RELIGION CURRRICULUM STUDENT OUTCOMES

The Religion Curriculum Student Outcomes have been developed by a committee of K-8 teachers and principals in the diocese of San Jose. These outcomes have been organized and structured to be in alignment with the Catechism of the Catholic Church and to be used with Scripture as a primary resource. Prayer is an integral part of the religion class. Worship and liturgies should be experienced frequently. Prayer is introduced at specific grade levels; it is expected that these prayers will continue to be reinforced in every grade thereafter. Academic assessment is an on-going process. Full participation in the Catechist Certification program is expected of all teachers.

Student Outcomes are divided into four major sections:

A. Church/Doctrine
B. Scripture
C. Worship
D. Christian Living

These sections provide the substance for the four major goals of the religion curriculum:

•The student will be able to articulate a knowledge of the doctrine of the Catholic church as a support for being Catholic;
•The student will be able to read, interpret and apply Sacred Scripture to his/her daily life;
•The student will understand and be able to participate in Catholic worship services;
•The student will be able to make moral decisions consistent with the teachings of the Catholic Church.

Content Theme: Our faith calls us to examine and appreciate Church history and our role within the Church community now and in the future.

Instructional Focus: To learn about the history of the Church; to understand one's role in the Church's community; to recognize that all people are called to further the kingdom by living the Good News of the Gospel.

LANGUAGE ARTS STANDARDS

READING

Word Analysis, Fluency and Systemic Vocabulary Development

Vocabulary and Concept Development

•Analyze idioms, analogies, metaphors, and similes to infer the literal and figurative meaning of phrases
•Understand the most important points in the history of English language and use common word origins to determine the historical influences on English word meanings
•Use word meanings within the appropriate context and show ability to verify those meanings by definition, restatement, example, comparison, or contrast

Reading Comprehension

Structural Features of Informational Materials

•Compare and contrast the features and elements of consumer materials to gain meaning from documents
•Analyze text that uses proposition and support patterns

Comprehension and Analysis of Grade-Level-Appropriate Text

•Find similarities and differences between texts in the treatment, scope, or organization of ideas
•Compare the original text to a summary to determine whether the summary accurately captures the main ideas, includes critical details, and conveys the underlying meaning
•Understand and explain the use of a complex mechanical device by following technical directions
•Use information from a variety of consumer, workplace, and public documents to explain a situation or decision and to solve a problem

Expository Critique

•Evaluate the unity, coherence, logic, internal consistency, and structural patterns of text

Literary Response and Analysis

Structural Features of Literature

•Determine and articulate the relationship between the purposes and characteristics of different forms of poetry

Narrative Analysis of Grade-Level-Appropriate Text

•Evaluate the structural elements of the plot, the plot's development, and the way in which conflicts are (or are not) addressed and resolved
•Compare and contrast motivations and reactions of literary characters from different historical eras confronting similar situations or conflicts
•Analyze the relevance of the setting to the mood, tone, and meaning of the text
•Identify significant literary devices that define a writer's style and use those elements to interpret the work

Literary Criticism

•Analyze a work of literature, showing how it reflects the heritage, traditions, attitudes, and beliefs of its author

WRITING

Writing Strategies

Organization and Focus

•Create compositions that establish a controlling impression, have a coherent thesis, and end with a clear and well-supported conclusion
•Establish coherence within and among paragraphs through effective transitions, parallel structures, and similar writing techniques
•Support theses or conclusions with analogies, paraphrases, quotations, opinions from authorities, comparisons, and similar devices

Research and Technology

•Plan and conduct multiple-step information searches by using computer networks and modems
•Achieve an effective balance between researched information and original ideas

Evaluation and Revision

•Revise writing for word choice; appropriate organization; consistent point of view; and transitions between paragraphs, passages and ideas

Writing applications (Genres and Their Characteristics)

•Write biographies, autobiographies, short stories, or narratives
•Write responses to literature
•Write research reports
•Write persuasive compositions
•Write documents related to career development, including simple business letters and job applications
•Write technical documents

WRITTEN AND ORAL ENGLISH LANGUAGE CONVENTIONS

Sentence Structure

•Use correct and varied sentence types and sentence openings to present a lively and effective personal style
•Identify and use parallelism, including similar grammatical forms, in all written discourse to present items in a series and items juxtaposed for emphasis
•Use subordination, coordination, apposition, and other devices to indicate clearly the relationship between ideas

