP ALGEBRA IA

Grade level: 8-12

Text and Resources*:

Algebra I: Concepts and Skills, Part I; McDougal Littell

Algebra I; Key Curriculum

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on symbolic reasoning, as calculations with symbols are central in algebra. Through the study of algebra, students will develop 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.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 8-12 Algebra I Content Standards. Students will:

- 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 (1.0);
 - understand and use such operations as taking the opposite, finding the reciprocal, and taking a root; understand and use the rules of exponents (2.0);
 - solve equations and inequalities (3.0);
 - solve multi-step problems, including word problems involving linear equations and linear inequalities in one variable and provide justification for each step (5.0);
 - simplify expressions before solving linear equations and inequalities in one variable (4.0);
 - graph a linear equation and compute the x- and y- intercepts (6.0);
 - verify that a point lies on a line, given an equation of the line (7.0); and
 - understand the concepts of parallel lines and how their slopes are related (8.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: COLLEGE PREP ALGEBRA IB

Grade level: 8-12

Text and Resources*:

Algebra I: Concepts and Skills, Part II; McDougal Littell
Algebra I; Key Curriculum

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One semester

Credit Value: 1-5

This course will serve as a continuum of the Grades 8-12 Algebra I Content Standards. The focus will remain on symbolic reasoning, as calculations with symbols are central in algebra. Through the study of algebra, students will develop 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.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 8-12 Algebra I Content Standards. Students will:

- solve a system of two linear equations in two variables algebraically and are able to interpret/ sketch the answer graphically (9.0);
 - add, subtract, multiply and divide monomials and polynomials and solve problems using these techniques (10.0);
 - apply basic factoring techniques to second and simple third-degree polynomials (11.0)
 - solve quadratic equations (14.0);
 - apply algebraic techniques to solve problems (15.0);
 - 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 (16.0);
 - graph quadratic functions (21.0);
 - use the quadratic formula or factoring techniques or both to determine whether the graph of a quadratic function will intersect the x-axis in 0, 1 or 2 points (22.0); and
 - 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 (25.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: GEOMETRY A

Grade level: 9-12

Text and Resources*:

AGS Geometry, Part I; AGS Publishing
Geometry: Applying, Reasoning, Measuring: McDougal Littell

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course will prepare students to construct formal logical arguments and proofs in geometric settings and problems. The geometric skills and concepts developed in this discipline are useful to all students.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

This course is based on the following grades 9-12.

Students will:

- identify and construct points, lines and angles in a plane (4.0);
 - evaluate and write conditionals, apply postulates, use axioms and prove vertical angle theorem (1.0);
 - distinguish parallel, intersecting and skew lines (3.0);
 - identify and name angles formed by transversals crossing parallel lines (7.0);
 - define quadrilaterals and parallels and apply theorems to them (6.0);
 - identify the algebraic equation of the line and use ordered pairs to graph lines on a coordinate plane (17.0);
 - define slope of a line and calculate equations for lines (16.0);
 - can find the midpoint of a segment (17.0);
 - construct and name triangles using angles or sides (12.0);
 - find measures of angles in quadrilaterals and triangles (7.0);
 - construct perpendiculars, define quadrilaterals and parallels, and apply appropriate theorems (10.0);
 - use angle sum theorem to define triangles (13.0);
 - use the SAS postulate to identify corresponding parts in triangles, and identify SSS and ASA congruency in triangles (10.0);
 - make generalizations about reflections and identify lines of symmetry in reflections (22.0);
 - map translations in a coordinate plane (18.0); and
 - describe and graph rotations (22.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: GEOMETRY B

Grade level: 9-12

Text and Resources*:

AGS Geometry, Part I; AGS Publishing

Geometry: Applying, Reasoning, Measuring: McDougal Littell

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course is a continuum of the Geometry Content Standards found in Geometry A. It will prepare students to construct formal logical arguments and proofs in geometric settings and problems.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Students will:

- identify equal proportions (11.0);
 - apply the product theorem of proportions in solving problems (5.0);
 - solve for missing sides of similar triangles (13.0);
 - identify coordinates of dilations (22.0);
 - apply Pythagorean theorem (14.0);
 - determine the area of a trapezoid (12.0);
 - use the distance formula (17.0);
 - identify formulas for finding the perimeters and area of polygons (11.0);
 - use formulas for radius, diameter, circumference and area of a circle (21.0);
 - define trigonometric ratios (18.0);
 - determine volume and surface area of a sphere (21.0);
 - use formulas to determine volume and area of solids (8.0);
 - relate customary and metric units of measurements ; and
 - construct and write equations for simple and component loci (22.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: GEOMETRY A/B – COLLEGE PREP

Grade level: 9-12

Text and Resources*:

Geometry; Holt, Rinehart and Winston

Geometry: Applying, Reasoning, Measuring; McDougal Littell

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will prepare students to construct formal logical arguments and proofs in geometric settings and problems. The geometric skills and concepts developed in this discipline are useful to all students.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

This course is based on the following grades 9-12 One Year Geometry Content Standards.

Part A

Students will:

- construct perpendicular lines, parallel lines, segment bisectors and angle bisectors (7.0);
- define and make geometric conjectures (3.0);
- identify and construct informal proofs (2.0);
- use Euclidean postulates to determine the validity of elementary geometry statements (3.0);
- identify and use the Addition Property of Equality, Reflexive Property of Equality, Symmetric Property and Transitive Properties of Equality (4.0);
- identify and interrelate properties of quadrilaterals (8.0);
- solve problems using polygon congruence (11.0);
- develop three triangle postulates, SSS, SAS and ASA, using construction (5.0);
- identify and use triangle theorems AAA and HL (12.0);
- use congruence of corresponding parts and the Isosceles Triangle Theorem (13.0);
- solve problems using formulas for perimeter and area of triangles, parallelograms and trapezoids (11.0); and
- solve problems using formulas for circumference and area of circles (9.0).

Part B

Students will:

- develop an understanding of orthographic projection, of volume and surface area, dihedral angles, and right and oblique prisms;

- construct translations and dilations of points and lines (22.0);
 - define parts of a circle and develop a theorem for congruent chords and arcs (21.0);
 - use the Tangent Theorem and Inscribed Angle Theorem (13.0);
 - solve problems using tangent and cotangent ratios (18.0);
 - explore and graph the relationship between size of an angle and its sine or cosine (19.0);
 - develop concepts known as golden ratio, networks, projective geometry and fractals (17.0);
 - develop and use Law of Indirect Reasoning;
 - solve problems using logic conjunction, disjunction and negation;
 - develop the concept of indirect proof (reductio ad absurdum); proof by contradiction (2.0); and
 - explore computer logic and do proofs using coordinate geometry (17.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: COLLEGE PREP ALGEBRA IIA

Grade level: 9-12

Text and Resources*:

Algebra II; Saxon Publishers (online only)

Algebra II; McDougal Littell (online only)

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

Prerequisites: Algebra I and Geometry

This course complements and expands the mathematical content and concepts of Algebra I and Geometry. Upon successful completion, students will understand and be able to work 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.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 8-12 Algebra II Content Standards. Students will:

- become adept at operations on polynomials, including long division (3.0);
 - factor polynomials representing the difference of squares, perfect square trinomials and the sum and difference of two cubes (4.0);
 - demonstrate knowledge of how real and complex numbers are related both arithmetically and graphically (5.0); and
 - demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions (9.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grades are optional and require a higher level of performance.
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Course Title: COLLEGE PREP ALGEBRA IIB

Grade level: 9-12

Text and Resources*:

Algebra II; McDougal Littell (online only)

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

Prerequisites: Algebra IIA

This course is a continuum of the standards found in Algebra IIA. It complements and expands the mathematical content and concepts of Algebra I and Geometry. Upon successful completion, students will understand and be able to work 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.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 9-12 Algebra II Content Standards. Students will:

- solve equations and inequalities involving absolute value (1.0);
 - solve systems of linear equations and inequalities by substitution, with graphs, or with matrices (2.0);
 - solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula (8.0);
 - graph quadratic functions (9.0, 10.0);
 - prove simple laws of logarithms 11.0, 13.0);
 - demonstrate that they know the laws of fractional exponents (12.0); and
 - use the properties of logarithms to simplify logarithmic numeric expressions (14.0, 15.0).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grades are optional and require a higher level of performance.
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Course Title: ALGEBRA II/TRIGONOMETRY A

Grade level: 9-12

Text and Resources*:

Algebra II; McDougal Littell

HBJ Algebra 2 with Trigonometry; Harcourt, Brace, Javonovitch

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: Two Semesters

Credit Value: 1-10

Prerequisites: Algebra I and Geometry

This course complements and expands the mathematical content of Algebra I and Geometry. Upon successful completion, students will be able to work with algebraic solutions of problems in various content areas, including solutions of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem and the complex number system.

