

Sixth Grade Instructional Objectives

Bible

- 1. Recall facts and details about the creation account.
- 2. Realize that God planned for man's salvation before man sinned.
- 3. Recall facts and details about Adam and Eve.
- 4. Recall facts and details about Noah and ark
- 5. Realize that God provided redemption through Jesus Christ.
- 6. Recall facts and details of Satan's fall the scattering of people at the Tower of Babel.
- 7. Realize that Satan is the enemy of God and Christians.
- 8. Retrieve facts and details about Abraham and Sarah.
- 9. Realize that God can and will keep His promises.
- 10. Retrieve facts and details about Abraham and Isaac
- 11. Know that God is faithful.
- 12. Retrieve facts and details about Isaac and Rebekah.
- 13. Retrieve facts and details about Joseph.
- 14. Explain that Christians should live for God and seek heavenly joy, not earthly happiness.
- 15. Articulate facts and details about Moses.
- 16. Describe how to overcome fears of this world.
- 17. Articulate facts and details about the plagues on Egypt.
- 18. Describe that salvation comes only through the shed blood of Christ.
- 19. Identify the meaning of each of the Ten Commandments.
- 20. Focus on the fact that a Christian's first priority is to love God.
- 21. Describe the facts about the high priests, the tabernacle, and its furnishings.
- 22. Articulate why God deserves praise and honor.
- 23. Review that Christ is the perfect High Priest, who offered the perfect sacrifice.
- 24. Conclude that people can choose God's way or their own way.
- 25. Conclude that disobedience to God always brings judgment.
- 26. Explain the facts and details about Ruth and David.
- 27. Retrieve facts and details about Solomon.
- 28. Review facts and details about Joash and Hezekiah.
- 29. Recognize that God hears and answers prayer.
- 30. Explain that God rewards obedience, diligence, and hard work.
- 31. Review facts and details about Old Testament kings some that were evil, and some that followed God.
- 32. Recognize that god sends trials to His children to perfect them.
- 33. Recognize the importance of obedience.
- 34. Summarize information about the exile/captivity of the Israelites.
- 35. Retrieve facts and details about Daniel, his friends, and Ezekiel.
- 36. Realize that nothing takes place that God does not allow.
- 37. Review the facts and details about Esther.
- 38. Appreciate God's sovereign control of life's events.
- 39. Express thankfulness for God's provision.
- 40. Explain facts and details about Ezra and Nehemiah.
- 41. Describe how we know that God will never change.
- 42. Appreciate God's mercy and faithfulness toward those who obey Him.

- 43. Retrieve facts and details about Jesus during his time on earth.
- 44. Recognize that Jesus Christ is the Son of God.
- 45. Conclude that Christ is God.
- 46. Put to use facts and details about Jesus' miracles.
- 47. Describe how Christ is over all things.
- 48. Describe facts and details about Christ's Transfiguration.
- 49. Describe that man is saved by faith alone.
- 50. Adhere to the fact that a Christian should glorify God and demonstrate his love for God by doing good works.
- 51. Reiterate facts and details about the Holy Spirit coming upon the disciples.
- 52. Describe the leading of the Holy Spirit.
- 53. Recognize the Christian's responsibility to witness.
- 54. Develop a concern for missions.
- 55. Retrieve facts and details about Peter and the early Christians.
- 56. Clarify that God loves all man-kind.
- 57. Establish the ability to rely on God's grace and strength to be faithful in times of trial.
- 58. Retrieve facts and details about Peter, John, Simon, and Phillip.
- 59. Support that salvation is both for Jew and Gentiles using Scripture.
- 60. Initiate reliance on the Holy Spirit's power for boldness in witnessing.
- 61. Retrieve facts and details about Paul and his missionary journeys.
- 62. Maintain joy and endure when people reject the Gospel message.

Reading

- 1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- 3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution.
- 4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
- 5. Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.
- 6. Explain how an author develops the point of view of the narrator or speaker in a text.
- 7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.
- 8. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.

