

Christ the King Catholic School

Seventh Grade Curriculum

Religion

Students will:

- Express a basic understanding of Jesus' life and teachings.
- Recognize the importance of a personal relationship with Christ through prayer, preparation, and active participation in the celebration of the Eucharist.
- Gain a deeper understanding of who Jesus is.
- Show love and respect for all people in God's Global Village, and lovingly participate in mission outreach experiences toward God's people.
- Identify and apply positive values regarding God's gift of human sexuality.
- Know what it means to follow Jesus in daily life.
- Understand the human relationship with God and the values needed in order to reveal the Kingdom of God to other people.
- Demonstrate an understanding that as Catholics they are to model their lives after Jesus and recognize their own call to discipleship.
- Develop an understanding of the Paschal mystery.
- Realize what it means to be open to the call of the Holy Spirit and be witnesses of the message of Christ in the world today.
- Possess a greater appreciation for Jesus' presence in their lives.

- Proclaim their commitment to full membership in the Church, especially through the reception of the sacrament of Confirmation.
- Describe how the Law of Love is the cornerstone of all Christian teaching.

Reading

Students will . . .

- Recognize and analyze different literary genres: short stories, novels, mythology, non-fiction, plays and poetry.
- Use context clues, prior knowledge, and inferences to determine vocabulary meaning.
- Identify main ideas and supporting details.
- Demonstrate grade appropriate comprehension and critical thinking skills.
- Analyze the characteristics of fiction and non-fiction.
- Recognize and use literary terminology.
- Recognize and interpret figurative language.
- Apply and demonstrate reading skills and strategies in independent reading.
- Appropriately use reference materials and technology.
- Identify and appropriately use a variety of study skills.

English

Content Area:

- Eight parts of speech

- Punctuation and capitalization
- Sentences (simple, compound, complex)
- Paragraph Structure
- Writing Process (brainstorming, drafting, revising, editing, publishing)
- Outlining
- Vocabulary
- Current Events
- Types of Writing (narrative, descriptive, expository, persuasive, creative)

Math

Students will . . .

- Solve various types of math problems – decimals, fractions, equations, integers.
- Solve problems in various ways.
- Apply problem solving strategies with accuracy.
- Apply knowledge to multi-step and more involved equations.
- Apply math skills to daily life.
- Use metric and customary measurement accurately.
- Analyze and use data.

Content Skills:

Accurate Computation

Whole Numbers and Operations

Fractions

Ratios, Rates and Proportions

Decimals and Percents

Integers

Geometry

Calculator

Science

Matter and Energy

Students will . . .

- Classify the types of matter in an object into pure substances or mixtures using their specific physical properties.
- Describe the physical and chemical properties (e.g. magnetic attraction, conductivity, melting point and boiling point, reactivity) of pure substances
- Describe the properties of each component in a mixture/solution and their distinguishing properties (e.g. salt water, oil and vinegar) Using the Kinetic Theory model, illustrate and account for the physical properties of a solid, liquid or gas in terms of the arrangement and motion of molecules in a substance.
- Use the Kinetic Theory model to explain changes in the volume, shape and viscosity of materials in response to temperature changes during a phase change.
- Predict the effect of transfer on the physical properties of a substance as it changes to or from a solid liquid or gas.

- Describe appropriate ways to separate the components of different types of mixtures (sorting, evaporation, filtration, magnets, boiling)
- Predict how various solids (soluble/insoluble) behave when mixed with water.
- Describe the relationship between the change in the volume of water and changes in temperature as it relates to the properties of water (i.e. water expands and becomes less dense when frozen).
- Recognize and classify changes in matter as chemical and/or physical.
- Identify chemical changes (i.e. rusting, decaying, oxidations, decomposition by acids) in common objects (rocks, minerals, plants) as a result of interactions with sources of energy or other matter that form new substances with different characteristic properties.
- Identify physical changes in common objects (e.g. rocks minerals, plants) and describe the processes which caused the change (e.g. weathering, erosion, cutting, dissolving)
- Demonstrate and provide evidence that mass is conserved during a physical change.
- Describe how sound energy is transferred by wave-like disturbances that spread away from the source through a medium.
- Predict how the properties of the medium affect the speed of different types of mechanical waves.

- Recognize thermal energy as the random motion (kinetic energy) of molecules or atoms within a substance.
- Use the kinetic molecular model to explain changes in the temperature of a material.
- Recognize thermal energy is transferred as heat from warmer objects to cooler objects until both reach the same temperature (equilibrium).
- Identify solar radiation as the primary source of energy for weather phenomena.

Force and Motion

Students will . . .