Course Content: Key Content Standards and Course Objectives

Part I (Chapters 1-4)

Students will:

- evaluate expressions using rules for order of operations (1.0);
- identify subsets of real numbers (1.0);
- use all functions and postulates for real numbers (3.0);
- solve equations with more than one variable for one of the variables and solve equations that involve absolute value (2.0);
- solve and graph inequalities (2.0);
- graphs linear equations, determine slope of the line and use point slope formulas (2.0);
- distinguish between graphing parallel and perpendicular lines (2.0);
- use a proportion to solve direct variation problems (2.0); and
- solve a system of linear equations graphically, addition and substitutes methods (2.0).

Part II (Chapters 5-7)

Students will:

- add multiply, subtract and divide polynomials (4.0);
- learn to factor a given polynomial over the integers (4.0);
- factor a quadratic trinomial and solve the differences of two cubes (10.0);
- use Remainder Theorem (10.0);
- understand synthetic division (5.0);
- use basic function to simplify rational expressions (7.0); and
- solve equations involving rational expressions (7.0).

Part III (Chapters 8-11)

Students will:

- add, subtract, multiply and divide radicals and imaginary numbers (5.0);

- perform functions with complex numbers (5.0);
- solve quadratic equations by completing the square (8.0);
- use the quadratic formula to solve quadratic equations (8.0);
- use the discriminant of a quadratic equation to determine the nature of the roots of a quadratic equation (9.0);
- use the Number of Roots Theorem and the Rational Root Theorem to find the roots of a polynomial equation (7.0);
- write the equation of a circle and graph it (16.0);
- graph an ellipse and write the coordinates of x, y and intercepts and foci from its equation (16.0);
- graph a parabola and write the equation given the focus and directrix (10.0);
- graph a hyperbola given its equation (10.0);
- rewrite an expression involving negative exponents (7.0);
- express a decimal number in scientific notation;
- simplify and solve radical and exponential equations (7.0);
- graph an exponential function and its inverse logarithmic function (11.0); and
- apply properties of logarithms (11.0).

Part IV (Chapters 12-15)

Students will:

- use rule of an arithmetic sequence and write the terms, the first term and the difference (22.0);
- write the terms of a geometric sequence given the first term and the common ratio (21.0);
- find partial sums of arithmetic series and the sum of a finite geometric series (23.0);
- use the Binomial Theorem (20.0);
- graph points and planes in three-space (24.0);
- solve systems of linear equations in three variables (24.0);
- use the augmented matrix method to solve systems of equations in three variables (24.0);
- perform addition, multiplication and scalar multiplication on matrices ;
- calculate the number of permutations of a set of elements (19.0);
- compute the probability that at least one of two or more events in a given sample space will occur (25.0);
- compute the probability that two dependent events will both occur or that two independent events will both occur (12.0);
- find angles that are coterminal with a given angle (1.0);
- evaluate sine, cosine and tangent given a point on the terminal side of an angle (2.0);
- use the relationship between sides of $30^\circ - 60^\circ - 90^\circ$ triangles and $45^\circ - 45^\circ - 90^\circ$ triangles to evaluate the sine, cosine and tangent of certain angles (12.0);
- use tables and interpolation to evaluate sine, cosine and tangent (2.0);
- find measure of an angle given its cotangent, secant or cosecant (5.0, 6.0);
- use angles of elevation and depression to solve problems (4.0); and
- use the Law of Sines and Law of Cosines to solve triangles (3.0).

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.
3. Students' assessments will be evaluated for each assigned section using Standardized Practice Tests.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
2. The student must receive a minimum score of 70% on chapter tests and final evaluations.

Course Title: COLLEGE PREP ALGEBRA II/TRIGONOMETRY

Grade level: 9-12

Text and Resources*:

Algebra II; McDougal Littell
Advanced Algebra; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: Two Semesters

Credit Value: 1-10

Prerequisites: Algebra I and Geometry

Parts I and II: This course complements and expands the mathematical content and concepts of Algebra I and Geometry. Upon successful completion, students will understand and be able to work 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.

Parts III and IV: This course is a continuum of the standards found in Algebra IIA. It complements and expands the mathematical content and concepts of Algebra I and Geometry. Upon successful completion, students will understand and be able to work 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.

Course Content: Key Content Standards and Course Objectives

The following objectives are based on Algebra II standards.

Part I (Chapters 1-4)

Students will:

- identify linear equations and linear relationships between variables in a table (2.0);
- write an equation in slope intercept form given two points or slope and a point on a line (2.0);
- graph a scatter plot and identify data correlation;
- solve problems involving direct variation (2.0);
- solve problems by writing and solving linear equations (1.0);
- solve and graph linear inequalities (1.0);
- use function notation, identify increasing and decreasing linear functions and use properties of functions (5.0);
- perform operations using the properties of exponents (4.0, 5.0);
- determine relationship of coordinates reflected over “X” and “Y” axes (5.0);
- define the inverse of a function;
- use matrices to store and represent data; and
- solve a system of two linear equations by elimination, using augmented matrix and using row reduction method and back substitution (2.0).

Part II (Chapters 5-8)

Students will:

- write quadratic functions as a product of two linear functions (8.0);
- approximate the maximum and minimum value of a quadratic function (10.0);
- analyze and solve quadratic equations and use the distance formula (17.0);
- find the vertex, axis of a symmetry and direction of opening for the graphs of quadratic functions in the form $f(x)=a(x-h)^2+k$ (9.0);
- define two forms of polynomial functions and write the factored form of a polynomial (4.0);
- use the Factor Theorem of Algebra and use the division algorithm for polynomials (7.0);
- determine exponential functions by graphing and identify growth of funds under various compounding methods (7.0);
- identify exponential and logarithmic functions as inverse functions (12.0);
- identify product, quotient and power properties of logarithms (13.0); and
- identify the trigonometric ratios in special right triangles (12.0).

Part III (Chapters 9-11)

Students will:

- given an inverse variation relationship, find the constant of variation and write the equation of variation (24.0);
- identify the graph and write the equation of vertical and horizontal asymptotes of a rational function that is the quotient of two linear functions (16.0);
- write an equation of a parabola and identify the vertex, focus and directrix of a parabola (10.0);
- write the equation of a circle and determine the radius when given the equation of the circle (16.0);
- determine the experimental probability of an event and use the Fundamental Principle of Counting to determine how many ways a decision can be made (18.0); and
- determine the number of permutations of a distinct object taken one at a time (19.0).

Part IV (Chapters 12-14)

- determine whether a given sequence is arithmetic or geometric (22.0);
- find the n th term of an arithmetic sequence (23.0);
- find the n th term of a geometric sequence (23.0);
- find the measure of central tendency, mean, median and mode of a set of data (24.0);
- construct a frequency table, a histogram and a stem-and-leaf plot for given data (25.0);
- find all parts of a triangle when given the measures of two angles and the length of the included side; and
- find all parts of a triangle when given the lengths of two sides and the measure of the included angle.

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
-

Course Title: PHYSICAL EDUCATION IIA

Grade level: 9-12

Text and Resources: N/A

Course Description

Course Duration: *One Semester

Credit Value: 1-5

The focus of high school physical fitness is on the development of long-term habits that lead to a healthy and fit adult lifestyle. Students should learn to develop a personalized fitness program, analyze skills for effective movement, and select activities for the pursuit of individual excellence. Ultimately, students should be able to develop a personalized plan for lifetime fitness by assessing personal needs, interests, abilities and opportunities in the area of fitness and by selecting activities that contribute to the achievement of personal fitness goals.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Students will:

- understand the rules, fundamentals and basic concepts of baseball, basketball, kickball, soccer and football;
 - be able to analyze the basic offensive and defensive strategies in games and sports;
 - understand the physiological, psychological and social benefits of a healthy, active lifestyle;
 - assess and analyze their personal fitness;
 - analyze and compare health and fitness benefits derived from various physical activities;
 - demonstrate responsible personal behavior while participating in athletics;
 - learn how to play and participate in different sports and activities out of their comfort zone;
 - achieve and maintain a health-enhancing level of physical fitness;
 - learn the importance of good behavior and sportsmanship during organized athletics; and
 - learn the physical and mental benefits of good nutrition and its impact on exercise and athletics.
-

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
-

Course Title: PHYSICAL EDUCATION IIB/C/D

Grade level: 9-12

Text and Resources: N/A

Course Description

Course Duration: *One to Three Semesters

Credit Value: 1-15

The focus of high school physical fitness is on the development of long-term habits that lead to a healthy and fit adult lifestyle. Students should learn to develop a personalized fitness program, analyze skills for effective movement, and select activities for the pursuit of individual excellence. Ultimately, students should be able to develop a personalized plan for lifetime fitness by assessing personal needs, interests, abilities and opportunities in the area of fitness and by selecting activities that contribute to the achievement of personal fitness goals.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Students will:

- understand the relationship between biomechanical principles and movement;
 - be able to analyze the basic offensive and defensive strategies in games and sports;
 - understand the physiological, psychological and social benefits of a healthy, active lifestyle;
 - assess and analyze their personal fitness;
 - analyze and compare health and fitness benefits derived from various physical activities;
 - demonstrate responsible personal behavior while participating in movement activities;
 - understand the interrelationship between history and culture and games, sports, play and dance; and
 - achieve and maintain a health-enhancing level of physical fitness.
-

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: GRADE SEVEN SCIENCE A

Grade level: 7

Text and Resources:

Life Science; Holt, Rinehart and Winston
Life Science; National Geographic
Life Science; Prentice-Hall

Course Description

Course Duration: *One Semester

Credit Value: N/A

Seventh grade science is focused on life science. One reason for this focus is the students' own biological and behavioral transition into early adolescence. Young adolescents make decisions that can have an enormous influence on their lives. The study of life science provides a knowledge base upon which they can make well-informed and wise decisions about their health and behavior.