Grammar

•Edit written manuscripts to ensure that correct grammar is used

Punctuation and Capitalization

•Use correct punctuation and capitalization

Spelling

•Use correct spelling conventions

LISTENING AND SPEAKING

Comprehension

•Analyze oral interpretations of literature, including language choice and delivery, and the effect of the interpretations on the listener
•Paraphrase a speaker's purpose and point of view and ask relevant questions concerning the speaker's content, delivery and purpose

Organization and Delivery of Oral Communication

•Organize information to achieve particular purposes by matching the message, vocabulary, voice modulation, expression, and tone to the audience and purpose
•Prepare a speech outline based upon a chosen pattern or organization, which generally includes and introduction; transitions, previews, and summaries; a logically developed body; and an effective conclusion
•Use precise language, action verbs, sensory details, appropriate and colorful modifiers, and the active rather than the passive voice in ways that enliven oral presentations
•Use appropriate grammar, word choice, enunciation, and pace during formal presentations
*Use audience feedback

Analysis and Evaluation of Oral and Media Communication

Students will:
•Deliver narrative presentations
•Deliver oral responses to literature
•Deliver research presentations
•Deliver persuasive presentations

MATHEMATICS STANDARDS

ALGEBRA I

Symbolic reasoning and calculations with symbols are central in algebra

Students will: •Identify and use arithmetic properties of subsets of integers and rational, irrational, and real numbers, including closure properties for the four basic arithmetic operations
•Understand and use such operations as taking opposite,finding the reciprocal, taking a root, and raising to a fractional power
•Solve equations and inequalities involving absolute values
•Simplify expressions before solving linear equations and inequalities in one variable
•Solve multi-step problems
•Graph a linear equation and compute the *x*- and *y*- intercepts
•Verify that a point lies on a line, given an equation of the line
•Understand the concepts of parallel lines and perpendicular lines and how their slopes are related
•Solve a system of two linear equations in two variable algebraically and are able to interpret the answer graphically
•Add, subtract, multiply, and divide monomials and polynomials
•Apply basic factoring techniques to second- and simple third-degree polynomials
•Simplify fractions with polynomials in the numerator and denominator
•Add, subtract, multiply, and divide rational expressions and functions
•Solve a quadratic equation by factoring or completing the square
•Apply algebraic techniques to solve rate problems, work problems, and percent mixture problems
•Understand the concepts of a relation and a function
•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
•Determine whether a relation defined by a graph, a set of ordered pairs, or a symbolic expression is a function and justify the conclusion
•Use the quadratic formula to find the roots of a second-degree polynomial and to solve quadratic equations
•Graph quadratic functions and know that their roots are the *x*-intercepts
•Use the quadratic formula or factoring techniques or both to determine whether the graph of a quadratic function will intersect the x-axis in zero, one, or two points
•Apply quadratic equations to physical problems
•Use and know simple aspects of a logical argument
•Use properties of the number system to judge the validity of results

GEOMETRY

Skills and concepts will develop the ability to construct formal, logical arguments, proofs in geometric settings and problems

Students will:

•Demonstrate understanding by identifying and giving examples of undefined terms, axioms, theorems, and inductive and deductive reasoning
•Write geometric proofs, including proofs by contradictions
•Construct and judge the validity of a logical argument and give counterexamples to disprove a statement
•Prove basic theorems involving congruence and similarity
•Prove that triangles are congruent or similar, and they are able to use the concept of corresponding parts of congruent triangles
•Know and are able to use triangle inequality theorem

•Prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles
•Know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures
•Compute the volumes and surface areas of prisms, pyramids, cylinders, cones and spheres; students commit to memory the formulas for prisms, pyramids and cylinders
•Compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids
•Determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids
•Find and use measurements of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems
•Prove relationships between angles in polygons
•Prove the Pythagorean theorem
•Use the Pythagorean theorem to determine distance and find missing lengths of sides of right triangles
•Perform basic constructions with a straightedge and compass
•Prove theorems by using coordinate geometry
•Know the definitions of basic trigonometric functions defined by the angles of a right triangle
•Use trigonometric functions to solve for an unknown length of a side of a right triangle, given an angle and a length of a side
•Know and are able to use angle and side relationships in problems with special right triangles
•Prove and solve problems regarding relationships among chords, secants, tangents, inscribed angles, and inscribed and circumscribed polygons or circles
•Know the effect of rigid motions on figures in the coordinate plane and space

ALGEBRA II

Expands mathematical content, concepts with algebraic solutions of problems and the complex number system.

