



Action Schools! BC



Instructional Example

Healthy Hearts through Dance

Subject: Physical and Health Education (PHE) Grade 2

OVERVIEW

Heart disease is the second leading cause of death in Canada (Statistics Canada, 2016). The Heart and Stroke Foundation (2016) maintains that it is critical to educate the public about heart disease prevention. To help achieve this, schools can play an instrumental role in fostering mental well-being through increasing students' physical literacy (Pan-Canadian Joint Consortium for School Health, 2013; Pritchard, 2016). This instructional example is designed for teachers to engage Grade 2 students to learn more about how the heart works and ways to keep their hearts healthy. It is important to educate students early about the basic function of the heart, its main parts, and creating a healthy heart through cultural, artistic, and active means such as Aboriginal dance. This aligns with Canada's Heart and Stroke Foundation's mission to give children and youth the best start for a long, healthy life (2016).

BIG IDEAS

- Our physical, emotional, and mental health are interconnected.
- Learning how to participate and move our bodies in different physical activities (PAs) (e.g., Aboriginal dance) helps us develop physical literacy (e.g., acquiring basic knowledge about how to strengthen muscles, including heart muscles).

CORE COMPETENCIES

Communication (C)

- Collaborate to plan, carry out, and review constructions and activities.
 - Students work together to accomplish goals, either face to face (e.g., creating a shared understanding about what a heart does), or through digital media (e.g., acquiring knowledge about the function of the heart through interactive websites such as www.kidshealth.org).

Thinking (CT)

- Generating ideas.
 - Students may generate creative ideas as a result of free play, engagement with someone else's ideas, a naturally occurring problem or constraints, or interest or passion (e.g., inviting students to learn about healthy heart through the construction of a simple Aboriginal dance with the help of an Elder/Aboriginal dancer and teachers, which aims to increase students' passion for PA).

Personal and Social (PS)

- Personal values and choices.
 - Students define what they value (e.g., inviting students to reflect upon how they can create a healthy heart through PA such as dance).

LEARNING STANDARDS

PHE Curricular Competencies (What Students Will Do)

Physical Literacy

- Develop and apply a variety of movement concepts and strategies in different PAs (e.g., helping students to understand that unlike the muscles in the arms and legs which require us to think in order to control our movements, the muscle in the heart contracts and relaxes on its own and happens automatically even when we are asleep).

Mental Well-Being

- Identify personal skills, interests, and preferences and describe how they influence self-identity (e.g., engaging students to be physically active is key, because Liu, Wu, and Ming (2015) found that PA has shown to be a key factor in explaining children's and adolescents' increased self-concept and self-worth).

PHE Content (What Students Will Know)

- The effects of PA on the body and practices that promote health and well-being, including those relating to PA and illness prevention (e.g., teaching students about the strong connection between a healthy heart and PA is important because findings, such as Suls and Bunde (2005), have discovered that people with depression and anxiety are more likely to develop cardiovascular disease. Norris, Carroll, and Cochrane (1992) have noted that adolescents who self-reported exercising more tend to exhibit less stress and depression).

COMPREHENSIVE SCHOOL HEALTH PILLARS

Relationships and Environments:

- Opportunities are created for all students to participate in academic and non-academic activities (e.g., opportunities are provided for students to learn about how to maintain a healthy heart through fun, artistic, and active means such as Aboriginal dance).

Teaching and Learning:

- Knowledge, understanding, and skills for students to improve their health and well-being and enhance their learning outcomes (e.g., helping students to acquire knowledge about what a heart does and how to strengthen it through diverse movements during in-class performance of Aboriginal dance).

Community Partnerships:

- Schools develop coordinated approaches that address the needs of students (e.g., finding ways for students to promote "healthy heart through Aboriginal dance". Not only can students take a leadership role in promoting healthy heart through Aboriginal dance, but they also promote the value of being physically active with the community).

School Policies:

- Adopt the "healthy heart through Aboriginal dance" concept as a school-wide practice that promotes and supports students' well-being through active participation in learning about healthy heart through dance.