Another important reason for the focus on life science in seventh grade is to encourage young adolescents to continue to build their knowledge of the natural sciences. A foundation in modern biological sciences is essential for many career fields, including technology.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 7 Science Content Standards.

1. **Cell biology:** All living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope (7.1).
2. **Genetics:** A typical cell of any organism contains genetic instructions that specify its traits. Those traits may be modified by environmental influences (7.2).
3. **Evolution:** Biological evolution accounts for the diversity of species developed through gradual processes over many generations (7.3).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Life Science Content Standards (7.7).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
-

Course Title: GRADE SEVEN SCIENCE B

Grade level: 7

Text and Resources:

Life Science; Holt, Rinehart and Winston

Life Science; National Geographic

Life Science; Prentice-Hall

Course Description

Course Duration: *One Semester

Credit Value: N/A

Seventh grade science is focused on life science. One reason for this focus is the students' own biological and behavioral transition into early adolescence. Young adolescents make decisions that can have an enormous influence on their lives. The study of life science provides a knowledge base upon which they can make well-informed and wise decisions about their health and behavior.

Another important reason for the focus on life science in seventh grade is to encourage young adolescents to continue to build their knowledge of the natural sciences. A foundation in modern biological sciences is essential for many career fields, including technology.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 7 Science Content Standards.

1. **Earth and Life History:** Evidence from rocks allows us to understand the evolution of life on Earth (7.4).
2. **Structure and Function in Living Systems:** The anatomy and physiology of plants and animals illustrate the complementary nature of structure and function (7.5).
3. **Physical Principles in Living Systems:** Physical principles underlie biological structures and functions (7.6).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Life Science Content Standards (7.7).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: GRADE EIGHT SCIENCE

Grade level: 8

Text and Resources:

Earth Science – Geology; Globe-Fearon
Earth Science – Oceans and Atmosphere; Globe-Fearon
Earth Science – The Universe; Globe-Fearon
Earth Science; Holt, Rinehart and Winston
Earth Science; AGS
Everyday Science; National Geographic
Physical Science; Prentice-Hall
Concepts and Challenges in Physical Science; Globe Fearon
Sound and Light; Holt, Rinehart and Winston
Introduction to Matter; Holt, Rinehart and Winston
Electricity and Magnetism; Holt, Rinehart and Winston

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

Physical science is the area of focus in eighth grade. Students study topics in physics such as motion, forces and the structure of matter. Earth, the solar system, chemical reactions, chemistry of biological processes, the periodic table, density and buoyancy are also topics to be covered in eighth grade. Students should begin to grasp four concepts that help to unify physical science: force and energy; the laws of conservation; atoms, molecules and the atomic theory; and kinetic theory.

Mastery of the eighth grade physical science content will greatly enhance the ability of students to succeed in high school science classes.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 8 Science Content Standards.

1. **Motion:** The velocity of an object is the rate of change of its position (8.1).
2. **Forces:** Unbalanced forces cause changes in velocity (8.2).
3. **Structure of Matter:** Elements have distinct properties and atomic structure. All matter is comprised of one or more of over 100 elements (8.3).
4. **Earth in the Solar System:** The structure and composition of the universe can be learned from the study of stars and galaxies and their evolution (8.4).
5. **Reactions:** Chemical reactions are processes in which atoms are rearranged into different combinations of molecules (8.5).

6. **Chemistry of Living Systems:** Principles of chemistry underlie the functioning of biological systems (8.6).
7. **Periodic Table:** The organization of the periodic table is based on the properties of the elements and reflects the structure of atoms (8.7).
8. **Density and Buoyancy:** All objects experience a buoyant force when immersed in a fluid (8.8).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Physical Science Content Standards (8.9).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: MIDDLE SCHOOL SCIENCE A

Grade level: 7-8

Text and Resources:

Introduction to Science; Holt, Rinehart and Winston
Concepts and Challenges in Life Science; Globe Fearon
Life Science; Holt, Rinehart and Winston
Life Science; National Geographic
Life Science; Prentice-Hall
Earth Science – Geology; Globe-Fearon
Earth Science – Oceans and Atmosphere; Globe-Fearon
Earth Science – The Universe; Globe-Fearon
Earth Science; Holt, Rinehart and Winston
Earth Science; AGS
Everyday Science; National Geographic
Physical Science; Prentice-Hall
Concepts and Challenges in Physical Science; Globe Fearon
Sound and Light; Holt, Rinehart and Winston
Introduction to Matter; Holt, Rinehart and Winston
Electricity and Magnetism; Holt, Rinehart and Winston

Course Description

Course Duration: *One Semester

Credit Value: N/A

This course will integrate many of the Science Content Standards for grades 7 and 8, which include the life and physical sciences. This course outline reflects the *Grades 7/8 Sequenced Pattern of Instruction*.

The study of life science provides a knowledge base upon which students can make well-informed decisions about their own health and behavior. A foundation in modern biological sciences is also essential for the adolescent as it is required for many career fields.

Mastery of the eighth grade physical science content will greatly enhance the ability of students to succeed in high school science classes.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 7 and 8 Science Content Standards.

1. **Life Science:** Structure and function of living things (7.5); physical principals in living systems (7.6); and cell biology (7.1).
2. **Physical Science:** Structure of matter (8.3); the periodic table (8.7); chemistry of living things (8.6); and reactions (8.5).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Life Science Content Standards.

Students should develop their own questions and perform investigations (7.7, 8.9).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: MIDDLE SCHOOL SCIENCE B

Grade level: 7-8

Text and Resources:

Introduction to Science; Holt, Rinehart and Winston
Concepts and Challenges in Life Science; Globe Fearon
Life Science; Holt, Rinehart and Winston
Life Science; National Geographic
Life Science; Prentice-Hall
Earth Science – Geology; Globe-Fearon
Earth Science – Oceans and Atmosphere; Globe-Fearon
Earth Science – The Universe; Globe-Fearon
Earth Science; Holt, Rinehart and Winston
Earth Science; AGS
Everyday Science; National Geographic
Physical Science; Prentice-Hall
Concepts and Challenges in Physical Science; Globe Fearon
Sound and Light; Holt, Rinehart and Winston
Introduction to Matter; Holt, Rinehart and Winston
Electricity and Magnetism; Holt, Rinehart and Winston

Course Description

Course Duration: *One Semester

Credit Value: N/A

This course will integrate many of the Science Content Standards for grades 7 and 8, which include the life and physical sciences. This course outline reflects the *Grades 7/8 Sequenced Pattern of Instruction*.

The study of life science provides a knowledge base upon which students can make well-informed decisions about their own health and behavior. A foundation in modern biological sciences is also essential for the adolescent as it is required for many career fields.

Mastery of the eighth grade physical science content will greatly enhance the ability of students to succeed in high school science classes.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 7 and 8 Science Content Standards.

1. **Life Science:** Genetics (7.2); evolution (7.3); and earth and life history (7.4).
2. **Physical Science:** Motion (8.1); forces (8.2); density and buoyancy (8.0); and Earth in the Solar System (8.4).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Life Science Content Standards.

Students should be develop their own questions and perform investigations (7.7, 8.9).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student's work.
3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.

Course Title: EARTH SCIENCE A

Grade level: 9-12

Text and Resources*:

Earth Science – Geology; Globe-Fearon
Earth Science – Oceans and Atmosphere; Globe-Fearon
Earth Science – The Universe; Globe-Fearon
Earth Science; Holt, Rinehart and Winston
Earth Science; AGS
Environmental Science; Holt, Rinehart and Winston
Environmental Science; Scott-Foresman, Addison-Wesley

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5 credits

Through this course students will gain an understanding of the physical and chemical processes that formed and continue to operate here on Earth. As they study these standards, students will also learn more about the geological factors that help make California special. Students will become familiar with the evidence that dates the Earth at 4.6 billion years old.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 9-12 Earth Science Content Standards.