- Recognize every object exerts a gravitational force of attraction on every other object.
- Recognize an object's weight is a measure of the gravitational force of a planet/moon acting on that object.
- Compare the amount of gravitational force acting between objects (which is dependent upon their masses and the distance between them).
- Compare the effects of balanced and unbalanced forces (including magnetic, gravity, friction, push or pull) on an object's motion.
- Explain that when forces are balanced, objects are at rest or their motion remains constant.
- Explain how the acceleration of a moving object is affected by the amount of net force applied and the mass of the object.

Living Organisms

Students will . . .

- Compare and contrast the following plant and animal cell structures; cell membrane, nucleus, cell wall, chloroplast and cytoplasm.
- Recognize the chloroplast as the cell structure where food is produced in plants and some unicellular organisms.
- Recognize the cell membrane helps regulate the transfer of materials in and out of the cell.
- Recognize the function of the chloroplast is photosynthesis.

Earth Systems

Students will . . .

- Identify and use appropriate tools (thermometer, anemometer, hygrometer) to collect weather data.
- Recognize and summarize relationships between weather data collected over a period of time.
- Describe the composition of the Earth's atmosphere and how it circulates air masses.
- Describe the role atmosphere plays in precipitation, reflecting and filtering light from the Sun and trapping heat energy emitted from the Earth's surface.
- Differentiate between weather and climate.
- Identify factors that affect climate (e.g. latitude, altitude, prevailing wind currents, amount of solar radiation).

- Explain how the differences in surface temperature, due to the different heating and cooling rates of water and soil, affect the temperature and movement of the air above.
- Recognize the characteristics of air masses (e.g. high/low barometric pressure, temperature) and predict their effect on the weather in a given location.
- Identify weather conditions associated with cold fronts and warm fronts.
- Identify factors that affect weather patterns in a particular region (e.g. proximity to a large body of water, latitude, altitude, prevailing wind currents, amount of solar radiation, mountain ranges).
- Recognize significant changes in temperature and barometric pressure may cause dramatic weather phenomena.

Universe

Students will . . .

- Classify celestial bodies in a solar system into categories: Sun, moon, planets and other small bodies based on physical properties.
- Compare and contrast the size, composition, atmosphere, and surface of the planets in our solar system and Earth's moon.
- Identify the relative proximity of common celestial bodies in the sky to Earth.
- Describe how the Earth's placement in the solar system is favorable to sustain life.

- Compare and contrast the characteristics of Earth that support life with the characteristics of other planets that are considered favorable or unfavorable to life.
- Recognize stars are separated from one another by vast and different distances, which causes stars to appear smaller than the Sun.
- Compare the distance light travels from the Sun to Earth to the distance light travels from other stars to Earth using light years.
- Relate the apparent east-to-west changes in the positions of the Sun, other stars and planets in the sky, over the course of a day to Earth's counterclockwise rotation about its axis.
- Describe the pattern that can be observed in the changes in number of hours of visible sunlight, and the time and location of sunrise and sunset throughout the year.
- Recognize, in the Northern Hemisphere, the Sun appears lower in the sky during the winter and higher in the sky during the summer.
- Recognize, in winter, the Sun appears to rise in the Southeast and set in the Southwest, and in summer, the Sun appears to rise in the Northeast and set in the Northwest accounting for a relatively long day length.
- Recognize the Sun is never directly overhead when observed from North America.
- Illustrate and explain a day as the time it takes a planet to make a full rotation about its axis.

- Diagram the path (orbital ellipse-almost a circle) the Earth travels as it revolves around the Sun.
- Illustrate and explain a year as the time it takes a planet to revolve around the Sun.
- Explain the relationships between a planet's length of year and its position in the solar system.
- Describe how the moon's relative position changes as it revolves around the Earth
- Recognize the phases of the moon are due to the relative positions of the Moon with respect to the Earth and Sun.
- Relate the axial tilt and orbital position of the Earth as it revolves around the Sun to the intensity of sunlight falling on different parts of the Earth during different seasons.
- Describe how the Earth's gravity pulls any object on or near the Earth toward it (including natural and artificial satellites).
- Describe how the planets' gravitational pull keeps satellites and moons in orbit around them.
- Describe how the Sun's gravitational pull holds the Earth and other planets in their orbits.

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 that 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.
- Measure length to the nearest millimeter, mass to the nearest tenth of a gram and volume to the nearest milliliter and time to the nearest second.
- Judge whether measurements and computation of quantities are reasonable.
- Calculate range, average/mean, median and mode of a set of data. Judge the suitability of these calculations for the intended analysis.
- 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

Social Studies

Content Area: American History

30,000-10,000 BC	Migration to the Americas
10,000 AD	First Civilizations of the Americas
1500	European discovery, exploration, and colonizing of the Americas
1600	The Thirteen English Colonies Turmoil in the Colonies
1700	The American Revolution Creating a republic
1800	A New Constitution Jeffersonian Age Industrial Revolution Westward Expansion North & South