- 9. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
- 10. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- 11. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- 12. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).
- 13. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
- 14. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
- 15. Determine an author's point of view or purpose in a text and explain now it is conveyed in the text.
- 16. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
- 17. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
- 18. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).
- 19. By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.
- 20. Cite specific textual evidence to support analysis of primary and secondary sources.
- 21. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- 22. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
- 23. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- 24. Describe how a text presents information (e.g., sequentially, comparatively, causally).
- 25. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
- 26. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- 27. Distinguish among fact, opinion, and reasoned judgment in a text.
- 28. Analyze the relationship between a primary and secondary source on the same topic.
- 29. By the end of grade 8, read and comprehend history/social studies texts in the grades 6-8 text complexity band independently and proficiently.
- 30. Cite specific textual evidence to support analysis of science and technical texts.
- 31. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

- 32. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
- 33. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6-8 texts and topics.
- 34. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.
- 35. Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.
- 36. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).
- 37. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.
- 38. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
- 39. By the end of grade 8, read and comprehend science/technical texts in the grades 6-8 text complexity band independently and proficiently.

Reading: Writing/Language

- 1. Write arguments to support claims with clear reasons and relevant evidence.
 - •a. Introduce claim(s) and organize the reasons and evidence clearly.
 - •b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
 - •c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
 - •d. Establish and maintain a formal style.
 - •e. Provide a concluding statement or section that follows from the argument presented.
- Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
 - •a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
 - •b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
 - •c. Use appropriate transitions to clarify the relationships among ideas and concepts.
 - •d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
 - •e. Establish and maintain a formal style.
 - •f. Provide a concluding statement or section that follows from the information or explanation presented.
- Write narratives to develop real or imagined experiences or events using
 effective technique, relevant descriptive details, and well-structured event
 sequences.

- •a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
- •b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
- •c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
- •d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
- •e. Provide a conclusion that follows from the narrated experiences or events.
- 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
- 5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- 6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.
- 7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
- 8. Gather relevant information from multiple print and digital sources; assess the credibility of each source and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
- 9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
 - •a. Apply grade 6 Reading standards to literature (e.g., Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics).
 - •b. Apply grade 6 Reading standards to literary nonfiction (e.g., Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not).
- 10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
- 11. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
 - •a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
 - •b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
 - •c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
 - •d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

- 12. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
- 13. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.
- 14. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
- 15. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
- 16. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
- 17. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
 - •a. Ensure that pronouns are in the proper case (subjective, objective, possessive).
 - •b. Use intensive pronouns (e.g., myself, ourselves).
 - •c. Recognize and correct inappropriate shifts in pronoun number and person.
 - •d. Recognize and correct vague pronouns (l.e., ones with unclear or ambiguous antecedents).
 - •e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.
- 18. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
 - •a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.
 - •b. Spell correctly.
- 19. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
 - •a. Vary sentence patterns for meaning, reader/listener interest, and style.
 - •b. Maintain consistency in style and tone.
- 20. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
 - •a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
 - •b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible).
 - •c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
 - •d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
- 21. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
 - •a. Interpret figures of speech (e.g., personification) in context.
 - •b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.

- •c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).
- 22. Acquire and use accurately grade-appropriate general academic and domainspecific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Mathematics

- Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak."
 "For every vote candidate A received, candidate C received nearly three votes."
- 2. Understand the concept of a unit rate a/b associated with a ratio a:b with b? 0, and use rate language in the context of a ratio relationship. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger."
- 3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
 - •a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
 - •b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?
 •c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means
 - •c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
 - •d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
- 4. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3)/(3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3)/(3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b)/(c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?
- 5. Fluently divide multi-digit numbers using the standard algorithm.
- 6. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
- 7. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use

- the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 + 2).
- 8. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
- Understand a rational number as a point on the number line. Extend number line
 diagrams and coordinate axes familiar from previous grades to represent points
 on the line and in the plane with negative number coordinates.
 - •a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., -(-3) = 3, and that 0 is its own opposite.
 - •b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
 - •c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
- 10. Understand ordering and absolute value of rational numbers.
 - •a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right.
 - •b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write -3 C > -7 C to express the fact that -3 C is warmer than -7 C.
 - •c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write |-30| = 30 to describe the size of the debt in dollars.
 - •d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.
- 11. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
- 12. Write and evaluate numerical expressions involving whole-number exponents.
- 13. Write, read, and evaluate expressions in which letters stand for numbers.•a. Write expressions that record operations with numbers and with letters
 - standing for numbers. For example, express the calculation Subtract y from 5 as 5
 - •b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.

- •c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length s = 1/2.
- 14. Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6(4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.
- 15. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.
- 16. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- 17. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- 18. Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q and x are all nonnegative rational numbers.
- 19. Write an inequality of the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form x > c or x < c have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
- 20. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.
- 21. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
- 22. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = I whand V = b h to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

- 23. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
- 24. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
- 25. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am !?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.
- 26. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- 27. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
- 28. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
- 29. Summarize numerical data sets in relation to their context, such as by:
 - •a. Reporting the number of observations.
 - •b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
 - •c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
 - •d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Science - A Biblical worldview of science is integrated throughout the year emphasizing God as the creator and sustainer of the universe.