1. **Earth's Place in the Universe:** Astronomy and planetary exploration reveal the structure, scale and change of the solar system over time (ES 9-12.1); Earth-based and space-based astronomy reveals the structure, scale and change over time of stars, galaxies and the universe (ES 9-12.2); and plate tectonics operating over geologic time have changed the patterns of land, sea and mountains on the Earth's surface (ES 9-12.3).
2. **California Geology:** The geology of California underlies the state's wealth of natural resources as well as its natural hazards (ES 9-12.9).
3. **Structure and Composition of the Atmosphere:** Life has changed Earth's atmosphere and changes in the atmosphere affect conditions for life.

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Earth Science Content Standards (IE 9-12.1 a-n).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: EARTH SCIENCE B

Grade level: 9-12

Text and Resources*:

Earth Science – Geology; Globe-Fearon

Earth Science – Oceans and Atmosphere; Globe-Fearon

Earth Science – The Universe; Globe-Fearon

Earth Science; Holt, Rinehart and Winston

Earth Science; AGS

Environmental Science; Holt, Rinehart and Winston

Environmental Science; Scott-Foresman, Addison-Wesley

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5 credits

This course will focus on energy in the Earth system and how it drives convection in our atmosphere and oceans, which in turn drives global climate conditions and local weather patterns. Students will learn about Earth's interior heat that originated with the formation of the planet as well as the interior heat generated by the decay of radioactive nuclides. Students will also understand how life on Earth creates changes in the atmosphere, which in turn, affects conditions for life on Earth.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grades 9-12 Earth Science Content Standards.

1. **Energy in the Earth System:** Energy enters the Earth system primarily as solar radiation and eventually escapes as heat (ES 9-12.4); heating of Earth's surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents (ES 9-12.5); and climate is the long term average of a region's weather and depends on many factors (ES 9-12.6).
2. **Biogeochemical Cycles:** Each element on Earth moves among reservoirs in the solid Earth, oceans, atmosphere and organisms as part of biogeochemical cycles (ES 9-12.7).
3. **Structure and Composition of the Atmosphere:** Life has changed Earth's atmosphere and changes in the atmosphere affect conditions for life (ES 9-12.8 a-n).

Investigation and Experimentation

(pending supervising teacher's discretion)

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Earth Science Content Standards (IE 9-12.1).

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
-

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
-

Course Title: BIOLOGY

Grade level: 9-12

Text and Resources*:

Biology; American Guidance Service
Essentials of Biology; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

Students will learn about the fundamental life processes of plants and animals, physiology, genetics, evolution and ecosystems in this course.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Cell Biology

Students will learn that fundamental life processes of plants and animals depend on a variety of chemical reactions that occur in specialized areas of the organism's cells. They will know:

- cells are enclosed within semi permeable membranes, enzymes are proteins that catalyze biochemical reactions, prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure, 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, and the role of the endoplasmic reticulum and Golgi apparatus in the secretion of proteins (1.a, 1.b);
- usable energy is captured from sunlight by chloroplasts and is stored through the synthesis of sugar from carbon dioxide (1.f);
- the role of the mitochondria in making stored chemical-bond energy available to cells by completing the breakdown of glucose to carbon dioxide (1.g);
- most macromolecules (polysaccharides, nucleic acids, proteins, lipids) in cells and organisms are synthesized from a small collection of simple precursors (1.h);
- how chemiosmotic gradients in the mitochondria and chloroplast store energy for ATP production; and
- how eukaryotic cells are given shape and internal organization by a cytoskeleton or cell wall or both (1.i).

Genetics

Mutation and sexual reproduction lead to genetic variation in a population. As a basis for understanding this concept students will know:

- meiosis is an early step in sexual reproduction, only certain cells in a multicellular organism undergo meiosis (2.a);

- how random chromosome segregation explains the probability that a particular allele will be in a gamete, and new combinations of alleles may be generated in a zygote through the fusion of male and female gametes (fertilization);
- why approximately half of an individual's DNA sequence comes from each parent and the role of chromosomes in determining an individual's sex, how to predict possible combinations of alleles in a zygote from the genetic makeup of the parents and 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), the genetic basis for Mendel's laws of segregation and independent assortment and how to predict the probable mode of inheritance from a pedigree diagram showing phenotypes (3.b);
- the general pathway by which ribosomes synthesize proteins, using tRNAs to translate genetic information in mRNA, how to apply the genetic coding rules to predict the sequence of amino acids from a sequence of codons in RNA, and 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;
- specialization of cells in multicellular organisms is usually due to different patterns of gene expression;
- proteins can differ from one another in the number and sequence of amino acids, why proteins having different amino acid sequences typically have different shapes and chemical properties;
- genetic composition of cells can be altered by incorporation of exogenous DNA into the cells, the general structures and functions of DNA, RNA and protein (4.c);
- how to apply base-pairing rules to explain precise copying of DNA during semiconservative replication and transcription of information from DNA into mRNA;
- how genetic engineering (biotechnology) is used to produce novel biomedical and agricultural products, and how basic DNA technology (restriction digestion by endonucleases, gel electrophoresis, ligation and transformation) is used to construct recombinant DNA molecules (5.c); and
- how exogenous DNA can be inserted into bacterial cells to alter their genetic makeup and support expression of new protein products (5.e).

Ecology

Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept, students will know:

- biodiversity is the sum total of different kinds of organisms and is affected by alterations of habitats (6.a);
- how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size, and how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration and death (6.b, 6.c);
- how water, carbon and nitrogen cycle between abiotic resources and organic matter in the ecosystem and how oxygen cycles through photosynthesis and respiration (6.d);
- a vital part of an ecosystem is the stability of its producers and decomposers, 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 (6.e); and
- 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 (6.g).

Evolution

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, students will know:

- why natural selection acts on the phenotype rather than the genotype of an organism, why alleles that are lethal in a homozygous individual may be carried in a heterozygote and thus maintained in a gene pool, and new mutations are constantly being generated in a gene pool; variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions (7.a);

- the conditions for Hardy-Weinberg equilibrium in a population and why these conditions are not likely to appear in nature, and how to solve the Hardy-Weinberg equation to predict the frequency of genotypes in a population given the frequency of phenotypes (7.e);
- how natural selection determines the differential survival of groups of organisms, a great diversity of species increases the chance that at least some organisms survive major changes in the environment, the effects of genetic drift on the diversity of organisms in a population, and reproductive or geographic isolation affects speciation;
- how to analyze fossil evidence with regard to biological diversity, episodic speciation and mass extinction;
- 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 (8.f); and
- 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 (8.g).

Physiology

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, students will know:

- how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide (9.a);
- how the nervous system mediates communication between different parts of the body, how feedback loops in the nervous and endocrine systems regulate conditions in the body, and the functions of the nervous system and the role of neurons in transmitting electrochemical impulses (9.b);
- the roles of sensory neurons, interneurons, and motor neurons in sensation, thought and response (9.e);
- the individual functions and sites of secretion of digestive enzymes (amylases, proteases, nucleases, lipases), stomach acid and bile salts, and the homeostatic role of the kidneys (9.g);
- the cellular and molecular basis of muscle contraction (9.h);
- how hormones (including digestive, reproductive, osmoregulatory) provide internal feedback mechanisms for homeostasis at the cellular level and in whole organisms; and
- the role of the skin in providing nonspecific defenses against infection, the role of antibodies in the body's response to infection, how vaccination protects an individual from infectious diseases, important differences between bacteria and viruses, 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 and the roles of phagocytes, B-lymphocytes and T-lymphocytes in the immune system.

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher for better understanding of the course content.

Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student's work.

Course Title: HIGH SCHOOL INTEGRATED SCIENCE, PARTS 1-4

Grade level: 9-12

Text and Resources*:

Hold Science Spectrum; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10 credits

Integrated science is a standards-based science curriculum that incorporates four strands of science: physics, chemistry, biology and earth science. This integrated approach will provide students with a broad-based understanding of the interrelationship of the strands. The study will also include investigation and experimental standards. Students will develop a command for the academic language of science, as scientific vocabulary is important in building conceptual understanding. Emphasis is on cross-discipline understanding to promote thinking critically, applying knowledge to design systems that promote problem solving to real life situations.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Nature of Matter, Part I, Chemistry (Chapters 2-5) – Chemistry Standards

Students will:

- explain relationship between matter, atoms and elements (2.a);
- interpret common chemical formulas (3.a);
- understand properties of matter, define density and apply laws of conservation ;
- explain Dalton’s theory, Bohr’s model and state charge, mass and location of each part of an atom (1.j);
- relate the organization of periodic table, locating and clarifying the grouping of elements (1.b);
- explain the relationship between a mole of a substance and Avogadro’s constant and calculate molar mass (3.c);
- distinguish between compounds and mixtures and understand ionic bonds and covalent bonds (2.a);
- distinguish compound names and formulas (2.b); and
- identify names and structures of groups of organic compounds and polymers (10.a, 10.b).