CROSS-CURRICULAR CONNECTIONS

Science

- Communicate observations and ideas using oral or written language, drawing, or role-play by creating a shared understanding about what a healthy heart does and how to maintain it.

Social Studies

- Explain why people's beliefs, values, worldviews, experiences, and roles give them different perspectives on people, places, issues, or events (perspective). Invite Elders to speak to the class about Aboriginal cultural such as the importance of music and types of dance that are appropriate for the healthy heart lesson.

FIRST PEOPLES PRINCIPLES OF LEARNING FOR ALL STUDENTS

- Learning involves recognizing the consequences of one's actions (e.g., experiential learning has a particular value in traditional First Peoples cultures. Engaging students in experiential learning such as listening to Elders' story allows students to reflect about their sense of self and being in the world).
- Learning is embedded in memory, history, and story (e.g., Elders' presentation on Aboriginal culture and dance will be highlighted in the lesson as oral tradition is a valuable means by which wisdom or information transmitted over generations in First People cultures, which often incorporates dance).

TIMEFRAME

- 60 minutes (over two sessions)

MATERIALS AND TECHNOLOGY

- A computer lab or computers
- A board and markers
- Finding Elders and/or Aboriginal dancers
- Finding a piece of Aboriginal music
- Hardcopy of the lesson materials (if needed)
- "How the Body Works: The heart" (online activity, link below)
- "How Your Heart Works" (video clip)
- "How much do you know about your heart?" (online quiz)

TEACHER TIPS

- Use the house-heart analogy to help students understand what a heart is. This is done by explaining to students that just like there are rooms inside a house, the heart has four chambers. The heart also has four valves, which act like doors, allowing blood to flow in and out of each chamber.
- Use the car-body analogy to emphasize the function of a heart. For example, it is similar to how a car pumps oil through its parts, the heart pumps blood to different parts of the body.
- Connect with local Aboriginal bands (see Government of British Columbia, 2016 – contact list: <http://www2.gov.bc.ca/gov/content/governments/aboriginal-people/aboriginal-organizations-services>) in advance in order to invite Elders to speak to their class about Aboriginal music. If Elders are not available, teachers might wish to connect with Aboriginal dance agencies (see The Dance Centre, 2016 – contact list: <http://www.thedancecentre.ca/members/index/aboriginal>) in advance in order to invite Aboriginal dancers to work with students on the creation of dance moves (community involvement).
- Adopt "Exercise – check your pulse" (Women's and Children's Health Network, 2016 – <http://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=285&id=1467>)

STRATEGY

- Begin by having students explore the site "How the Body Works" link (<https://kidshealth.org/en/kids/center/htbw-main-page.html>) and direct students to click on the "Heart" icon.
- Direct students to click on the "Quiz" icon and have students complete the "How much do you know about your heart?" quiz.
- Discuss with students about the function of a heart.
 - Break students into group of 4 to discuss the topic and record students' ideas on the board.
 - Once students have a general understanding about "what a heart is" and "what the heart does", teachers can go over the quiz with correct answers.
 - After teachers go over the quiz with the class, teachers can present the video clip about "How Your Heart Works" https://www.youtube.com/watch?v=eVG45_iF9U.
- Pose the following inquiry question for the students "How can we take care of our heart?"
 - Break students into group of 4 to discuss the topic.
 - Have each group present its ideas to the class.
- Record ideas on the board and draw students' attention to the benefits for being physically active. Examples include:
 - Being physically active can strengthen our heart muscle.
 - Being physically active can strengthen our heart and improve lung function.
 - ✓ It improves our heart's ability to pump blood to our lungs and throughout our body. In other words, since oxygen levels in our blood rise, more blood can flow to our muscles.
- With the understanding that being physically active will help exercise and strengthen our heart, if possible, have an Elder briefly share the importance of dance in Aboriginal culture.
- If Elders are not available, invite an Aboriginal dancer to briefly talk about the importance of dance in Aboriginal culture and guide the class to create a short Aboriginal dance.
 - Have the class brainstorm with Elders and/or Aboriginal dancers about moves that can be created within the Aboriginal culture. The dance shall include changes in directions and levels of intensity in movements.
- Introduce and teach the class about the pulse-checking concept and show students how to pulse check (refer to "Teacher Tips" for resource).
 - Have the class practice the dance and pulse checking.
 - During the dance routine, pulse checking will be incorporated.
 - For example, when the music stops, teachers will ask students to find and check their pulse.
 - Teachers will ask the class to resume dancing and have students find and check their pulse when the music stops again.
 - Teachers will draw students' attention to signs of an increased heart rate.