- 1. Generate questions, conduct investigations, and develop solutions to problems through reasoning and observation.
- 2. Analyze and present findings that lead to future questions, research, and investigations.
- 3. Apply scientific knowledge to new and different situations. Analyze evidence that guides decision-making and applies science throughout history and within society.
- 4. Classify producers, consumers, and decomposers based on their source of food (the source of energy and building materials). *
- 5. Distinguish between the ways in which consumers and decomposers obtain energy.
- 6. Recognize that all organisms are composed of cells (single cell organisms, multicellular organisms).
- 7. Explain how cells make up different body tissues, organs, and organ systems.
- 8. Describe how cells in all multicellular organisms are specialized to take in nutrients, which they use to provide energy for the work that cells do and to make the materials that a cell or organism needs.
- 9. Recognize that cells function in a similar way in all organisms.

- Describe growth and development in terms of increase of cell number and/or cell size.
- 11. Examine how through cell division, cells can become specialized for specific functions.
- 12. Recognize the need for light to provide energy for the production of carbohydrates, proteins and fats.
- 13. Explain that carbon dioxide and water are used to produce carbohydrates, proteins, and fats.
- 14. Describe evidence that plants make, use and store food.
- 15. Compare how characteristics of living things are passed on through generations, both asexually and sexually.
- 16. Compare and contrast the advantages and disadvantages of sexual vs. asexual reproduction.
- 17. Evaluate the uncertainties or validity of scientific conclusions using an understanding of sources of measurement error, the challenges of controlling variables, accuracy of data analysis, logic of argument, logic of experimental design, and/or the dependence on underlying assumptions.
- 18. Conduct scientific investigations using appropriate tools and techniques (e.g., selecting an instrument that measures the desired quantity-length, volume, weight, time interval, temperature-with the appropriate level of precision).
- 19. Design and conduct a systematic scientific investigation that tests a hypothesis. Draw conclusions from data presented in charts or tables.
- 20. Develop an understanding of a scientific concept by accessing information from multiple sources. Evaluate the scientific accuracy and significance of the information.
- 21. Explain the progression of ideas and explanations that leads to science theories that are part of the current scientific consensus or core knowledge.
- 22. Distinguish between living and nonliving systems. (prerequisite)
- 23. Explain the importance of both water and the element carbon to cells. (prerequisite)
- 24. Describe growth and development in terms of increase in cell number, cell size, and/or cell products. (prerequisite)
- 25. Explain how the systems in a multicellular organism work together to support the organism. (prerequisite)
- 26. Compare and contrast how different organisms accomplish similar functions (e.g., obtain oxygen for respiration, and excrete waste). (prerequisite)
- 27. Describe how organisms sustain life by obtaining, transporting, transforming, releasing, and eliminating matter and energy. (prerequisite)
- 28. Describe the effect of limiting food to developing cells. (prerequisite)
- 29. Explain the significance of carbon in organic molecules. (prerequisite)
- 30. Explain the origins of plant mass. (prerequisite)
- 31. Predict what would happen to plants growing in low carbon dioxide atmospheres. (prerequisite)
- 32. Explain how the roots of specific plants grow. (prerequisite)
- 33. Classify different organisms based on how they obtain energy for growth and development. (prerequisite)
- 34. Explain how an organism obtains energy from the food it consumes. (prerequisite)
- 35. Recognize the six most common elements in organic molecules (C, H, N, O, P, S). (prerequisite)