Motion and Energy, Part II, Physics (Chapters 7-12) – Physics Standards

Students will:

- relate speed to distance and time and define velocity (1.a);
- solve problems involving time, distance, velocity and momentum;
- calculate acceleration of an object and describe how force affects the motion of an object (1.d);

- distinguish between balanced and unbalanced forces and understand how friction affects the motion of an object (1.b);
- define work and power and calculate the work done and the rate at which work is done (2.a);
- use the concept of mechanical advantage (2.d);
- define temperature and convert readings between various scales (3.0);
- describe heat as a form of energy transfer, and investigate conduction, convection and radiation, and recognize that waves transfer energy (3.0);
- distinguish between mechanical and electromagnetic waves, explain the relationship between particle vibration and wave motion, and recognize the difference between transverse waves and longitudinal waves (4.0);
- explain what factors affect the strength of the electrical force (5.0);
- describe the characteristics of the electric field due to a charge (5.f);
- define resistance and voltage and map series and parallel circuits ;
- calculate resistance, current and voltage given the other two quantities, and use schematic diagrams to represent circuits (5.e);
- describe the orientation of Earth's magnetic field and how magnetism is produced by electric currents (5.j);
- summarize the condition required for electromagnetic induction (5.m);
- distinguish between physical transmissions and atmospheric transmissions for telephone, radio and television signals (5.h); and
- describe basic functions of a computer, the binary code and how the internet works (5.o).

Part III, The Human Body (Chapters 13-17) – Biology Standards

Students will:

- describe the properties and roles of different nutrients in the body and use the USDA food guides to select a balanced diet (9.e);
- compare energy content of foods, understand caloric value and list factors that influence metabolic rate (9.e);
- explain the chemistry of digestion and identify the organs involved (9.a);
- describe the organs of circulation, their form and function, and the components of blood (10.f);
- measure heart beat and blood pressure (10.f);
- identify the structures of the respiratory system (9.a);
- understand the function of gas exchange, regulation of breathing and measure lung volume with a Spirometer;
- describe respiratory diseases related to smoking (10.e);
- explain the structures of the human skeletal system (10.h);
- identify skeletal, cardiac and smooth muscles and describe disorders of bones, joints and muscles (10.h);
- explain the value of aerobic and anaerobic exercise (10.h);
- relate spaceflight and the effects on the skeleton, muscles, coordination and circulatory system (10.i);
- identify the five common pathogens (10.e);
- describe three ways infectious diseases are spread and the three major body defenses (10.e);
- identify the structures of male and female reproductive systems and their functions;
- trace the major events of the female hormonal cycle (10.i);
- trace the events of fertilization, implantation and development of the fetus to birth;
- list characteristics of childhood, adolescence and adulthood; and
- define reproductive health in adolescence and the effects of sexually transmitted disease (10.b).

Part IV, Earth Science – The Universe (Chapters 18-21) – Earth Science Standards

Students will:

- define the basic structure of the universe (1.o);
- state the main features of the big bang theory and the evidence supporting the expansion of the universe (2.g);
- list the three types of galaxies and describe the structure of our Milky Way galaxy (2.b);
- discuss the evolution of stars and understand the basic structure and properties of stars (2.c);
- identify the formation of the solar system, the planets and their features (1.a);
- explain the Earth’s geologic layers and describe the Earth’s lithosphere and the theory of plate tectonics (3.a);
- identify three types of plate boundaries and explain the presence of magnetic bands on the ocean floor that support the theory of plate tectonics (3.b);
- identify the cause of earthquakes and define “S” waves, “P” waves and surface waves (3.d);
- describe how earthquakes are measured and rated (3.d);
- explain how and where volcanoes occur and describe different types of common volcanoes (3.e);
- identify the three types of rock, listing the properties of each type of rock based on physical and chemical conditions (3.e);
- describe the rock cycle and how rocks change form;
- explain how relative and absolute ages of rocks are determined;
- discuss the evolution of Earth’s atmosphere and the current primary layers (8.a);
- describe the oxygen-carbon dioxide cycle and global warming (8.b);
- explain water cycles, temperature, humidity and cloud types (9.c);
- use pressure gradients to explain wind and its direction;
- analyze weather maps and factors that affect Earth’s climate;
- explain structure of ecosystems and species that change them (9.o); and
- study energy resources and their misuse, pollution and recycling (9.o).

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.
3. Students will use the “internet connect” as Sci Links (listed in each chapter of text)., www.scilinks.org.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student’s work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
 4. Letter grade contracts are optional and require a higher level of performance.
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Course Title: CHEMISTRY

Grade level: 9-12

Text and Resources*:

Chemistry; Addison Wesley

Interactive Chemistry; Saunders

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

Students will master the concepts of the behavior of matter. Math skills are enhanced with understanding stoichiometry. Students will understand the interaction of chemicals in their world and learn about gases, acids, bases and chemical equilibrium. Students will learn that organic and biochemistry are the basis of life and that an important aspect of life is the nuclear process.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Atomic and Molecular Structure

Students will learn that the periodic table displays the elements in increasing atomic number and shows how periodicity of the physical and chemical properties of the elements relates to atomic structure. As a basis for understanding this concept, they will:

- relate the position of an element to its atomic number and atomic mass (1.a);
- identify metals, semimetals, nonmetals and halogens (1.b);
- identify alkali metals, alkaline earth metals and transition metals, trends in ionization energy, electronegativity and the relative sizes of ions and atoms (1.c);
- determine the number of electrons available for bonding (1.d);
- know the nucleus of the atom is much smaller than the atom yet contains most of its mass;
- 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 (1.f);
- relate the position of an element in the periodic table to its quantum electron configuration (1.g);
- understand the 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, explore the development of the quantum theory of atomic structure and the historical importance of the Bohr model of the atom (1.h); and
- learn 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 by using Planck's relationship ($E = hv$) (1.j).

Chemical Bonds

Students will understand that 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 students will learn:

- atoms combine to form molecules by sharing electrons to form covalent or metallic bonds or by exchanging electrons to form ionic bonds (2.a);
- many chemical bonds between atoms in molecules are covalent (2.b);
- salt crystals are repeating patterns of positive and negative ions held together by electrostatic attraction (2.c);
- atoms and molecules in liquids move in a random pattern because the intermolecular forces are too weak to hold the atoms or molecules in a solid form (2.d);
- the Lewis dot structures and to predict the shape of simple molecules and their polarity from Lewis dot structures (2.e);
- electronegativity and ionization energy relate to bond formation; and
- 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 (2.g).

Conservation of Matter and Stoichiometry

Students will learn that 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. They will learn and understand:

- how to describe chemical reactions by writing balanced equations (3.a);
- the quantity one mole is set by defining one mole of carbon 12 atoms to have a mass of exactly 12 grams and that one mole equals 6.02×10^{23} particles (atoms or molecules) (3.b);
- how to determine the molar mass of a molecule from its chemical formula and a table of atomic masses and convert the mass of a molecular substance to moles, number of particles, or volume of gas at standard temperature and pressure (3.d); and
- 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, calculate percent yield in a chemical reaction, identify reactions that involve oxidation and reduction balance oxidation-reduction reactions (3.e).

Gases and Their Properties

Students will understand the kinetic molecular theory describes the motion of atoms and molecules and explains the properties of gases. They will learn and understand:

- the random motion of molecules and their collisions with a surface create the observable pressure on that surface (4.a);
- the random motion of molecules explains the diffusion of gases; 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 (4.b);
- the values and meanings of standard temperature and pressure (STP), how to convert between the Celsius and Kelvin temperature scales; that there is no temperature lower than 0 Kelvin (4.e);
- the kinetic theory of gases relates the absolute temperature of a gas to the average kinetic energy of its molecules or atoms (4.g); and
- how to solve problems by using the ideal gas law in the form $PV = nRT$, and how to apply Dalton's law of partial pressures to describe the composition of gases and Graham's law to predict diffusion of gases (4.h).

Acids and Bases

Students will learn that acids, bases, and salts are three classes of compounds that form ions in water solutions. As a basis for understanding students will know:

- the observable properties of acids, bases, and salt solutions, learn acids are hydrogen-ion-donating and bases are hydrogen-ion-accepting substances, strong acids and bases fully dissociate and weak acids and bases partially dissociate (5.a);
- how to use the pH scale to characterize acid and base solutions;
- the Arrhenius, Brønsted-Lowry and Lewis acid-base definitions (5.e); and
- how to calculate pH from the hydrogen-ion concentration and that buffers stabilize pH in acid-base reactions (5.f).

