

Part II Classroom Applications Document

Title: Save the Bees

Rationale for One Great Thing: The Concept Focus in the Saskatchewan Curriculum for Grade 8 is Social Issues such as sustainability. Honeybees play a vital role in sustaining our ecosystems as well as in agriculture and in general life as we know it, however their numbers are rapidly declining making bee conservation a relevant social issue.

Grade Level: 8

Classroom Applications:

Drama: In this activity, students would be asked to work in pairs and given the starting point/question of “What would the world be like if there were no bees?” Students would be asked to create and record/perform a script, 3-5 minutes in length, such as a talk show, newscast/news story etc which would be performed/shared with the class. Student learning would be supported through providing a safe space in which to research, create, rehearse, and perform as well as providing any props students may need and a device for recording if necessary. Student assessment would take place through evaluation of the completed work as well as self/group and peer evaluations. The [full lesson plan for this activity can be found here.](#)

Curriculum connection:

CP8.6 Express student perspectives on social issues (e.g., poverty, racism, homophobia, sustainability, gangs) in drama and/or collective creation.

b. Use inquiry in drama to investigate topics of importance to students (e.g., issues of concern to youth or recent news items):

- Collaborate with other students to explore compelling questions through drama (What if a new law was passed that ...?).
- Brainstorm and negotiate with other students to determine how fictional situations and dramatic episodes might be explored.
- Collaborate on the development and refinement of several drama episodes or collective creation to address the selected issue.
- Recognize how research contributes to the authenticity and significance of the drama work.

(Saskatchewan Curriculum: Arts Education 8, 2009)

Visual Art: In this lesson, students will be asked to create a piece of visual art inspired by honeybees. Their piece could reflect the valuable contribution of bees, the current issues surrounding the decline of the bee population, and the effects of that decline on our society and ecosystems. Students will be

encouraged to select an art form they feel would be most effective in conveying their message. The teacher's role would be to provide students with a wide array of art materials such as clay, paper, paint, pencils, pastels or any other medium students may be inspired to use as well as showing samples of a variety of bee inspired art such as [this artist who created large murals to raise awareness](#) or this [hive inspired sculpture](#) or a [honeycomb inspired installation](#). Ideally completed works would be displayed, with student permission, in a common area of the school as a means of drawing attention and creating opportunity for conversations about the current plight of the bees. Student assessment would take place through a confidential journal about their piece including a reflection of their experience and process.

Curriculum connection:

CP8.11 Select and use appropriate forms, technologies, images, and art-making processes to express student perspectives on social issues.

- a. Select visual art forms (e.g., print-making, installations, animation) to express ideas about social issues

(Saskatchewan Curriculum: Arts Education 8, 2009)

Dance: Students would be divided into groups and asked to create a dance/movement piece to the music of [Rimsky Korsakov Dance of the Bumble Bee](#) that conveys their thoughts, feelings, emotions and/or perspective on the effects of the declining bee population. Once completed, each group would share their composition and as a group discuss how dance pieces shared conveyed different perspectives on the same issue even though they all began with the same piece of music. The teacher would support student learning by providing a safe space for students to create and share their expressions and would provide the music and any props they may want in their pieces. Assessment would occur through evaluation of the completed piece as well as self/group and peer evaluations.

Curriculum connection:

CP8.1 Create dance compositions that express ideas and student perspectives on social issues (e.g., poverty, racism, homophobia, **sustainability**, gangs).

- a. Use inquiry in dance to express student perspectives on social issues (e.g., poverty, racism, homophobia, sustainability):
 - Generate key questions to guide inquiry in dance (e.g., How could we represent through dance the devastating effects of poverty or racism?).
 - Use the dance-making process to explore the central questions and ideas (e.g., How could we show through movement the effects of a hurtful comment?).
- b. Investigate how a single idea can be developed in many ways and directions (e.g., How many different ways can we represent through movement a feeling of hopelessness or anger about this injustice?)

(Saskatchewan Curriculum: Arts Education 8, 2009)

Music: For this lesson, students are asked to create a piece of music, song or lyrics related to bees. This can include the importance of bees, the decline of the population or even what the world would be like

without them. Items such as digital/online music making software, soundscapes and field recordings could all be used in their creation. Completed work would only need to be shared with the teacher for evaluation, however sharing with their peers would be supported. Assessment would happen through sharing of completed work with the teacher as well as completion of a self-reflection/journal outlining their process.

