

Our Language, Our Story: Curriculum Connections

Division: Intermediate

Subject: Mathematics

Strand: Geometry and Spatial Sense

Overall Expectations

Grade 7	Grade 8
<ul style="list-style-type: none"> • construct related lines, and classify triangles, quadrilaterals, and prisms • develop an understanding of similarity, and distinguish similarity and congruence • describe location in the four quadrants of a coordinate system, dilate two-dimensional shapes, and apply transformations to create and analyse designs 	<ul style="list-style-type: none"> • demonstrate an understanding of the geometric properties of quadrilaterals and circles and the applications of geometric properties in the real world • develop geometric relationships involving lines, triangles, and polyhedra, and solve problems involving lines and triangles • represent transformations using the Cartesian coordinate plane, and make connections between transformations and the real world

Virtues and Themes: Possible Connections

<p>Theological Virtue: Love The theological virtue of love is God's gift to us at Baptism. The gift of Christian love enables us to love God above all things and to love others as God loves them. Love is visible in our Catholic schools wherever the kindness, service and self-giving of Jesus are found.</p>	<p>Love can be cultivated in the mathematics classroom. Love is visible in the support and assistance teachers show to students and in students' help to one another as they seek to solve problems involving triangles and lines. While transformations can be represented in the Cartesian coordinate plane, Love is represented in the kindness, self-giving and service we extend to one another. This same love cultivated in the classroom can be demonstrated through social action projects that reach beyond our walls to persons in need, such as through canned food and clothing drives.</p>
<p>Cardinal Virtue: Justice The language of our story speaks of justice. The cardinal virtue of <i>Justice</i> is found in the character of persons who practice... -seeking what is good in every situation, and -living in right relationship with God and neighbour.</p>	<p>Justice is found in the mathematics classroom when students try their best and support one another. This is part of what it means to live in right relationship with one's neighbour. Students can also connect justice with Geometry and Spatial Sense by researching geometric shapes in homes and building projects locally and through websites such as Habitat for Humanity (http://www.habitat.ca/).</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>Mathematics has its own language which can be challenging. Students who struggle with this language can feel isolated – a form of suffering that can be acute for young persons who strongly feel the need to belong. Solidarity is practiced in support for the struggling student alone or in the small group setting. The experience of solidarity can make all the difference between feeling oneself a success and a sense of failure. The solidarity we practice with one another as a class builds friendship, knowledge and a sense of belonging in the classroom and school community.</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. When the friendship, love and kindness of Jesus are present in our schools, then we are truly living as a community.</p>	<p>Just as geometric shapes have similarities and differences, we too have common characteristics as well as special gifts. These gifts from Holy Spirit are given for us to use in building up the community. When students share these gifts with one another, they are living as community. Community is visible in the classroom in the friendship, love and kindness shown through help to one another in a mathematical challenge or in the sharing of tasks as part of a group project.</p>

Support Resources:

Journey Activities

Grade 7	Grade 8
<p>CGE 4f - A Self-Directed, Responsible, Lifelong Learner: Applies effective communication, decision-making, problem-solving, time and resource management skills.</p> <p>CGE 4g - A Self-Directed, Responsible, Lifelong Learner: Examines and reflects on one's personal values, abilities and aspirations influencing life's choices and opportunities.</p>	<p>CGE 4f – A Self-Directed, Responsible, Lifelong Learner: Applies effective communication, decision-making, problem-solving, time and resource management skills.</p>
<p>Students will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Effectively work within a group to design a logo/a building or an invention for a specific purpose or group. <input type="checkbox"/> Reflect on careers in design/architecture and consider factors that may influence career opportunities. 	<p>Students will:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Work in small groups to discover relationships of internal angles in a triangle. <input type="checkbox"/> Investigate perception of and reality of geometric mathematical theories/concepts. <input type="checkbox"/> Investigate and illustrate focal points and perspective in surrounding environment (e.g., corners, hallways) <input type="checkbox"/> Listen to and respond in a constructive manner to others during presentations. <input type="checkbox"/> Use group time effectively to maximize group/individual efforts.

Curriculum Frameworks

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

Grade 6-7	Grade 7
<p>Framework 3. Theme: <i>Peace</i></p> <p>Framework 6. Theme: <i>Hope</i></p>	<p>Framework 3. Theme: <i>Mystery, Wonder and Awe</i></p> <p>Framework 6. Theme: <i>Human Rights and Responsibilities</i></p>
Grade 7-8	Grade 8
<p>Framework 1. Theme: <i>Faith</i></p> <p>Framework 2. Theme: <i>Dignity of the Human Person</i></p> <p>Framework 6. Theme: <i>Love and Justice</i></p>	<p>Framework 3. Theme: <i>Mystery, Wonder & Awe</i></p> <p>Framework 6. Theme: <i>Peace</i></p>

Curriculum Support for Catholic Schools

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

<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>Solidarity</i></p> <p>http://www.eoccc.org/csfc/concepts/acommunity.html</p>	<p>Anchor Concept: <i>Community</i></p> <p>http://www.eoccc.org/csfc/concepts/acommunity.html</p> <p>Catholic Theme: <i>Love and Justice</i></p> <p>http://www.eoccc.org/csfc/themes/lovejustice.html</p>
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