Solutions

Students will learn that solutions are homogeneous mixtures of two or more substances. As a basis for understanding this concept students will know:

- the definitions of solute and solvent, how to describe the dissolving process at the molecular level by using the concept of random molecular motion, and that temperature, pressure and surface area affect the dissolving process (6.a);
- how to calculate the concentration of a solute in terms of grams per liter, molarity, parts per million and percent composition;
- the relationship between the molality of a solute in a solution and the solution's depressed freezing point or elevated boiling point (6.b); and
- how molecules in a solution are separated or purified by the methods of chromatography and distillation (6.e).

Chemical Thermodynamics

Students will learn that energy is exchanged or transformed in all chemical reactions and physical changes of matter. As a basis for understanding this concept students will know:

- how to describe temperature and heat flow in terms of the motion of molecules (or atoms) and that chemical processes can either release (exothermic) or absorb (endothermic) thermal energy (7.a);
- energy is released when a material condenses or freezes and is absorbed when a material evaporates or melts (7.c);
- how to solve problems involving heat flow and temperature changes, using known values of specific heat and latent heat of phase change (7.d); and
- how to apply Hess's law to calculate enthalpy change in a reaction and how to use the Gibbs free energy equation to determine whether a reaction would be spontaneous (7.e).

Reaction Rates

Students will learn that chemical reaction rates depend on factors that influence the frequency of collision of reactant molecules. As a basis for understanding this concept, students will know:

- the rate of reaction is the decrease in concentration of reactants or the increase in concentration of products with time; how reaction rates depend on such factors as concentration, temperature and pressure (8.a);
- the role a catalyst plays in increasing the reaction rate (8.c); and
- the definition and role of activation energy in a chemical reaction (8.d).

Chemical Equilibrium

Students will learn that chemical equilibrium is a dynamic process at the molecular level. As a basis for understanding this concept students will know:

- how to use Le Chatelier's principle to predict the effect of changes in concentration, temperature and pressure (9.a); and
- equilibrium is established when forward and reverse reaction rates are equal and how to write and calculate an equilibrium constant expression for a reaction (9.b).

Organic Chemistry and Biochemistry

Students will learn that the bonding characteristics of carbon allow the formation of many different organic molecules of varied sizes, shapes, and chemical properties and provide the biochemical basis of life. As a basis for understanding this concept students will know:

- large molecules are formed by repetitive combinations of simple subunits (10.a);
- the bonding characteristics of carbon that result in the formation of a large variety of structures ranging from simple hydrocarbons to complex polymers and biological molecules (10.b);
- amino acids are the building blocks of proteins (10.c);
- the system for naming the ten simplest linear hydrocarbons and isomers that contain single bonds, simple hydrocarbons with double and triple bonds, and simple molecules that contain a benzene ring (10.d);
- how to identify the functional groups that form the basis of alcohols, ketones, ethers, amines, esters, aldehydes and organic acids (10.c); and
- the R-group structure of amino acids and know how they combine to form the polypeptide backbone structure of proteins (10.f).

Nuclear Processes

Students will learn that nuclear processes are those in which an atomic nucleus changes, including radioactive decay of naturally occurring and human-made isotopes, nuclear fission and nuclear fusion. As a basis for understanding this concept students will know:

- protons and neutrons in the nucleus are held together by nuclear forces that overcome the electromagnetic repulsion between the protons (11.a);
- the energy release per gram of material is much larger in nuclear fusion or fission reactions than in chemical reactions. The change in mass (calculated by $E = mc^2$) is small but significant in nuclear reactions (11.b);
- some naturally occurring isotopes of elements are radioactive, as are isotopes formed in nuclear reactions (11.c);
- the three most common forms of radioactive decay (alpha, beta and gamma) and know how the nucleus changes in each type of decay, how alpha, beta, and gamma radiation produce different amounts and kinds of damage in matter and have different penetrations and how to calculate the amount of a radioactive substance remaining after an integral number of half-lives have passed (11.d); and
- protons and neutrons have substructures and consist of particles called quarks (11.g).

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher for better understanding of the course content.

Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: PHYSICS

Grade level: 9-12

Text and Resources*:

Physics; Murphy, et al. Merrill
Project Physics; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

Physics content enables the student to understand the physical laws fundamental to all sciences. It explains how matter behaves. The concepts of momentum and energy emphasize conservation laws. The importance of measurement is the first order. This course uses problem solving as the primary means of studying physics.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Motion and Forces

Students will learn that Newton's laws predict the motion of most objects. As a basis for understanding this concept students will know:

- how to solve problems that involve constant speed and average speed, when forces are balanced, no acceleration occurs and an object continues to move at a constant speed or stays at rest (Newton's first law) (1.a);
- how to apply the law $F=ma$ to solve one-dimensional motion problems that involve constant forces (Newton's second law), when one object exerts a force on a second object, and the second object always exerts a force of equal magnitude in the opposite direction (Newton's third law) (1.c);
- the relationship between the universal law of gravitation and the effect of gravity on an object at the surface of Earth and 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) (1.e);
- circular motion requires the application of a constant force directed toward the center of the circle (1.g);
- 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; and
- how to solve two-dimensional trajectory problems; how to resolve two-dimensional vectors into their components and calculate the magnitude and direction of a vector from its components; how to solve two-dimensional problems involving balanced forces (statics), how to solve problems in circular motion by using the formula for centripetal acceleration and 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) (1.g).

Conservation of Energy and Momentum

Students will learn that 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, students will know:

- how to calculate kinetic energy by using the formula $E=(1/2)mv^2$, how to calculate changes in gravitational potential energy near Earth by using the formula (change in potential energy) $=mgh$ (h is the change in the elevation), how to solve problems involving conservation of energy in simple systems, such as falling objects and how to calculate momentum as the product mv (2.a);
- momentum is a separately conserved quantity different from energy; and an unbalanced force on an object produces a change in its momentum (2.e); and
- how to solve problems involving elastic and inelastic collisions in one dimension by using the principles of conservation of momentum and energy and how to solve problems involving conservation of energy in simple systems with various sources of potential energy, such as capacitors and springs (2.g).

Heat and Thermodynamics

Students will learn that 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 students will know:

- heat flow and work are two forms of energy transfer between systems, 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 the law of the conservation of energy (3.a);
- 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 (3.c);
- most processes tend to decrease the order of a system over time and that energy levels are eventually distributed uniformly (3.d);
- entropy is a quantity that measures the order or disorder of a system and that this quantity is larger for a more disordered system (3.e);
- the statement "Entropy tends to increase" is a law of statistical probability that governs all closed systems (second law of thermodynamics) (3.f); and
- 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 (3.g).

Waves

Students will learn that waves have characteristic properties that do not depend on the type of wave. As a basis for understanding this concept students will know:

- waves carry energy from one place to another (4.a);
- how to identify transverse and longitudinal waves in mechanical media, such as springs, ropes and on the earth (seismic waves) (4.b);
- how to solve problems involving wavelength, frequency and wave speed (4.c);
- sound is a longitudinal wave whose speed depends on the properties of the medium in which it propagates (4.d);
- radio waves, light and X-rays are different wavelength bands in the spectrum of electromagnetic waves (4.e); and
- how to identify the characteristic properties of waves: interference (beats), diffraction, refraction, Doppler effect and polarization (4.f).

Electric and Magnetic Phenomena

Students will learn that electric and magnetic phenomena are related and have many practical applications. As a basis for understanding this concept students will know:

- how to predict the voltage or current in simple direct current (DC) electric circuits constructed from batteries, wires, resistors and capacitors (5.a);

- how to solve problems involving Ohm's law (5.b);
 - 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 $\text{Power} = IR$ (potential difference) $\times I$ (current) = I^2R (5.c);
 - the properties of transistors and the role of transistors in electric circuits (5.d);
 - charged particles are sources of electric fields and are subject to the forces of the electric fields from other charges (5.e);
 - 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; how to determine the direction of a magnetic field produced by a current flowing in a straight wire or in a coil and changing magnetic fields produce electric fields, thereby inducing currents in nearby conductors (5.f);
 - plasmas, the fourth state of matter, contain ions or free electrons or both and conduct electricity.
 - electric and magnetic fields contain energy and act as vector force fields;
 - 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, how to calculate the electric field resulting from a point charge and static electric fields have as their source some arrangement of electric charges (5.k);
 - 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 (5.n); and
 - how to apply the concepts of electrical and gravitational potential energy to solve problems involving conservation of energy (5.o).
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
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Course Title: GRADE SEVEN HISTORY – SOCIAL SCIENCE A

Grade level: 7

Text and Resources:

**Across the Centuries*; Houghton Mifflin

* Primary Adoption

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

Students will study the social, cultural, and technological changes that occurred in Europe, Africa, and Asia from 500 AD through the 18th Century. This study includes the history and geography of the great civilizations that were developing concurrently throughout the world during medieval and early modern times. Students will examine the growing economic interaction among civilizations as well as the exchange of ideas, beliefs, technologies and commodities. The political and economic changes that occurred during the sixteenth, seventeenth and eighteenth centuries will be examined. Students will study the Mesoamerican and Andean civilizations, the worldwide effects of the Renaissance, Reformation and the Scientific Revolution and their lasting effects on religious, political and cultural institutions.

