## 4<sup>th</sup> Grade

## **Guidelines for Human Sexuality Education**

Based on the understanding that human sexuality education is a right and responsibility of parents, teachers whose curricular material includes human sexuality content are obligated to work together with parents to ensure that parents know what is being taught to their children and how it is being covered.

In grade 4, the curricular areas that address human sexuality education include:

Standard F – Humans as mammals.

Standard G – Respect for the human person from natural conception to natural death.

Please consult with your principal and/or pastor to determine the local directives on parental collaboration that are aligned with directives outlined in the May 4, 2011 letter from Bishop William Patrick Callahan. A copy of that letter can be found in the front pocket of this curriculum binder.

# Standard A

## Science Connections that reveal God's creations

DIOCESAN REQUIREMENTS	LOCAL LEVEL SCHOOL ELEMENTS								
CONCEPTS, SKILLS,	Text			Qu	arter	· / Date Taught			
& CATHOLIC FAITH CONNECTIONS	Alignment	1	2	3	4	Assessment			
1. Explain basic changes that occur over time in different areas of science.									
2. Study God's plan of systems, order, and organization. Discuss consistency and									
change.									
3. Classify behaviors of God's gift of living things as inherited or learned.									
4. Use measurement to describe and compare scientific objects and events.									
Look at evidence and models to explain events.									

#### **EMPHASIS & RESOURCES ACTIVITIES COMMON CORE STANDARDS Religious Emphasis:** A. Explain God's plan of renewing the earth Life Science Students are taught that God created a good and (erosion, the water cycle, earthquakes, volcanoes, Core Idea 1: Organisms have structures and ordered world that is discovered and studied in etc.). functions that facilitate their life processes, science class. Scientific study must respect growth, and reproduction. B. Using the ordered world God gave us, identify God's order and goodness. A. Structure and function different classifications of animals and plants. Students are taught that God created each B. Growth and development of organisms creature possessing its own particular goodness C. Explain God's plan of interdependence. How do Core Idea 3: Organisms and populations of and perfection. plants need animals and how do animals need organisms obtain necessary resources from Students are taught that there is a hierarchy of plants. their environment which includes other creatures that is expressed by the order of the 'six organisms and physical factors. days'. **Parent Involvement** A. Independent relationships in The human person is the summit of God's It is strongly recommended that all parents attend or view ecosystems creation and life needs to be respected from the presentation C. Ecosystems dynamics, stability, and (natural) conception to natural death, because all Growing In Love: resilience human persons are created in God's image which Fertility Appreciation Core Idea 4: Biological evolution explains between the 4<sup>th</sup> and 6<sup>th</sup> grade means they have inherent dignity. the unity and diversity of species. **Religious Resources: Prayer:** A. Evidence of common ancestry and CCC: 32 We know God through his creation Thank God for the good and ordered world He diversity **CCC**: 302 Creation is evolving created. B. Genetic variation within a species Thank God for His creation of Life and renew **B:** Genesis 1:31 All God created is good. C. Natural selection and adaptation B: Daniel 3:59-80 Nature will bless the Lord your commitment to respect life from natural D. Biodiversity and humans. **B:** Proverbs 19:21 God's purpose will prevail conception to natural death.

**CCC:** Catechism of the Catholic Church

**CC: Catechism Compendium RC:** Religion Curriculum B: Bible

Grade: 4	Subject: Science
Grade: 4	Subject: Science

# **Standard B**

The Nature of Science as created by God and discovered by man

# DIOCESAN REQUIREMENTS CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- 1. Using the gifts God gave you, plan an investigation and collect data using printed resources, human resources, technology, and/or field trips.
- 2. Use prior knowledge and experiences to make inferences or predict future events.
- 3. Read about a scientist who contributed to the history of the scientific world.