Curriculum connection:

CP8.9 Compose sound compositions in response to social issues (e.g., poverty, racism, homophobia, sustainability, gangs)

- b. Create and perform own music compositions, improvisations, or song lyrics in response to a social issue of importance to students.
- c. Make interpretive decisions, demonstrating understanding of a variety of ways in which music concepts can be applied (e.g., tempo, dynamics, articulation, tone colour).
- d. Determine appropriate sound sources, forms, and processes for creating music expression.
- e. Explore and expand upon a musical idea to achieve more depth of meaning and expression.
- f. Generate and develop music ideas from a variety of sources regarding social issues of interest to students.

(Saskatchewan Curriculum: Arts Education 8, 2009)

Science: In this lesson, students work in small groups to research what effects, if any, electromagnetic radiation use (such as what is found in cell phones) has on honeybees. Groups would share their research with the class in a format of their choosing such as a power point, poster/pamphlet, video/news story etc. Allowing the students to share their findings in a manner of their choosing supports student learning through increased engagement. Learning would also be supported by encouraging students to explore what they find further, allowing them to take their learning in a direction that has a connection/meaning for them. Student assessment would be through evaluation of their completed presentation as well as a self-assessment/reflection.

Curriculum connection:

OP8.4 Evaluate the impact of electromagnetic radiation-based technologies on self and community

- e. Defend a position on an issue or problem, identified through personal research, related to the impact of electromagnetic radiation-based technologies on self and community.

(Saskatchewan Curriculum: Science 8, 2009)

Math: In an attempt to connect math concepts to real world scenarios, students will use statistics around the role of bees in agriculture to better understand and apply concepts such as percent, fractions and ratios. For example, information collected from sites such as [5 Ways Bees Are Important to the Environment](#) provides information about bees contributions to our food which in turn students can represent using percentages, ratios and/or fractions. Information regarding the decline of the bee population could also be used in developing word problems. [Some sample questions can be found here.](#) The teacher could also use bee scenarios to reinforce concepts such as volume (honey jars) or surface area (beehives/honeycomb) which are also part of the grade 8 curriculum. Learning is being supported by providing students with real world math applications, making the content more relevant and interesting. Assessment would occur mostly through successful completion of practice questions and tests.

Curriculum connection:

N8.2 Expand and demonstrate understanding of percents greater than or equal to 0% (including fractional and decimal percents) concretely, pictorially, and symbolically. [CN, PS, R, V]

- d. Record the percent, fraction, and decimal forms of a quantity shown by a representation on grid paper.
- j. Pose and solve problems involving percents stated as a percent, fraction, or decimal quantity.

N8.3 Demonstrate understanding of rates, ratios, and proportional reasoning concretely, pictorially, and symbolically

- a. Identify and explain ratios and rates in familiar situations (e.g., cost per music download, traditional mixtures for bleaching, time for a hand-sized piece of fungus to burn, mixing of colours, number of boys to girls at a school dance, rates of traveling such as car, skidoo, motor boat or canoe, fishing nets and expected catches, or number of animals hunted and number of people to feed).

(Saskatchewan Curriculum: Mathematics 8, 2008)

Social Studies: After exploring in a variety of other classes the issues currently facing the bees and the implications that would have on society and ecosystems, as a class brainstorm what we can do as individuals and as a large group to help reverse the declining bee population. Students will be asked to individually select one thing they could do at home to make a difference and would be asked to provide documentation of what they chose (through photographs or a video). As a group, students would select one thing we could do at school to help such as planting a garden with bee friendly plants and flowers or writing letters to the board office or the city asking them not to spray the dandelions or use other pesticides that can harm the bees. Learning can be supported by providing students with materials needed such as seeds ([can obtain free sunflower seeds online here](#)) as well as following their lead on what direction to take or possibly even attend a city council meeting where students could present their concerns. Assessment will be evaluated based on participation as well as a journal reflection.

Curriculum connection:

RW8.3 Critique the approaches of Canada and Canadians to environmental stewardship and sustainability.

c. Tell the story of changes made in his or her behaviour to protect the environment (e.g., walking, purchasing locally produced or seasonal products, recycling; composting; disposing responsibly of garbage; using less paper; using less plastic; factoring packaging into purchases).

(Saskatchewan Curriculum: Social Studies 8, 2009)

Sources

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