

Our Language, Our Story: Curriculum Connections

Division: Junior

Subject: Mathematics

Strand: Patterning & Algebra

Overall Expectations

Grade 4	Grade 5	Grade 6
<ul style="list-style-type: none"> • describe, extend, and create a variety of numeric and geometric patterns, make predictions related to the patterns, and investigate repeating patterns involving reflections; • demonstrate an understanding of equality between pairs of expressions, using addition, subtraction, and multiplication. 	<ul style="list-style-type: none"> • determine, through investigation using a table of values, relationships in growing and shrinking patterns, and investigate repeating patterns involving translations; • demonstrate, through investigation, an understanding of the use of variables in equations. 	<ul style="list-style-type: none"> • describe and represent relationships in growing and shrinking patterns (where the terms are whole numbers), and investigate repeating patterns involving rotations; • use variables in simple algebraic expressions and equations to describe relationships.

Virtues and Themes: Possible Connections

<p>Theological Virtue: Faith Faith gives us a new way of seeing God, ourselves and everything around us.</p>	<p>Numeric and geometric patterns are found in nature (petal and leaf arrangements, relationships between animal features). Looking at these patterns leads us to reflect on the wonder of God's presence in creation.</p>
<p>Cardinal Virtue: Justice Justice is found in the character of persons who practice living in right relationship with God and neighbour.</p>	<p>When looking at growing and shrinking patterns, examples can be drawn from statistics concerning poverty and development in the world. Students can look at how their actions help to change these patterns.</p>
<p>Catholic Character Theme: Compassion A compassionate person feels another person's pain and opens their heart to that person's needs. Compassion is visible whenever there is acceptance and care for the struggling members of our Catholic schools.</p>	<p>Understanding how algebraic expressions and equations relate to real situations can be challenging for many students. In the Catholic school classroom, teachers encourage a climate of cooperation and support. Students can work together to support those who are struggling with these concepts, and in so doing, also learn about compassion.</p>
<p>Catholic Character Theme: Community: The Holy Spirit unites us as a community, and gives each of us gifts to help one another grow as followers of Jesus. Community is visible whenever the friendship, love and kindness of Jesus are present in our Catholic schools.</p>	<p>We can establish a classroom learning environment that fosters community, where "mistakes" are seen as "learning opportunities" and feedback seen as helpful, rather than punitive. Solving mathematical equations together can help students build stronger relationships in pairs, small group or large group settings. They can apply reasoning skills; reflect on and monitor their thinking to clarify understanding; work together to choose appropriate learning tools; and communicate mathematical thinking orally, visually and in writing. In this way, they become aware of their strengths and areas for growth while supporting each other's learning in a community-fostering environment.</p>

Support Resources:

Journey Activities

Grade 4	Grade 5	Grade 6
CGE Overall - Catholic Graduate Expectation - A Discerning Believer: A discerning believer formed in the Catholic Faith community who	CGE 2c - Catholic Graduate Expectation – An Effective Communicator: Presents information and ideas clearly and honestly and with sensitivity to	CGE 5e - Catholic Graduate Expectation - A Collaborative Contributor: Respects the rights, responsibilities and contributions of self and others.

celebrates the signs and sacred mystery of God's presence through word, sacrament, prayer, forgiveness, reflection and moral living.	others.	
Students will: Discuss signs and symbols used in worship. Explore the concept of symbols and signs. Brainstorm the various symbols and signs that form an integral part of the Catholic faith tradition (e.g. the cross, light, the Eucharist, colours as symbols, etc.)	Students will: Identify and sort natural/found objects according to pattern rules Discuss and defend pattern rules to another group. Become aware of the need to treat others with sensitivity and respect when they are presenting their ideas, particularly if the presenter is reticent or uncomfortable speaking before a large group. Support and encourage peers modeled on Jesus' treatment of others-“What would Jesus do?”	Students will: Identify and extend number and symbol patterns in small groups Discuss the rights of all individuals in the group to feel accepted and to have their contributions valued.

Curriculum Frameworks

<http://www.eoccc.org/onlinefw/onlineframeworks.html>

Grade 3-4 Framework 2 Theme: <i>Community and the Common Good</i> Framework 6 Theme: <i>Hope</i>	Grade 4 Framework 1 Theme: <i>Love and Justice</i> Framework 4 Theme: <i>Stewardship for Creation</i>
Grade 4-5 Framework 1 Theme: <i>Community and the Common Good</i> Framework 6 Theme: <i>Stewardship for Creation</i>	Grade 5 Framework 2 Theme: <i>Dignity of Work and Service</i> Framework 4 Theme: <i>Human Rights and Responsibilities</i>
Grade 5-6 Framework 2 Theme: <i>Human Rights and Responsibilities</i> Framework 4 Theme: <i>Stewardship for Creation</i>	Grade 6 Framework 1 Theme: <i>Mystery, Wonder and Awe</i> Framework 2 Theme: <i>Dignity of Work and Service</i> Framework 5 Theme: <i>Stewardship for Creation</i>
Grade 6-7 Framework 1 Theme: <i>Love and Justice</i> Framework 5 Theme: <i>Mystery, Wonder and Awe</i>	

Curriculum Support for Catholic Schools

<http://www.eoccc.org/csfc>

Catholic Character Theme: <i>Faith</i> http://eoccc.org/csfc/themes/faith.html	Anchor Concept: <i>Community</i> http://eoccc.org/csfc/concepts/acommunity.html
Catholic Character Theme: <i>Love and Justice</i> http://eoccc.org/csfc/themes/lovejustice.html	Anchor Concept: <i>Justice</i> http://eoccc.org/csfc/concepts/ajustice.html
Catholic Character Theme: <i>Community & The Common Good</i> http://eoccc.org/csfc/themes/commongood.html	Anchor Concept: <i>Interdependence</i> http://eoccc.org/csfc/concepts/ainterdependence.html