LOCAL LEVEL SCHOOL ELEMENTS							
Text		Quarter / Date Taught					
Alignment	1	2	3	4	Assessment		

EMPHASIS & RESOURCES	ACTIVITIES	COMMON CORE STANDARDS
Religious Emphasis:	A. Observe experiments and collect data using	Engineering and Technology
Students are taught that God created a good	the instruments invented by scientists.	Core Idea 2: Engineering design is a
and ordered world that is discovered and	B. Discuss how scientists help fulfill God's plan	creative and iterative process for
studied in science class.	regarding plants, animals, and all of nature.	identifying and solving problems in the
Religious Resources:	Parent Involvement	face of constraints.
CCC: 2293 Scientific research is to benefit	It is strongly recommended that all parents	A. Defining and researching
all	attend or view the presentation	technological problems
CCC: 2294 Protect the dignity of all while	Growing in Love:	B. Generating and evaluating solutions
performing scientific research	Fertility Appreciation	
	Between the 4 <sup>th</sup> and 6 <sup>th</sup> grade.	
CCC: 1955 Natural law helps us know what		
is good and what to avoid.	Prayer:	
CCC: 1956 Natural law expresses the	Remember to thank God for the gift of human	
dignity of all humans.	intelligence which is used in science to	
St. Albert the Great (Patron of Scientists)	investigate, predict, conclude, and create.	
St. Thomas Aquinas (Patron of Schools and		
Students)	Thank God for the scientists who have invented	
	tools to make our lives easier.	

**CCC:** Catechism of the Catholic Church

B: Bible

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**RC:** Religion Curriculum

Grade: 4 Subject: Science
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# **Standard C** Science Inquiry that reflects God's created order

# **DIOCESAN REQUIREMENTS** CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- Using the gifts God gave you, plan and conduct a simple experiment.
- 2. Write a brief description of what was observed in an experiment or scientific demonstration.
- 3. Support explanations of events or experiments with data collected.
- 4. Demonstrate the proper use of scientific equipment or science in answering questions (including microscopes, stop watches, graduated cylinders, etc.).

LOCAL LEVEL SCHOOL ELEMENTS								
Text		Quarter / Date Taught						
Alignment	1	2	3	4	Assessment			

EMPHASIS & RESOURCES	ACTIVITIES	COMMON CORE STANDARDS
Religious Emphasis:		
Scientific study must respect God's order and goodness.	A. Using God's gift of intelligence, collect data from observations, investigations, or experiments and report it truthfully.	Engineering and Technology Core Idea 1: The study of the designed world is the study of designed systems,
Students are taught that God created each creature possessing its own particular goodness and perfection.	Parent Involvement:  It is strongly recommended that all parents attend or view the presentation  Growing In Love:  Fertility Appreciation  between the 4 <sup>th</sup> and 6 <sup>th</sup> grade.	processes, materials, and products and of the technologies and the scientific principles by which they function.  A. Products, processes, and systems B. Nature of Technology C. Using Tools and Materials
Religious Resources:	Prayer:	Core Idea 2: Engineering design is a
CCC:: 2292-2295 Use research, experiments and inventions for good. Psalm 86:11 "A Prayer for Help"	Remember to thank God for our gift of intelligence to use the tools of science to answer questions.	creative and iterative process for identifying and solving problems in the face of constraints.  A. Defining and researching
John 8:31-32 "The Truth Will Set You Free"  Diocesan Virtues Program – Fortitude	Thank God for His created order of the world and our ability to appreciate and understand its goodness.	technological problems  B. Generating and evaluating solutions

**CCC:** Catechism of the Catholic Church

B: Bible

**CC: Catechism Compendium** 

**RC: Religion Curriculum** 

Grade: 4 Subject: Science
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# **Standard D**

Physical Science as created by God

## **DIOCESAN REQUIREMENTS** CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS Study the properties of matter and the changes in matter.

Text **Quarter / Date Taught** Alignment 2 3 Assessment

LOCAL LEVEL SCHOOL ELEMENTS

Study God's gifts of light, heat, magnetism, and electricity. Experiment with simple machines and God's laws of forces at work.

