

Our Language, Our Story: Curriculum Connections

Division: Intermediate

Subject: Mathematics

Strand: Patterning & Algebra

Overall Expectations

Grade 7	Grade 8
<ul style="list-style-type: none"> • represent linear growing patterns (where the terms are whole numbers) using concrete materials, graphs, and algebraic expressions; • model real-life linear relationships graphically and algebraically, and solve simple algebraic equations using a variety of strategies, including inspection and guess and check. 	<ul style="list-style-type: none"> • represent linear growing patterns (where the terms are whole numbers) using graphs, algebraic expressions, and equations; • model linear relationships graphically and algebraically, and solve and verify algebraic equations, using a variety of strategies, including inspection, guess and check, and using a “balance” model.

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: Temperance The cardinal virtue of temperance (moderation) is the practice of enjoying life's pleasures in keeping with the call of the Gospel. A temperate person strives to practice balance in living responsibly.</p>	<p>Solving algebraic equations using the balance method can tell us things about temperance. When we balance an equation we must pay attention to each side in order to maintain the balance and find an accurate solution. In our lives we also try to practice balance (temperance) in our behaviours so that we can live life to the fullest as followers of Jesus and His Gospel.</p>
<p>Catholic Character Theme: Solidarity Solidarity is about standing together with a person or group of persons who are suffering. We belong to one another as a community, and if one member suffers, all of us are suffering. As disciples of Jesus, we are called to solidarity with all persons both near and far away.</p>	<p>The study of mathematical relationships between numbers in this strand can prompt us to talking about solidarity initiatives in our schools. For example, we can use examples from fundraising to determine the value of \$5 bills and toonies placed in an envelope for an organization that helps the poor, using variables in algebraic equations represented by $v = 5f + 2t$. In this way, students can use their mathematical knowledge of relationships to help them appreciate the importance of stand with others who may be in need.</p>
<p>Catholic Character Theme: Community Community is visible whenever the friendship, love and kindness of Jesus are present in our Catholic schools.</p>	<p>Equations are like community. When one variable changes in an equation, it impacts or changes the answer to the problem. In our relationships with other people, each one of us is a <i>variable</i> which can positively or negatively affect those around us. The words and actions of sports team captains, custodians, teachers, principals, or Student Council presidents can impact the school community. Equations can remind us that we bring out the best in our communities by treating others with friendship, love and kindness.</p>

Support Resources:

Journey Activities

Grade 7	Grade 8

<p>CGE 2e – Catholic Graduate Expectation – An Effective Communicator: Uses and integrates the Catholic faith tradition in the critical analysis of the arts, media, technology and information systems to enhance the quality of life.</p> <p>CGE 4a - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: Demonstrates a confident and positive sense of self and respect for the dignity and welfare of others;</p> <p>CGE 4c - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: Takes initiative and demonstrates Christian leadership.</p> <p>CGE Overall - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: A self-directed, responsible, lifelong learner who develops and demonstrates their God-given potential.</p>	<p>CGE 2e – Catholic Graduate Expectation – An Effective Communicator: Uses and integrates the Catholic faith tradition in the critical analysis of the arts, media, technology and information systems to enhance the quality of life.</p> <p>CGE 4a - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: Demonstrates a confident and positive sense of self and respect for the dignity and welfare of others;</p> <p>CGE 4c - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: Takes initiative and demonstrates Christian leadership.</p> <p>CGE Overall - Catholic Graduate Expectation - A Self-Directed, Responsible, Lifelong Learner: A self-directed, responsible, lifelong learner who develops and demonstrates their God-given potential.</p>
<p>Students will:</p> <ul style="list-style-type: none"> Pose and solve patterning challenges (e.g., the graphic designs of Escher) Design a patterning problem such as a maze or puzzle for younger students who may experience difficulty. 	<p>Students will:</p> <ul style="list-style-type: none"> Use a spreadsheet program to identify, create and extend patterns for a specific purpose (e.g., temperature, number patterns) Create a pattern strategy to be solved by peers. Present and defend strategy to others. Demonstrate constructive and positive use of questioning to acquire information from others.

Curriculum Frameworks

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

<p>Grade 6-7</p> <p>Framework 1 Theme: <i>Love and Justice</i></p> <p>Framework 5 Theme: <i>Mystery, Wonder and Awe</i></p>	<p>Grade 7</p> <p>Framework 2 Theme: <i>Faith</i></p> <p>Framework 5 Theme: <i>Community and the Common Good</i></p>
<p>Grade 7-8</p> <p>Framework 4 Theme: <i>Community and the Common Good</i></p> <p>Framework 5 Theme: <i>Mystery, Wonder and Awe</i></p>	<p>Grade 8</p> <p>Framework 2 Theme: <i>Community and the Common Good</i></p> <p>Framework 6 Theme: <i>Peace</i></p>

Curriculum Support for Catholic Schools

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

<p>Catholic Theme: <i>Faith</i></p> <p>http://www.eoccc.org/csfc/themes/faith.html</p> <p>Catholic Theme: <i>Community and the Common Good</i></p> <p>http://www.eoccc.org/csfc/themes/commongood.html</p> <p>Anchor Concept: <i>Lifestyle</i></p> <p>http://www.eoccc.org/csfc/concepts/alifestyle.html</p>	<p>Anchor Concept: <i>Common Good</i></p> <p>http://www.eoccc.org/csfc/concepts/acommongood.html</p> <p>Anchor Concept: <i>Human Dignity</i></p> <p>http://www.eoccc.org/csfc/concepts/ahumandignity.html</p> <p>Anchor Concept: <i>Solidarity</i></p> <p>http://www.eoccc.org/csfc/concepts/asolidarity.html</p>
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