- 36. Identify the most common complex molecules that make up living organisms. (prerequisite)
- 37. Predict what would happen if essential elements were withheld from developing cells. (prerequisite)
- 38. Explain how cells transform energy (ultimately obtained from the sun) from one form to another through the processes of photosynthesis and respiration. Identify the reactants and products in the general reaction of photosynthesis.
- 39. Compare and contrast the transformation of matter and energy during photosynthesis and respiration.
- 40. Explain cell division, growth, and development as a consequence of an increase in cell number, cell size, and/or cell products.
- 41. Describe how, through cell division, cells can become specialized for specific function.
- 42. Describe how energy is transferred and transformed from the Sun to energy-rich molecules during photosynthesis.
- 43. Relate plant structures and functions to the process of photosynthesis and respiration.
- 44. Relate cell parts/organelles to their function.
- 45. Recognize that, and describe how, human beings are part of Earth's ecosystems. Note that human activities can deliberately or inadvertently alter the equilibrium in ecosystems. (prerequisite)
- 46. Describe how organisms acquire energy directly or indirectly from sunlight.
- 47. Illustrate and describe the energy conversions that occur during photosynthesis and respiration.
- 48. Summarize the process of photosynthesis.
- 49. Identify how energy is stored in an ecosystem.
- 50. Use a food web to identify and distinguish producers, consumers, and decomposers and explain the transfer of energy through trophic levels.
- 51. Describe environmental processes (e.g., the carbon and nitrogen cycles) and their role in processing matter crucial for sustaining life.
- 52. Describe ecosystem stability. Understand that if a disaster such as flood or fire occurs, the damaged ecosystem is likely to recover in stages of succession that eventually result in a system similar to the original one.
- 53. Describe the greenhouse effect and list possible causes.
- 54. List the possible causes and consequences of global warming.
- 55. Graph changes in population growth, given a data table.
- 56. Explain the influences that affect population growth.
- 57. Predict the consequences of an invading organism on the survival of other organisms.

Social Studies

- 1. Use historical perspective to analyze global issues faced by humans long ago and today.
- 2. Describe how geographers use mapping to represent places and natural and human phenomena in the world.
- 3. Draw a sketch map from memory of the Western Hemisphere showing the major regions (Canada, United States, Mexico, Central America, South America, and Caribbean).

- 4. Explain why maps of the same place may vary, including cultural perspectives of the Earth and new knowledge based on science and modern technology.
- 5. Use observations from air photos, photographs (print and CD), films (VCR and DVD) as the basis for answering geographic questions about the human and physical characteristics of places and regions.
- 6. Use information from modern technology such as Geographic Positioning System (GPS), Geographic Information System (GIS), and satellite remote sensing to locate information and process maps and data to analyze spatial patterns of the Western Hemisphere to answer geographic questions.
- 7. Apply the skills of geographic inquiry (asking geographic questions, acquiring geographic information, organizing geographic information, analyzing geographic information, and answering geographic questions) to analyze a problem or issue of importance to a region of the Western Hemisphere.
- 8. Use the fundamental themes of geography (location, place, human environment interaction, movement, region) to describe regions or places on earth.
- 9. Explain the locations and distributions of physical and human characteristics of Earth by using knowledge of spatial patterns.
- 10. Explain the different ways in which places are connected and how those connections demonstrate interdependence and accessibility.
- 11. Identify factors that contribute to conflict and cooperation between and among cultural groups (control/use of natural resources, power, wealth, and cultural diversity).
- 12. Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change (e.g., drought in northern Mexico, disappearance of forest vegetation in the Amazon, natural hazards and disasters from volcanic eruptions in Central America and the Caribbean and earthquakes in Mexico City and Colombia).
- 13. Give examples of how countries work together for mutual benefits through international organizations (e.g. North American Free Trade Agreement (NAFTA), Organization of American States (OAS), United Nations (UN)).
- 14. Explain and compare how economic systems (traditional, command, and market) answer four basic questions: What should be produced? How will it be produced? How will it be distributed? Who will receive the benefits of production? (e.g., compare United States and Cuba, or Venezuela and Jamaica.)
- 15. Describe how geographers use mapping to represent places and natural and human phenomena in the world.
- 16. Locate the major landforms, rivers (Amazon, Mississippi, Missouri, Colorado), and climate regions of the Western Hemisphere.
- 17. Describe the landform features and the climate of the region (within the Western or Eastern Hemispheres) under study.
- 18. Account for topographic and human spatial patterns (where people live) associated with tectonic plates such as volcanoes, earthquakes, settlements (Ring of Fire, recent volcanic and seismic events, settlements in proximity to natural hazards in the Western Hemisphere) by using information from GIS, remote sensing, and the World Wide Web.
- 19. Explain that communities are affected positively or negatively by changes in technology (e.g., Canada with regard to mining, forestry, hydroelectric power generation, agriculture, snowmobiles, cell phones, air travel).