Seventh grade students will continue to develop the grades 6-8 Historical and Social Science Analysis Skills. Students will build on the skills previously learned and practiced and will work to develop higher order analytical skills.

* Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Students will:

- analyze the causes and effects of the vast expansion and ultimate disintegration of the Roman Empire (7.1);
- analyze the geographic, political, economic, religious, and social structures of civilization of Islam in the Middle Ages, China in the Middle Ages, the Sub-Saharan civilizations of Ghana and Mali in Medieval Africa (7.3);
- analyze the geographic, political, economic, religious, and social structures of the civilizations of Medieval Japan (7.5);
- analyze the geographic, political, economic, religious, and social structures of the civilizations of Medieval Europe (7.6);
- compare and contrast the geographic, political, economic, religious, and social and structures of the Mesoamerican and Andean civilizations (7.7);
- analyze the origins, accomplishments and geographic diffusion of the Renaissance (7.8);
- analyze the historical developments of the Reformation (7.9);

- analyze the historical developments of the Scientific Revolution and its lasting effect on religious, political and cultural institutions (7.10); and
- analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (7.11).

Historical and Social Science Analysis Skills

Students will demonstrate the grades 6-8 chronological, spatial thinking, research and historical interpretation skills.

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: GRADE EIGHT HISTORY – SOCIAL SCIENCE A

Grade level: 8

Text and Resources:

**Call to Freedom*; Holt, Rinehart and Winston
We the People; Center for Civic Education

*Primary Adoption

Course Description

Course Duration: *Two Semesters

Credit Value: N/A

After reviewing the development of America’s democratic institutions founded in the Judeo-Christian heritage and English parliamentary tradition, particularly the shaping of the Constitution, this course will trace the development of American politics, society, culture and economy and relate them to the emergence of major regional differences through the period of the Industrial Revolution. Students will learn about the challenges facing the new nation, with an emphasis on the causes, course and consequences of the Civil War. They will make connections between the rise of industrialization and contemporary social and economic conditions. The students will analyze the Constitution and its impact on their daily lives.

Students will continue to develop the Grades 6-8 Historical and Social Science Analysis Skills. Students will build on the skills previously learned and practiced and will work to develop higher order analytical skills.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

This course is based on the Grade 8 History-Social Science Content Standards. Students will:

- understand the major events preceding the founding of the nation and relate their significance to the development of American constitutional democracy (8.1);
- study the political principles underlying the U.S. Constitution and compare the enumerated and implied powers of the federal government (8.2);
- examine and understand the content of the Bill of Rights (8.2);
- analyze how the Bill of Rights affects their everyday lives;
- analyze what the legislative, executive, and judicial branches of the United States are and what they do;
- understand the foundation of the American political system and the ways in which citizens participate in it;
- study U.S. foreign policy in the early republic (8.3);
- examine the divergent paths of the American people from 1800 to the mid-1800’s and the challenges they faced, with emphasis on the Northeast, emphasis on the South and emphasis on the West (8.6);
- analyze the early and steady attempts to abolish slavery and realize the ideals of the Declaration of Independence (8.9);

- study the multiple causes, key events and complex consequences of the Civil War (8.10);
- review the character and lasting consequences of Reconstruction (8.11); and
- examine the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution (8.12).

Historical and Social Science Analysis Skills

Students will demonstrate the grades 6-8 chronological, spatial thinking, research and historical interpretation skills.

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: WORLD GEOGRAPHY

Grade level: 9

Text and Resources*:

World Geography Today; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on the Earth system, geography history, and human culture in all of the Earth's geographic regions.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

Students will:

- study and analyze the five themes of geography;
 - analyze and study how latitude affects solar energy and climate; the causes of the Earth's seasons; the Earth's system; the Earth's atmosphere and the greenhouse effect; the major influences on the Earth's climate; and the hydrologic cycle;
 - review and study the forces that shape the Earth's surface and plate tectonics and its effects on the world's land forms;
 - study and analyze the meaning of "photosynthesis;"
 - learn what "biomes" are;
 - analyze what "culture" is and how culture affects human geography; "economic geography" and its affect on the way people live; and demography and population growth;
 - study the affects of air pollution on the ozone layer; and
 - study and analyze the physical, human, and economic geography of the United States, Canada, the Caribbean, South America, Mexico, Central America, western and eastern Europe, the Balkans, Russia and North Asia, Central Asia, the Middle East and North Africa, southern Africa, southeast and east Asia, Australia and Antarctica.
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Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: UNITED STATES HISTORY

Grade level: 11

Text and Resources*:

American Nation; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course will focus on major turning points that shaped the United States from its beginnings to the present. Students will trace the rise of the United States democracy, economics, culture, heritage and global relations.

In addition to the United States History and Geography content standards, students will have opportunities to demonstrate intellectual reasoning, reflection and research skills.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The topics to be covered are based on the following Grade 11 United States History Content Standards. Students will:

- learn how the first people arrived in the Americas (11.1);
- examine cultures of the Native Americans and the impact of the Agricultural Revolution (11.1);
- learn about the empires of the 1400-1800's, why Christopher Columbus sailed West and the Native Americans' reaction to the first European explorers (11.2);
- study the French and Spanish settlements and the early Puritan culture (11.2);
- analyze the causes and course of the French and Indian War (11.2);
- study the events surrounding the Revolutionary War (11.2);
- analyze and study the events that led to the ratification of the United States Constitution, the "checks and balances" and "separation of powers" in the United States Government and the significance of the Bill of Rights;
- study the importance of the Louisiana Purchase and the Monroe Doctrine;
- study and analyze the slave system in the southern states in the 1800's; its impact on US society today and the abolitionist movement;
- learn about the Women's Rights movement;
- study the battle for Texas' independence and the westward migration and its affect on Native Americans;
- study and learn the major events surrounding the Civil War and the impact of the Union's victory on slaves (11.4);
- study and learn about the United States Government reservation system and its impact on Native Americans;

- study and analyze the affects of the Industrial Revolution, the origins of labor unions in the United States and the invention of the automobile and its affect on American life;
- learn about the United States’ involvement in the Pacific, the rise of imperialism in the late 1900’s and its affect on US security and economy;
- study the construction of the Panama Canal;
- study the causes and events that led to the United States entry into World War I and the conclusion of World War I and its aftermath;
- learn about the causes and effects of prohibition in the 1920’s;
- learn about the causes of the Great Depression and how the United States recovered from it, including the “New Deal” (11.6);
- study and analyze the rise of anti-Semitism, imperialism, and militarism in Europe in the 1930’s, Japanese military aggression, US declaration of war on Japan and Germany, women’s roles and contributions to the war effort, the defeat of Nazi Germany in World War II, the Holocaust, the dropping of the bombs on Japan, the final phase of World War II and post World War II events (11.7);
- examine the events leading to the “Cold War,” the creation of Israel, the Berlin Crisis, the Cuban Missile Crisis and its resolution;
- study and examine the events and causes of the Korean War and the nuclear weapons race;
- learn about the Civil Rights movement including Brown v Board of Education decision, the Civil Rights Act of 1964 and the life and teachings of Dr. Martin Luther King Jr.;
- study and analyze the events surrounding the Vietnam War and the peace movement;
- study the events leading to President Nixon’s resignation
- learn about the 1979 Iran Hostage Crisis;
- study and analyze the collapse of the Soviet Union and the end of the Cold War;
- learn about the Soviet Union/Afghanistan War;
- study the Iran/Iraq War;
- study the events that led to the Persian Gulf War, its outcome and how it effects Americans today;
- analyze and study the Israeli-Palestinian conflict since 1948; and
- learn about US relations with the Middle East, the events leading to September 11, 2001 terrorist attacks and their effect on United States citizens and the economy.

Historical and Social Science Analysis Skills

Students will demonstrate the grades 9-12 social science intellectual, reasoning, reflection and research skills.

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student’s work.
3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.

Course Title: WORLD HISTORY

Grade level: 10-11

Text and Resources*:

World History; Holt, Rinehart and Winston

World History for a Global Age, Book 1; Globe Fearon

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *Two Semesters

Credit Value: 1-10

This course will focus on major turning points that shaped the modern world, from the late 18th century through World War I. Students will trace the rise of democratic ideas and develop an understanding of the historical roots of current world issues, especially as they pertain to international relations. Students consider multiple accounts of events in order to understand international relations from a variety of perspectives.