EMPHASIS & RESOURCES	ACTIVITIES	COMMON CORE STANDARDS
Religious Emphasis: Students are taught that God created a good and ordered world that is discovered and studied in science class. Scientific study must respect God's order and goodness. Students are taught that God created each creature possessing its own particular goodness and perfection.	A. Using God's gift of intelligence, study the effects of temperature on various objects. B. Combine and separate mixtures. C. Investigate the forms of energy God has given us. D. Identify simple machines and how they help society. E. Using God's plan, identify forces at work and where you will find these forces.	Physical Science: Core Idea 1: Macroscopic states and characteristic properties of matter depend on the type arrangement and motion of particles at the molecular and atomic scales. B: Properties of matter Core Idea 2: Forces due to fundamental interactions underlie all matter structures and transformations balance or imbalance of forces determines stability and change within all systems.
Religious Resources: CCC: 341 The beauty of the universe reflects the beauty of the creator. CCC: 1957 Natural law imposes limitations on research. B: Matt 8:23-27 Jesus calms the storm. B: John 6:16-21 Jesus walks on water. Exodus 1-14 Parting of the Red Sea.  Read about Dominican Theodore Frieburg (the first to give the correct explanation of the rainbow).	Parent Involvement It is strongly recommended that all parents attend or view the presentation Growing In Love: Fertility Appreciation between the 4 <sup>th</sup> and 6 <sup>th</sup> grade.  Prayer: Thank God for the gift of electricity to give us light, heat, and things to make our life convenient. Thank God for scientists who use the gifts God gave them to mix chemicals to create things we use every day to help us live.	A. Fundamental interactions B. Motion and stability C. Transformation of matter Core Idea 3: Transfers of energy within and between systems never change the  total amount of energy, but energy tends to become more dispersed; energy availability regulates what can occur in any process. A. Descriptions of energy B. Energy for life and practical use. The special role of food and fuel Relationship between energy and forces.

**CCC**: Catechism of the Catholic Church

**CC: Catechism Compendium** B: Bible **RC: Religion Curriculum** 

Grade: 4 Subject: Science

# **Standard E** Earth and Space Science as created by God

# DIOCESAN REQUIREMENTS CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- 1. Make a chart of different minerals and their properties created by God.
- 2. Name different types of soil found in Wisconsin.
- 3. Identify God's gift of natural resources in Wisconsin and describe their uses.
- 4. Investigate land related occupations commonly found in Wisconsin.
- 5. Study changes in the earth's surface land and oceans

LOCAL LEVEL SCHOOL ELEMENTS								
Text		Quarter / Date Taught						
Alignment	1	2	3	4	Assessment			

# EMPHASIS & RESOURCES Religious Emphasis: Students are taught that God created a second content of the content o

Students are taught that God created a good and ordered world that is discovered and studied in science class. Scientific study must respect God's order and goodness. Students are taught that God created each creature possessing its own particular goodness and perfection.

## **Religious Resources:**

**CCC**: 373 We are stewards of God's creation

RC: p21 #29 Stewardship

**B:** Ecclesiastes 3:1-8 A Time for

Everything

B: Psalm 104:19 Moon and Sun

**B:** Psalm 104:24-25 Earth creatures & ocean

Tell the story of St. Gregory the Wonder Worker (Patron of Floods and Earthquakes)

#### **ACTIVITIES**

- A. Study God's creation of the universe and identify objects found in the sky.
- B. Study God's creation of the Earth and identify Earth's minerals.
- C. Study God's gift of the wind and chart wind direction and wind speed.

#### **Parent Involvement**

It is strongly recommended that all parents attend or view the presentation *Growing In Love:*Fertility Appreciation between the 4<sup>th</sup> and 6<sup>th</sup> grade.

### **Prayer:**

Remember to thank God for our natural resources.

Remember to thank God for the gift of weather that makes living on Earth possible.

### COMMON CORE STANDARDS

### **Earth and Space Science**

Core Idea 1: Humans are a small part of a vast Universe; planet Earth is part of the Solar System which is part of the Milky Way galaxy, which is one of hundreds of billions of galaxies in the Universe.

