

# **Christ the King Catholic School**

## **Sixth Grade Curriculum**

### **Religion**

Students will . . .

- Discuss creation stories in Scripture and the human role in caring for God's creation.
- Analyze Old Testament Scriptures and identify Jesus as the fulfillment of the Old Testament covenant.
- Understand the structure of the Bible, locate passages, and identify various literary forms in Scripture.
- Explain the meaning of "covenant" in human experience and the special meaning of "covenant" between God and His people.
- Identify the patriarchs, prophets, and kings in the Old Testament and describe their contributions to our faith.
- Exhibit an appreciation of the Bible as the inspired Word of God and apply biblical lessons to their lives.
- Utilize a variety of prayer forms and demonstrate a commitment to prayer.
- Apply positive values regarding God's gift of human sexuality.
- Express that Jesus is the one who freed us from sin and death and will give us new life in the Kingdom of Heaven.
- Recognize that the Old Testament reveals the concepts of everlasting life, the coming of Jesus, resurrection, the Communion of Saints, and the Trinity.

- Realize the importance of the order of the Mass and actively participate in, and prepare for liturgical celebrations.
- Show respect and love for all people in God's Global Village, and lovingly participate in mission and outreach experiences toward God's people.
- Possess and appreciation for how our faith journey mirrors the journey of God's chosen people in the Old Testament.

## **Reading**

Students will:

- Use context clues, prior knowledge, and inferences to determine word meaning.
- Identify main ideas and supporting details.
- Demonstrate grade appropriate comprehension and critical thinking skills.
- Apply appropriate reading rate to material being read.
- Identify the characters of fiction and non-fiction.
- Identify and appreciate different forms of literature – short stories, novels, poetry, folklore, and historical fiction.
- Apply and demonstrate reading skills and strategies in independent reading.
- Distinguish and interpret different literary genres.
- Apply knowledge of literary terminology.
- Apply appropriate use of reference materials and technology.
- Identify and analyze figurative language.
- Identify and demonstrate appropriate use of a variety of study skills.

# **English**

Content Area:

- Eight parts of speech
- Form and function of sentences
- Paragraph structure
- Punctuation and capitalization
- Diagramming and labeling sentences
- Creative and expository writing
- Research skills
- Vocabulary
- Current Events
- Oral presentations

# **Math**

## **Number and Operations**

Students will . . .

- Compare and order integers, positive rationals, and percents, including finding their approximate location on a number line.
- Recognize and generate equivalent forms of fractions, decimals and percents.
- Recognize equivalent representations for the same number and generate them by decomposing and composing numbers, including expanded notation and exponential notation.
- Use factors and multiples to describe relationships between and among numbers, including whole number common factors and multiples.

- Describe the effects of addition and subtraction on fractions and decimals.
- Add and subtract positive rational numbers.
- Estimate and justify the results of addition and subtraction of positive rational numbers.
- Solve problems using equivalent ratios.

### **Algebraic Relationships**

Students will . . .

- Represent and describe patterns with tables, graphs, pictures, symbolic rules or words.
- Compare various forms of representations to identify a pattern.
- Identify functions as linear or nonlinear from a table or graph.
- Use variables to represent unknown quantities in expressions.
- Recognize equivalent forms for simple algebraic expressions (associative, distributive properties)
- Model and solve problems, using multiple representations such as graphs, tables, expressions and equations.
- Compare situations with constant or varying rates of change.

### **Geometric and Spatial Relationships**

Students will . . .

- Identify the properties of 1, 2, and 3 dimensional shapes using the appropriate geometric vocabulary.

- Describe relationships between the corresponding angles and the length of corresponding sides of similar triangles (whole number scale factors).
- Use coordinate geometry to construct geometric shapes.
- Describe the transformation from a given pre-image to its image using the terms: reflection, rotation and translation.
- Create polygons and designs with rotational symmetry.
- Draw or use visual models to represent and solve problems.

## **Measurement**

Students will . . .

- Identify and justify an angle as acute, obtuse, straight or right.
- Solve problems involving elapsed time (hours and minutes).
- Estimate a measurement using either standard or non-standard units of measurement.
- Use tools to measure angles to the nearest degree.
- Describe how to solve problems involving the area or perimeter of polygons.
- Convert from one unit to another within a system of measurement (distance, mass and capacity)

## **Data and Probability**

Students will . . .

- Formulate questions, design studies and collect data about a characteristic.
- Interpret circle graphs; create and interpret stem-and-leaf plots.

- Find the range and measures of center, including median, mode and mean.
- Compare different representations of the same data and evaluate how well each representation shows important aspects of the data.
- Use observations about differences between 2 samples to make conjectures about the populations from which the samples were taken.

## **Science**

### **Matter and Energy**

Students will . . .

- Recognize matter is anything that has mass and volume
- Describe and compare the volumes of objects or substances directly, using a graduated cylinder, and/or indirectly, using displacement methods.
- Describe and compare the masses of objects to the nearest gram using a balance
- Recognize evidence that supports the theory that matter is composed of small particles that are in constant, random motion.
- Describe the relationship between temperature and the movement of atmospheric gases.
- Recognize the Sun is the source of almost all energy used to produce the food for living organisms.

## **Living Organisms**

Students will . . .

- Describe the common life processes necessary to the survival of organisms (i.e. growth, reproduction, response to stimuli, energy use, exchange of gases, use of water, elimination of waste.)
- Recognize plants use energy from the Sun to produce food and oxygen through the process of photosynthesis.