In addition to the World History Content Standards for grades 9-12, students will have opportunities to demonstrate the 9-12 intellectual, reasoning, reflection and research skills.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The topics to be covered are based on the following Grade 10 History-Social Science Content Standards. Students will:

- study how anthropologists, archaeologists, historians, and geographers study Prehistory (10.1);
- learn how geography affected the development of ancient Egypt and the Fertile Crescent and examine the characteristics and cultures of the empires of the Fertile Crescent; and the culture in the first Indus River Valley civilization;
- examine how Greek city-states developed; the activities that formed the basis of Athens's economy; the basic ideas of Socrates, Plato and Aristotle; accomplishments of Alexander the Great; the traits and culture of the early Roman Republic and Roman Empire; the origins of Judaism and the founding of Israel; the factors that led to the spread of Christianity; the rise and fall of the Byzantine Empire; and origins of Islam and the main beliefs of Islam (10.2);
- analyze the effects of climate in early Chinese civilization; learn how Confucianism, Taoism, Legalism, and Buddhism influenced Chinese culture and history; and early Japan's Feudal System;
- analyze how the physical features of Africa affected early African culture; examine the independent kingdoms of Kush and Askum;
- learn how the earliest people arrived in the Americas; study the characteristics and history of the Olmec, Toltec, Maya, Aztec and Inca cultures (10.3);
- learn how feudalism shaped political and social development in Europe during the Middle Ages; how the Church influenced life in medieval Europe; the causes and outcome of the Crusades; the Renaissance Period; the role of Calvinism in the Reformation; and the factors that lead to the Scientific Revolution;

- study and analyze Christopher Columbus’s voyages and how they influenced the world; why China and Great Britain went to war in the mid-1800’s; and how the Ottomans built and expanded their empire and organized their government and society;
- study and analyze France in the Age of Absolutism and Peter the Great’s influence on change in Russia;
- study and analyze Britain’s limited constitutional monarchy from 1721-1742; establishment of colonial power based on trade; the American response to British policies after the French and Indian War; the events leading up to the United States Declaration of Independence; and the events leading to the French Revolution; and how Napoleon influenced Europe (10.2);
- examine the Industrial Revolution; the emergence of corporations; and the origins of capitalism, socialism, and communism;
- examine scientific discoveries impact on medicine and surgery and Einstein’s “Special Theory of Relativity;”
- analyze causes and outcomes of the U.S. Civil War (10.3);
- study Latin America’s efforts to win independence from Europe; the economic and cultural motives of Western Imperialism; and the economic importance of the Panama Canal;
- examine the rise and impact of nationalism, imperialism, militarism and communism in Europe and Asia in the early 1900’s; and the events that led to the Russian Revolution and the rise of the Soviet Union (10.7);
- study and analyze the causes of the Great Depression and the impact of the New Deal;
- study and analyze the influences leading to World War II including Japanese aggression in Asia, Italy’s conquest of Ethiopia, Hitler’s aggression in Europe, and the failure of the League of Nation in the early 1930’s; students will study the course of World War II including the fall of France, the Battle of Britain, the Japanese attack on the United States, the Holocaust and how these horrific events impact the world today (10.8);
- study and analyze the events that lead to creation of the nation of Israel, and how the creation of Israel affects world events today; the origins of the major events of the Cold War; the impact of the nuclear arms race on world stability including the Cuban Missile Crisis; and the events that lead to the fall of the Soviet Union;
- study and analyze the events leading to and ending the Vietnam War;
- study and analyze events and influences in the Middle East; the aftermath of the September 11, 2001 terrorist attacks on the United States and the events leading to the United States-lead coalition’s invasion of Iraq (10.10); and
- study and analyze the origins of the Internet and how it changed the way people live.

Historical and Social Science Analysis Skills

Students will demonstrate the grades 9-12 social science intellectual, reasoning, reflection and research skills.

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.

Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student’s work.
3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.

Course Title: ECONOMICS

Grade level: 12

Text and Resources*:

Economics; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

This course will prepare students to master fundamental economic concepts, applying the tools (graphs, statistics, equations) from other subject areas to the understanding of operations and institutions of economic systems. Students will study the basic economic principles of micro and macroeconomics, international economics, comparative economics systems, measurement and methods.

In addition to the Principles of Economics Content Standards for grades 9-12, students will have opportunities to demonstrate the 9-12 social science intellectual, reasoning, reflection and research skills.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 12 Principles of Economics Content Standards. Students will:

- understand common economic terms, concepts and economic reasoning, factors of production and entrepreneurship goals, “supply and demand,” the difference between tax and subsidy; the price system, the difference between perfect and monopolistic competition, general and limited partnerships, formation of corporations, stocks and bonds and how the United States government affects labor, including the examination of the origins of labor unions and their primary goal (12.1);
- learn relationship between education levels and average yearly income, the importance of saving money, the benefits of financial planning and investment; the factors that influence the stock value, establishment of good credit, how lenders make a profit and the benefits and risks of credit cards (12.2);
- learn the four phases of the business cycle, the importance of economic growth, the economic costs of high unemployment rates, the meaning of inflation and its affect on the economy; and
- learn the purpose and role of Federal Reserve Bank, the purpose of taxation; the main provisions of capitalism, socialism and communism and the pros and cons of “free trade” (12.3).

Historical and Social Science Analysis Skills

Students will demonstrate the grades 9-12 social science intellectual, reasoning, reflection and research skills.

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: AMERICAN GOVERNMENT

Grade level: 12

Text and Resources*:

American Government; Holt, Rinehart and Winston

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Duration: *One Semester

Credit Value: 1-5

Through this course, students will develop a deeper understanding of the institutions of American government. They will compare systems of government in the world today and analyze the life and changing interpretations of the Constitution, the Bill of Rights and the current state of the legislative, executive and judiciary branches of government. An emphasis will be placed on analyzing the relationship among federal, state and local governments, with particular attention paid to important historical documents.

In addition to the Principles of American Democracy Content Standards for grades 9-12, students will have opportunities to demonstrate the 9-12 social science intellectual, reasoning, reflection and research skills.

*Open entry/open exit

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 12 Principles of Government Content Standards. Students will:

- learn the purpose of government, different forms of government and the functions they serve (12.1);
- learn the difference between direct and representative democracy; the powers of the national government under the Articles of Confederation and the ratification of the Constitution and the Bill of Rights;
- learn how the Constitution can be amended and analyze the purpose of the three branches of government;
- examine the differences between state and federal powers and how they work together;
- review the role, functions and powers of Congress, the President and the court system and review the role of the President’s Cabinet (12.4);
- learn the factors that cause the national debt;
- learn the role and function of the Supreme Court and the appointment process; the difference between criminal and civil law and the meaning of “due process” and civil liberties (12.5);
- analyze, study, and learn the main provisions of the 1st, 4th, 5th, and 8th Amendments (12.5);
- learn about the role and types of political parties in the United States, study the local, state, and federal election process, examine the role and influence of interest groups in the American political system, and study the four main types of local governments and how the federal, state and local governments receive revenues (12.9);

- learn the differences between the juvenile and adult justice system; and
- learn and analyze the media's role in influencing public opinion about politics (12.10).

Historical and Social Science Analysis Skills

Students will demonstrate the grades 9-12 social science intellectual, reasoning, reflection and research skills.

Methods of Study

1. Students will complete all activities assigned.
 2. Students will participate in discussion with other class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with the quality of the student's work.
 3. The student must receive a minimum score of 70% on a teacher-assigned final evaluation.
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Course Title: SPANISH I

Grade level: 7-12

Text and Resources*:

Churros y Chocolate; Scott Foresman & Co.

ISBN: 0-673-14757-6

*Texts and resources from the attached Marin County Office of Education Instructional Materials – Grades 9-12, Recommended Materials may also be used.

Course Description

Course Value: Two Semesters

Credit Value: 1-10

This course will focus on the development of linguistic, grammar, vocabulary and pronunciation skills through a format where emphasis is placed upon communication skills, enabling students to acquire Spanish as a living, active language.

*Open entry for students who have had sufficient background to fit into an ongoing class, or specified starting dates for new beginning-level Spanish learners.

Course Content: Key Content Standards and Course Objectives

Students will achieve proficiency in the acquisition of the Spanish language at the basic and intermediate levels; achieve this acquisition through a balanced approach of linguistic, grammar, vocabulary and pronunciation foundations, as well as the promotion of communicative ability through situational contexts and sharing information; learn to appreciate and better understand Hispanic cultures, history, and social interactions of Spanish-speaking peoples; and experience the sense of satisfaction and success in their incremental ability to communicate in both written and verbal form in a second language.

Methods of Study

1. Students will complete all in-class and homework activities assigned.
 2. Students will actively participate in all classroom communication-based exercises and activities with class members and/or teacher.
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Evaluation of Performance Standards

1. Students will complete all assignments with a minimum of 70% accuracy.
 2. The supervising teacher will be satisfied with quality of the student's work as exemplified through consistent progress and scores of at least 70% on periodic written and oral quizzes or final evaluation.
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