- ✓ For example, "Is your pulse quicker when performing upbeat vs. slow movements?"
"Does your face feel warmer?" "Do you notice that you are breathing harder?"
- Thank the Elder/Aboriginal dancer for coming to the class.
- Have the class complete the online activity: "How the Body Works - The Heart"
<https://kidshealth.org/en/kids/bfs-csactivity.html> and printout their work for assessment.
- Incorporate Action Schools! BC *Physical Activity- Healthy Heart (Dance)* learning activity (available from: www.actionschoolsbc.ca/resources).

ASSESSMENT

- Pre-assessment
 - Completion of the online quiz "How much do you know about your heart?" will allow teachers to discern how much the class knows about the function of a heart.
- Post-assessment
 - Completion of the online activity "How the Body Works - The Heart" will allow teachers to discern how much the class retains information from both the "How Your Heart Works" video and lessons. Teachers can then address any misunderstanding about the function of a heart.
- Participation
 - Demonstrate a willingness to participate in physical activity through Aboriginal music and dance experience.

RESOURCES/REFERENCES

- Government of British Columbia. (2016). *Aboriginal organizations & services*. (2016). Retrieved from <http://www2.gov.bc.ca/gov/content/governments/aboriginal-people/aboriginal-organizations-services>
- Heart and Stroke Foundation. (2016). *About us*. Retrieved from http://www.heartandstroke.com/site/c.iklQLcMWJtE/b.3479407/k.BD13/Mission_and_Values.htm
- Kidshealth.org. (2016). *How Your Heart Works*. Retrieved from https://www.youtube.com/watch?v=eVG45_iF9U
- Kidshealth.org. (2016). *The heart*. Retrieved from <https://kidshealth.org/en/kids/center/htbw-main-page.html>
- Liu, M., Wu, L., & Ming, Q. (2015). *How does physical activity intervention improve self-esteem and self-concept in children and adolescents? Evidence from a meta-analysis*. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/26241879>
- Norris, R., Carroll, D., & Cochrane, R. (1992). The effects of physical activity and exercise training on psychological stress and well-being in an adolescent population. *Journal of Psychosomatic Research*, 36, 55–65.
- Pan-Canadian Joint Consortium for School Health. (2013). *Schools as a setting for promoting positive mental health: A Pan-Canadian toolkit using a comprehensive school health approach*. Retrieved from http://www.prevnet.ca/sites/prevnet.ca/files/PMH_Presentation_for_PREVNet_with_JCSH_Slide_May_2_013.pdf
- Pritchard, M. (2016). *Burnaby explores the links between mental health, physical activity and physical literacy*. Retrieved from <http://planh.ca/news/burnaby-explores-links-between-mental-health-physical-activity-and-physical-literacy>
- Suls, J., & Bunde, J. (2005). Anger, anxiety, and depression as risk factors for cardiovascular disease: The problems and implications of overlapping affective dispositions. *Psychological Bulletin*, 131, 260–300.
- The Dance Centre. (2016). *Aboriginal*. Retrieved from <http://www.thedancecentre.ca/members/index/aboriginal>
- Statistics Canada. (2016, March). *Changes in causes of death, 1950 to 2012*. Retrieved from <http://www.statcan.gc.ca/daily-quotidien/160321/dq160321e-eng.htm>
- Women's and Children's Health Network. (2016). *Exercise - check your pulse*. Retrieved from <http://www.cyh.com/HealthTopics/HealthTopicDetailsKids.aspx?p=335&np=285&id=1467>