

## Curriculum Connections

Junior Engineers connects to curriculum expectations across multiple subjects – social studies, science and technology and physical education. Key curriculum connections of the program and the accompanying post-visit activity are outlined below.

### Curriculum Connections: Social Studies

Grade	Curriculum Strand	Specific Expectations
1	Heritage and Identity: Our Changing Roles and Responsibilities	<p><b>A2.1</b> formulate questions to guide investigations into some aspects of the interrelationship between events, people, and/or places in their lives and their own roles, relationships, responsibilities, and identity</p> <p><b>A2.5</b> evaluate evidence and draw conclusions about some aspects of the interrelationship between events, people, and/or places in their lives and their own roles, relationships, responsibilities, and identity/sense of self</p>
1	People and Environments: The Local Community	<p><b>B1.1</b> describe some of the ways in which people make use of natural and built features of, and human services in, the local community to meet their needs, and what might happen if these features/services did not exist</p> <p><b>B1.2</b> identify some services and service-related occupations in their community</p> <p><b>B2.5</b> evaluate evidence and draw conclusions about some aspects of the interrelationship between people and natural and built features of their local community, and some of the effects of this interrelationship</p> <p><b>B2.6</b> communicate the results of their inquiries using appropriate vocabulary</p>

		<p><b>B3.1</b> identify some of the natural and built features of their community</p> <p><b>B3.2</b> identify some distinct areas in the local community</p> <p><b>B3.3</b> describe the location of some significant places in their community, using relative location</p>
2	People and Environments: Global Communities	<p><b>B1.2</b> describe some of the ways in which two or more distinct communities have adapted to their location, climate, and physical features</p> <p><b>B1.3</b> demonstrate an understanding of the importance of sustainability in people’s interrelationship with their natural environment and of some of the consequences of sustainable and/or non-sustainable actions</p> <p><b>B2.5</b> evaluate evidence and draw conclusions about some aspects of the interrelationship between communities’ natural environment and the ways of life of people in those communities</p> <p><b>B2.6</b> communicate the results of their inquiries, using appropriate vocabulary</p>
3	People and Environments: Living and Working in Ontario	<p><b>B1.1</b> describe some major connections between features of the natural environment of a region and the type of land use and/or the type of community that is established in that region</p> <p><b>B1.2</b> describe some major connections between features of the natural environment and the type of employment that is available in a region, with reference to two or more municipal regions in Ontario</p> <p><b>B2.5</b> evaluate evidence and draw conclusions about some of the short- and</p>

		<p>long-term effects on the environment of different types of land use in municipal regions of Ontario and about key measures to reduce the negative impact of that use</p> <p><b>B2.6</b> communicate the results of their inquiries, using appropriate vocabulary</p> <p><b>B3.5</b> describe major types of land use</p>
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### Mathematics

Grade	Curriculum Strand	Specific Expectations
1	Measurement	estimate, measure, and describe the capacity and/or mass of an object, through investigation using non-standard units
2	Measurement	estimate and measure length, height, and distance, using standard units (i.e., centimetre, metre) and non-standard units
3	Measurement	estimate, measure, and record length, height, and distance, using standard units

### Science and Technology

Grade	Curriculum Strand	Specific Expectations
1	Understanding Structures and Mechanisms Materials: Materials, Objects, and Everyday Structures	<p><b>2.2</b> investigate characteristics of various objects and structures, using their senses</p> <p><b>2.3</b> investigate, through experimentation, the properties of various materials</p> <p><b>2.5</b> use appropriate science and technology vocabulary, including</p> <p><b>3.1</b> describe objects as things that are made of one or more materials</p> <p><b>3.4</b> describe the function/purpose of the observable characteristics (e.g., texture, height, shape, colour) of various objects and structures, using information gathered through their sense</p>

		<p><b>3.5</b> identify the materials that make up objects and structures</p> <p><b>3.6</b> distinguish between objects (including structures) and materials found in nature and those made by humans</p>
2	Understanding Structures and Mechanisms Materials: Movement	<p><b>2.2</b> investigate and describe different kinds of movement</p> <p><b>2.3</b> investigate the structure and function of simple machines</p> <p><b>3.1</b> describe different ways in which objects move</p> <p><b>3.5</b> identify simple machines used in devices that move people</p>
3	Understanding Structures and Mechanisms Materials: Strong and Stable Structures	<p><b>3.1</b> define a structure as a supporting framework, with a definite size, shape, and purpose, that holds a load</p> <p><b>3.2</b> identify structures in the natural environment and in the built environment</p> <p><b>3.3</b> identify the strength of a structure as its ability to support a load</p> <p><b>3.4</b> identify the stability of a structure as its ability to maintain balance and stay fixed in one spot</p> <p><b>3.8</b> explain how strength and stability enable a structure to perform a specific function</p>