- 20. Identify ecosystems and explain why some are more attractive for humans to use than are others (e.g., mid-latitude forest in North America, high latitude of Peru, tropical forests in Honduras, fish or marine vegetation in coastal zones).
- 21. Explain how historians use a variety of sources to explore the past (e.g., artifacts, primary and secondary sources including narratives, technology, historical maps, visual/mathematical quantitative data, radiocarbon dating, DNA analysis).
- 22. Identify the point of view (perspective of the author) and context when reading and discussing primary and secondary sources.
- 23. Compare and evaluate competing historical perspectives about the past based on proof.
- 24. Describe the early migrations of people among Earth's continents (including the Berringa Land Bridge).
- 25. Examine the lives of hunting and gathering people during the earliest eras of human society (tools and weapons, language, fire).
- 26. Use data to create thematic maps and graphs showing patterns of population, physical terrain, rainfall, and vegetation, analyze the patterns and then propose two generalizations about the location and density of the population.
- 27. Describe the human characteristics of the region under study (including languages, religion, economic system, governmental system, cultural traditions).
- 28. Describe patterns of settlement by using historical and modern maps (e.g., coastal and river cities and towns in the past and present, locations of megacities modern cities over 5 million, such as Mexico City, and patterns of agricultural settlements in South and North America).
- 29. Describe the environmental effects of human action on the atmosphere (air), biosphere (people, animals, and plants), lithosphere (soil), and hydrosphere (water) (e.g., changes in the tropical forest environments in Brazil, Peru, and Costa Rica).
- 30. Explain the challenges to governments and the cooperation needed to address international issues in the Western Hemisphere (e.g., migration and human rights).
- 31. Describe the impact of governmental policy (sanctions, tariffs, treaties) on that country and on other countries that use its resources.
- 32. Identify the role of the individual in history and the significance of one person's ideas.
- 33. Describe and use cultural institutions to study an era and a region (political, economic, religion/ belief, science/technology, written language, education, family).
- 34. Describe and use themes of history to study patterns of change and continuity.
- 35. Use historical perspective to analyze global issues faced by humans long ago and today.
- 36. Identify and explain examples of cultural diffusion within the Americas (e.g., baseball, soccer, music, architecture, television, languages, health care, Internet, consumer brands, currency, restaurants, international migration).
- 37. List and describe the advantages and disadvantages of different technologies used to move people, products, and ideas throughout the world (e.g., call centers in the Eastern Hemisphere that service the Western Hemisphere; the United States and Canada as hubs for the Internet; transport of people and perishable products; and the spread of individuals' ideas as voice and image messages on electronic networks such as the Internet).

- 38. Explain how and why ecosystems differ as a consequence of differences in latitude, elevation, and human activities (e.g., South America's location relative to the equator, effects of elevations on temperature and growing season, proximity to bodies of water and the effects on temperature and rainfall, effects of annual flooding on vegetation along river flood plains such as the Amazon).
- 39. Describe how variations in technology affect human modifications of the landscape (e.g., clearing forests for agricultural land in South America, fishing in the Grand Banks of the Atlantic, expansion of cities in South America, hydroelectric developments in Canada, Brazil and Chile, and mining the Kentucky and West Virginia).
- 40. Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places (e.g., cutting forests in one region may result in river basin flooding elsewhere; building a dam floods land upstream and may permit irrigation in another region).
- 41. Contemporary Investigations Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.
- 42. Explain the geopolitical relationships between countries (e.g., petroleum and arms purchases in Venezuela and Ecuador; foreign aid for health care in Nicaragua).
- 43. Diagram or map the movement of a consumer product from where it is manufactured to where it is sold to demonstrate the flow of materials, labor, and capital (e.g., global supply chain for computers, athletic shoes, and clothing).
- 44. Cite specific textual evidence to support analysis of primary and secondary sources.
- 45. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- 46. Identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered).
- 47. Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- 48. Describe how a text presents information (e.g., sequentially, comparatively, causally).
- 49. Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).
- 50. Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- 51. Write arguments focused on discipline-specific content.
- 52. Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
- 53. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
- 54. Draw evidence from informational texts to support analysis reflection, and research.
- 55. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

World Language

The students will receive 33 weeks of instruction in the following languages: Spanish, German, and French. These classes are taught by certified world language instructors.

Special Classes

Sixth grade students will receive instruction in the following special classes:

- 1. World Language (11 weeks each of French, German, and Spanish)
- 2. Art
- 3. Music
- 4. Physical Education
- 5. Chapel
- 6. Library

Computer Education

Our students will receive age appropriate keyboarding instruction from our computer specialist. Grades 2-6 will also enjoy educational instruction, utilizing the internet (parent permission required). PCA has a limited access plan for students with Cyber Proxy Protection. All internet lessons are teacher supervised.