Students will:

•Solve equations and inequalities involving absolute value
•Solve systems of linear equations and inequalities by substitution, with graphs, or with matrices
•Be adept at operations on polynomials, including long division
•Factor polynomials representing the differences of squares, perfect square trinomials, and the sum and difference of two cubes
•Demonstrate the knowledge of how real and complex numbers are related both arithmetically and graphically
•Add, subtract, multiply, and divide complex numbers
•Add, subtract, multiply, divide, reduce and evaluate rational expressions
•Solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula
•Demonstrate and explain the effect that changing a coefficient has on the graph of quadratic functions
•Graph quadratic functions and determine the maxima, minima, and zeroes of the function
•Prove simple laws of logarithms
•Know the laws of fractional exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay
•Use the definition of logarithms to translate between logarithms in any base
•Understand and use the properties of logarithms to simplify logarithmic numeric expressions and to identify their approximate values
•Determine whether a specific algebraic statement involving rational expressions, radical expressions, or logarithmic or exponential functions is sometimes true, always true or never true
•Demonstrate and explain how the geometry of the graph of a conic section depends on the coefficients of the quadratic equations representing it
•Use the method for completing the square to put the equation into standard form and can recognize whether the graph of the equation is a circle, ellipse, parabola, or hyperbola
•Use fundamental counting principles to compute combinations and permutation
•Use combination and permutations to compute probabilities
•Know the binomial theorem and use it to expand binomial expressions that are raised to positive integer powers
•Apply the method of mathematical induction to prove general statements about the positive integers
•Find the general term and the sums of arithmetic series and of both finite and infinite geometric series
•Derive the summation formulas for arithmetic series and for both finite and infinite geometric series
•Solve problems involving functional concepts
•Use properties from number systems to justify steps in combining and simplifying functions

PROBABILITY AND STATISTICS

An introduction to the study of probability, interpretation of data, and fundamental statistical problem solving

Students will:

•Know the definitions of the notation of *independent events* and can use the rules for addition, multiplication, and the complementation to solve for probabilities of particular events in finite sample spaces
•Know the definition of *conditional probability* and use it to solve for probabilities in finite sample spaces
•Demonstrate an understanding of the notion of *discrete random variables* by using them to solve for the probabilities of outcomes
•Be familiar with the standard distributions (normal, binomial, and exponential) and can use them to solve for events in problems in which the distribution belongs to those families
•Determine the mean and the standard deviatin of a normally distributed random variable
•Know the definitions of the *mean, median,* and *mode* of a distribution of data and can compute each in particular situations
•Compute the variance and the standard deviation of a distribution of data
•Organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots

SOCIAL SCIENCE STANDARDS

United States History and Geography: Growth & Conflict

Students will:

•Understand the major events preceding the founding of the nation and relate their significance to the development of American constitutional democracy
•Analyze the political principles underlying the U.S. Constitution and compare the powers of the federal government
•Understand the foundation of the American political system and the ways in which citizens participate in it
•Analyze the aspirations and ideals of the people of the new nation
•Analyze U.S. foreign policy in the early Republic
•Analyze the different paths of the American people from 1800 to the mid-1800's and the challenges they faced with emphasis on the Northeast
•Analyze the different paths of the American people in the South from 1800 to the mid-1800's and the challenges they faced
•Analyze the early and steady attempt to abolish slavery and to realize the ideals of the Declaration of Independence
•Analyze the multiple causes, key events, and complex consequences of the Civil War
•Analyze the character and lasting consequences of Reconstruction
•Analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution

SCIENCE STANDARDS

Motion

The velocity of an object is the rate of change or its position

Forces

Unbalanced forces cause changes in velocity

Structure of Matter

Each of the more than 100 elements of matter has distinct properties and a distinct atomic structure

Earth in the Solar System (Earth Sciences)

The structure and composition of the universe can be learned from studying stars and galaxies and their evolution

Reactions

Chemical reactions are processes in which atoms are rearranged into different combinations of molecules

Chemistry of Living Systems (Life Sciences)

Principals of chemistry underlie the functioning of biological systems

Periodic Table

The organization of the periodic table is based on the properties of the elements and reflects the structure of atoms

Density and Buoyancy

All objects experience a buoyant force with immersed in a fluid

Investigation and Experimentation: *Students ask meaningful questions and conduct careful investigations. Students should develop their own questions and perform investigations*

SAINT MARY SCHOOL
2007-08

Rooted in the past; Educating for the future

What students will learn in Eighth Grade:

- Religion
- Language Arts
- Mathematics
- Social Science
- Science

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