## **Ecology**

Students will . . .

- Identify the biotic factors and abiotic factors that make up an ecosystem.
- Identify populations within a community that are in competition with one another for resources.
- Recognize the factors that affect the number and types of organisms an ecosystem can support.
- Predict the possible effects of changes in the number and types of organisms in an ecosystem on the populations of other organisms within that ecosystem.
- Describe beneficial and harmful activities of organisms, including humans and explain how these activities affect organisms within an ecosystem.
- Predict the impact of a natural environmental change on the organisms in an ecosystem.
- Describe possible solutions to potentially harmful environmental changes within an ecosystem.

- Diagram and describe the transfer of energy in an aquatic food web and a land food web with reference to producers, consumers, decomposers, scavengers, and predator/prey relationships.
- Classify populations of unicellular and multi-cellular organisms as producers, consumers, and decomposers by the role they serve in the ecosystem.
- Relate examples of adaptations within a species to its ability to survive in a specific environment.
- Predict how certain adaptations, such as behavior, body structure, or coloration, may offer a survival advantage to an organism in a particular environment.

## **Earth's Systems**

Students will . . .

- Observe and describe the breakdown of plant and animal material into soil through decomposition processes (i.e. decay, rotting, composting, digestion)
- Identify the ways humans affect erosion and deposition of Earth's materials.
- Propose ways to solve simple environmental problems (e.g. recycling, composting) that result from human activity.
- Describe the components of soil and other factors that influence the soil texture, fertility and resistance to erosion. (e.g. plant roots and debris, bacterial, fungi, worms)

- Recognize the properties of water that make an essential component of the Earth system (e.g. its ability to act as a solvent, its ability to remain as a liquid at most Earth temperatures)
- Identify events (earthquakes, volcanic eruptions) and the landforms created by them on the Earth's surface that occur at different plate boundaries.
- Explain convection currents are the result of uneven heating inside the mantle resulting in the melting of rock materials, convection of magma, eruption/flow of magma and the movement of crustal plates.
- Explain how rock layers are affected by the folding, breaking and uplifting of rock layers due to plate motion.
- Describe how the movement of crustal plates can cause earthquakes and volcanic eruptions that can result in mountain building and trench formation.
- Relate the comparative amounts of fresh water and salt water on the earth to the availability of water as a resource for living organisms and human activity.
- Describe the affect of human activities (e.g. landfills, use of fertilizers and herbicides, framing, septic systems) on the quality of water.
- Analyze the ways humans affect the erosion and deposition of soil and rock materials.

### **Scientific Inquiry**

Students will . . .

- Formulate testable questions and hypotheses

- Recognize the importance of the independent variable, dependent variables, control of constants, and multiple trials to the design of a valid experiment.
- Design and conduct a valid experiment.
- Evaluate the design of an experiment and make suggestions for reasonable improvements or extensions of an experiment.
- Recognize different kinds of questions suggest different kinds of scientific investigations.
- Make qualitative observations using the five senses.
- Determine the appropriate tools and techniques to collect data.
- Use a variety of tools and equipment to gather data (e.g. microscopes, thermometers, computers, balances, metric rulers, graduated cylinders, stopwatches)
- Measure length to the nearest millimeter, mass to the nearest gram, volume to the nearest milliliter, temperature to the nearest degree Celsius, and time to the nearest second.
- Judge whether measurements and computation of quantities are reasonable.
- Use quantitative and qualitative data as support for reasonable explanations (conclusions).
- Use data as support for observed patterns and relationships and to make predictions to be tested.
- Recognize the possible effects of errors in observations, measurements, and calculations on the formulation of explanations (conclusions).
- Evaluate the reasonableness of an explanation (conclusion).

- Analyze whether evidence (data) and scientific principles support proposed explanations (hypotheses, laws, theories).
- Communicate the procedures and results of investigations and explanations through:
  - oral presentations
  - drawings and maps
  - data tables
  - graphs
  - writings

## **Science and Technology**

Students will . . .

- Explain how technological improvements, such as those developed for use in space exploration, the military, or medicine, have led to the invention of new products that may improve lives here on Earth (e.g. new materials, freeze-dried foods, infrared goggles, Velcro satellite imagery, robotics, lasers).
- Identify the link between technological developments and the scientific discoveries made possible through their development (e.g. Hubble telescope and stellar evolution, composition and structure of the universe, the electron microscope and cell organelles, sonar and the composition of the Earth; manned and unmanned space missions and space exploration; Doppler radar and weather conditions; MRI and CAT-scans and brain activity).
- Describe how technological solutions to problems can have both benefits and drawbacks.

- Describe how the contributions of scientists and inventors have contributed to science, technology and human activity.
- Recognize the difficulty science innovators experience as they attempt to break through accepted ideas of their time to reach conclusions that may lead to changes in those ideas and serve to advance scientific understanding.
- Identify and evaluate the physical, social, economic and/or environmental problems that may be overcome using science and technology.

## **Social Studies**

### Content Area: World History

10,000 BC First Cultures

Fertile Crescent

9000 BC Nile River Valley (Egypt)

Indus River Valley (India)

Huang He Valley (China)

2000 BC Ancient Greece

800 BC Ancient Rome

Ancient Americas

Arab World

African Civilizations

1200 AD Middle Ages (Europe)

1500 AD Technology & Expansion (Industrial Revolution)

World Revolutions

Imperialism

1900 AD    World Wars I & II  
              Spread of Independence