### Curriculum Connections: Physical Education

Grade	Curriculum Strand	Specific Expectations
1	Strand A	<b>A1</b> apply, to the best of their ability, a range of social-emotional learning skills as they acquire knowledge and skills in connection with the expectations in the

		<p>Active Living, Movement Competence, and Healthy Living strands for this grade</p> <p><b>A1.4</b> apply skills that help them build relationships, develop empathy, and communicate with others as they participate in learning experiences in health and physical education, in order to support healthy relationships, a sense of belonging, and respect for diversity</p> <p><b>A1.5</b> apply skills that help them develop self-awareness and self-confidence as they participate in learning experiences in health and physical education, in order to support the development of a sense of identity and a sense of belonging</p> <p><b>A1.6</b> apply skills that help them think critically and creatively as they participate in learning experiences in health and physical education, in order to support making connections, analysing, evaluating, problem solving, and decision making</p>
1	Strand B	<p><b>B3</b> demonstrate responsibility for their own safety and the safety of others as they participate in physical activities</p>
1	Strand C	<p><b>C1</b> Perform movement skills, demonstrating an understanding of the basic requirements of the skills and applying movement concepts as appropriate, as they engage in a variety of physical activities</p> <p><b>C1.2</b> demonstrate the ability to move and stop safely and in control, with an awareness of people and equipment around them</p> <p><b>C1.3</b> perform a variety of locomotor movements, travelling in different directions and using different body parts</p>

		<p><b>C2</b> apply movement strategies appropriately, demonstrating an understanding of the components of a variety of physical activities, in order to enhance their ability to participate successfully in those activities</p> <p><b>C2.2</b> apply a variety of simple tactics to increase their chances of success while participating in and exploring physical activities</p>
2	Strand A	<p><b>A1.1</b> apply skills that help them identify and manage emotions as they participate in learning experiences in health and physical education, in order to improve their ability to express their own feelings and understand and respond to the feelings of others</p> <p><b>A1.4</b> apply skills that help them build relationships, develop empathy, and communicate with others as they participate in learning experiences in health and physical education, in order to support healthy relationships, a sense of belonging, and respect for diversity</p> <p><b>A1.5</b> apply skills that help them develop self-awareness and self-confidence as they participate in learning experiences in health and physical education, in order to support the development of a sense of identity and a sense of belonging</p> <p><b>A1.6</b> apply skills that help them think critically and creatively as they participate in learning experiences in health and physical education, in order to support making connections, analysing, evaluating, problem solving, and decision making</p>
2	Strand B	<p><b>B3.1</b> demonstrate behaviours and apply procedures that maximize safety and lessen the risk of injury, including the risk of</p>

		<p>concussion, for themselves and others during physical activity</p> <p><b>B3.2</b> identify ways of protecting themselves and others, including those with medical conditions, from safety risks while participating in physical activity</p>
2	Strand C	<p><b>C1.2</b> demonstrate the ability to jump, hop, and land safely and in control, taking off from one foot or from two feet</p> <p><b>C1.3</b> perform a variety of locomotor movements with and without equipment, travelling in different directions and at different speeds, and using different pathways</p>
3	Strand A	<p><b>A1.4</b> apply skills that help them build relationships, develop empathy, and communicate with others as they participate in learning experiences in health and physical education, in order to support healthy relationships, a sense of belonging, and respect for</p> <p><b>A1.5</b> apply skills that help them develop self-awareness and self-confidence as they participate in learning experiences in health and physical education, in order to support the development of a sense of identity and a sense of belonging diversity</p> <p><b>A1.6</b> apply skills that help them think critically and creatively as they participate in learning experiences in health and physical education, in order to support making connections, analysing, evaluating, problem solving, and decision making</p>
3	Strand B	<p><b>B3.1</b> demonstrate behaviours and apply procedures that maximize safety and lessen the risk of injury, including the risk of concussion, for themselves and others during physical activity</p>

3	Strand C	<p><b>C1.2</b> demonstrate the ability to jump for distance or height, using two-foot and one-foot take-offs, while remaining in control</p> <p><b>C1.3</b> perform a variety of locomotor movements with and without equipment, alone and with others, moving at different levels, using different pathways, and travelling in different directions</p>
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