- A. The Universe
- B. Gravity, energy, and matter in the Universe
- C. Earth and the Solar System Core Idea 2: Earth is a complex and dynamic 4.6billion-year-old system of rock, water, air, and life.
  - B. Earth's materials

Core Idea 3: Earth's surface continually changes from the cycling of water and rock driven by sunlight and gravity.

- A. The roles of water in Earth's surface processes.
- B. Formation and alteration of rocks and landforms
- C. Weather and climate
- D. Biogeology

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Grade: 4 Subject: Science
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## Standard F

## Life and Environmental Science as created by God

# DIOCESAN REQUIREMENTS CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- 1. Describe how God's gift of animals is classified into kingdoms, genus, and species.
- 2. Explain the characteristics of vertebrates and invertebrates and give examples of each.
- 3. Describe how God's gifts of plants are classified.
- 4. Investigate and report on God's plan for plants respond to internal cues (e.g. need for water) and external cues (e.g. changes in the God-given environment).
- 5. Describe human body systems (circulatory, digestive, skeletal, etc.) and their functions. The reproductive system is not covered in 4<sup>th</sup> grade.
- 6. Study God's gifts of ecosystems. Describe how ecosystems benefit plants and animals.

LOCAL LEVEL SCHOOL ELEMENTS							
Text	Quarter / Date Taught						
Alignment	1	2	3	4	Assessment		

EMPHASIS & RESOURCES	ACTIVITIES	COMMON CORE STANDARDS	
	A. Identify characteristics of organisms.	Life Science	
Religious Emphasis: Guidelines for Human Sexuality Education When teaching about mammals, emphasis should remain on the animal kingdom with only secondary and limited mention of humans as mammals  Religious Resources: CCC: 299 Creation is ordered and good CCC: 340 Creation is interdependent on other created things (sun & moon, earthworm & soil) CCC: 2415Humans care for God's creation B: 1Corinthians 6:13-20 Use your body for God's glory B: Acts 4:32-37 Believers share their possessions Tell the story of King Solomon for knowledge of animals/plants. Diocesan Virtues Program - Respect	<ul><li>B. Study the effect of the God-given environment on organisms.</li><li>C. Study God's plan for the life cycles of organisms.</li></ul>	Core Idea 1: Organisms have structures and functions that facilitate their life processes, growth, and reproduction.  A. Structure and function B. Growth and development of organisms C. Organization for matter and energy flow in organisms	
		Core Idea 3: Organisms and populations of organisms	
	Parent Involvement It is strongly recommended that all parents attend or view the presentation Growing In Love: Fertility Appreciation between the 4 <sup>th</sup> and 6 <sup>th</sup> grade.	obtain necessary resources from their environment which includes other organisms and physical factors.  A. Independent relationships in ecosystems B. Flow of matter and energy transfer in ecosystems C. Ecosystems dynamics, stability, and resilience Core Idea 4: Biological evolution explains the unity and diversity of species.	
	Prayer: Thank God for the animal kingdom and how it interacts within its classifications. Praise God for the beauty of plants.	<ul> <li>A. Evidence of common ancestry and diversity</li> <li>B. Genetic variation within a species</li> <li>C. Natural selection and adaptation</li> <li>D. Biodiversity and humans</li> </ul>	

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Grade: 4 Subject: Science

# Standard G

## Science Applications that reflect God's goodness

# DIOCESAN REQUIREMENTS CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- 1. Identify, describe and use simple machines alone and in combination to solve problems.
- 2. Discuss the use of modern technology and its implications as a social justice and moral issue.
- 3. Describe the impact of technology on Wisconsin workers and on the Godgiven environment.
- 4. Distinguish between natural objects made by God and man-made objects.

LOCAL LEVEL SCHOOL ELEMENTS							
Quarter / Date Taught							
1	2	3	4	Assessment			
			Qu	Quarter			

## **EMPHASIS & RESOURCES**

### **Religious Emphasis:**

Students are taught that God created a good and ordered world that is discovered and studied in science class. Scientific study must respect God's order and goodness. Students are taught that God created each creature possessing its own particular goodness and perfection. Students are taught that there is a hierarchy of creatures that is expressed by the order of the 'six days' from the less perfect to the more perfect. The human person is the summit of God's creation and life needs to be respected from (natural) conception to natural death.

### **Religious Resources:**

**CCC**: 2493 Use of media and communications to influence the public

**RC**: p21 #27 Share our gifts with others St. Stephen of Hungary ( Patron of Builders) Explorers – Fr. Marquette and Joliet

### **ACTIVITIES**

- A. Determine some God-given gifts necessary to invent and design machines to benefit humans.
- B. Use the gifts God gave you to solve an environmental problem.

#### **Parent Involvement**

It is strongly recommended that all parents attend or view the presentation *Growing In Love:*Fertility Appreciation between the 4<sup>th</sup> and 6<sup>th</sup> grade.

## **Prayer:**

Pray that we use technology in ways that benefit others.

Remember to thank God for giving us scientists that invent new machines to benefit our daily lives.

## COMMON CORE STANDARDS

## **Engineering and Technology**

Core Idea 1: The study of the designed world is the study of designed systems, processes, materials, and products and of the technologies and the scientific principles by which they function.

- A. Products, processes, and systems
- B. Nature of technology
- C. Using tools and materials Core Idea 2: Engineering design is a creative and iterative process for identifying and solving problems in the face of constraints.
  - A. Defining and researching technological problems
  - B. Generating and evaluating solutions
  - C. Optimizing and making tradeoffs

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Grade: 4 Subject: Science

# **Standard H** Personal, Social, and Moral Aspects of Science

# DIOCESAN REQUIREMENTS CONCEPTS, SKILLS, & CATHOLIC FAITH CONNECTIONS

- 1. Discuss stewardship of the environment and its ethical and moral implications.
- 2. Investigate and report on the "life cycle" of something that you own from its manufacturing to its disposal.
- 3. Determine the proper disposal of household items when they are no longer useful.
- 4. Give examples of substances that can help or hurt the body and how it functions (medicine, tobacco, alcohol).

LOCAL LEVEL SCHOOL ELEMENTS								
Text	Quarter / Date Taught							
Alignment	1	2	3	4	Assessment			

# EMPHASIS & RESOURCES Religious Emphasis:

Students are taught that God created a good and ordered world that is discovered and studied in science class. Scientific study must respect God's order and goodness. Students are taught that God created each creature possessing its own particular goodness and perfection.

## **Religious Resources:**

**CCC**: 293 All was created for the glory of God. CCC: 294 Creation communicates the goodness of God.

CCC 299 Creation is good.

CCC 340 Creation is interdependent on other creation.

RC: p21 #29 Stewardship

**B:** Paul's letter to 1 Corinthians 3:16-17 God's spirit lives in you.

Colossians 1:15-20 "Image of God" Blessed Kateri Tekakwitha (Patron of Environmentalists)

### **ACTIVITIES**

- A. Identify the things God gave us to keep ourselves safe and healthy.
- B. What technological things increase the safety and health of all people and what technological things decrease the health and safety of all people?
- C. What technological things change the environment for the better and what technological things change the environment for the worse?

#### **Parent Involvement**

It is strongly recommended that all parents attend or view the presentation

Growing In Love:

Fertility Appreciation between the 4<sup>th</sup> and 6<sup>th</sup> grade.

#### Praver:

Ask God for the ability to understand things that help or harm our body. Ask for help in making wise choices.

Thank God for the wisdom to be good stewards of our environment and to dispose of items in the best way for our environment.

#### **COMMON CORE STANDARDS**

#### **Life Science**

Core Idea 1: Organisms have structures and functions that facilitate their life processes, growth, and reproduction.

B. Growth and development of organisms

Core Idea 3; Organisms and populations of organisms obtain necessary resources from their environment which includes other organisms and physical factors.

- A. Independent relationships in ecosystems
- B. Flow of matter and energy transfer in ecosystems
- C. Ecosystems dynamics, stability, and resilience

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