

Subject/Grade: Health		Lesson Title: Learning About the Heart and Lungs	Grade: One
Perspective: Building on what is already known.			
Stage 1: Identify Desired Results			
Outcome(s)/Indicator(s): USC1.2: Determine, with support, the importance of the brain, heart, and lungs and examine behaviours that keep these organs healthy. Indicators: a) Use common and accurate language to talk about the brain, heart, and lungs (e.g., heart beat, blood, oxygen, breath, thoughts). c) Recognize that the heart is a "pump" about the size of a clenched fist. d) Feel and describe the sensation of one's heart beat (i.e. chest, neck, wrist) while standing still and after physical activity.			
Key Understandings: ('I Can' statements) <ul style="list-style-type: none">• I can use common and accurate language to talk about the brain, heart, and lungs (e.g., heart beat, blood, oxygen, breath, thoughts).• I can recognize that the heart pumps blood through our bodies and is about the size of a fist.• I can recognize that the heart is the hardest working muscle in my body.• I can feel and describe the sensation of my heartbeat while standing still and after physical activity.• I can understand that drums are the heartbeat of Mother Earth in First Nations culture.• I can demonstrate the rhythm of a heartbeat using a drum.• I can explain that I breathe in "good air" (oxygen) and breathe out gas (carbon dioxide).		Key Questions: <ul style="list-style-type: none">• What do our hearts look like?• How does our heartbeat change when we are sitting still versus when being active?• What does our heart do for us?• How does our body keep us alive?• How do other cultures view the heartbeat?• How do our hearts and lungs work together?• Why is it important to learn about the organs in our body?	
Prerequisite Learning: <ul style="list-style-type: none">• Students should have a basic understanding that their body is made up of unique parts that help them function daily.• Students should have a basic understanding that how we move affects the rhythm of our heart.• Basic reading, writing, cutting, and gluing skills.			
Instructional Strategies: <ul style="list-style-type: none">• Direct instruction (Read aloud)			

- Kinesthetic (Indigenous heart beat drumming, checking our pulses)
- Experiential (Hands on activity)
- Independent (Cutting and pasting worksheet)

Stage 2: Determine Evidence for Assessing Learning

Formative:

- Conversation: I will be having discussions with students during the whole group direct instruction. Students will be able to share with the class what they already know, what they learned, and how their thoughts have changed.
- Demonstration: Students will demonstrate their understanding of the size of the heart by showing their closed fist. We will open and close our fists to demonstrate the function of the heart when we read the book "Hear Your Heart" by Paul Showers. Students will also demonstrate their understanding of how to find their heartbeat by touching their neck or wrist and describing how it feels after each activity.
- Worksheets: Students will cut and glue the information about the circulatory system so that the teacher (me) can evaluate if the students understand the terminology from the activity. This will give me the chance to assess their comprehension skills.

Summative:

At the end of the lessons, this rubric will be used to assess the students' level of understanding. Link for rubric for the outcome: [Link for Rubric for Outcome USC1.2](#)

	Fully meeting expectations, with enriched understanding (EU)	Fully meeting grade level expectations (FM)	Mostly meeting grade level expectations (MM)	Not yet meeting grade level expectations (NY)
Determine with support, the importance of the brain, heart, and lungs and examine the behaviours that keep these organs healthy.	On your own, you can provide a clear statement of the importance of the brain, heart, and lungs and examine behaviors that keep these organs healthy.	With support, you can provide a clear statement of the importance of the brain, heart, and lungs and examine behaviors that keep these organs healthy.	With support, you are beginning to provide a statement of the importance of the brain, heart, and lungs and examine behaviors that keep these organs healthy.	Even with support, you have difficulty understanding the importance of the brain, heart, and lungs and examining the behaviors that keep these organs healthy.

Feedback: I will make comments here so that students know why they are at the level I assessed them at, and how they can improve for next time.

Stage 3: Build Learning Plan

Length of entire learning plan: 80 minutes over two days.

Set (Engagement):

Length of Time: 25 mins (over 2 days)

Day One: 10-15 mins

- I will draw a traditional heart (like a Valentine one) on the whiteboard and ask the class what it is.
- I will ask the class scaffolding questions such as: what does our heart do? Where is our heart? What do they already know about the heart? What do they think of when they see one?
- Start writing their ideas coming out of the heart (like a web graphic organizer).
- Point to the traditional heart and ask the class "Is this what our heart looks like inside of our body?"
 - Explain that this week we are learning about how our physical heart works.
 - Have the class hold their fist up in the air, clenched. Then explain that it is more of a pear shape, about the size of our fist.

Day Two: 10 mins

- We will have a review discussion of the previous day. Recap on the heartbeat, how it changes depending on how our bodies are moving.
- Ask the students who can remember the shape/size of the heart.
- Explain that today we are going to do an experiment to see how our heart rate changes when we do different activities. We will learn about what our heart and lungs are doing that make us feel these changes!
- We will watch the following Youtube video about how our heart works, what it does for our body, and finding our pulse.
<https://www.youtube.com/watch?v=tF9-jLZNM10>
- I will pause the video at important parts so that I can clarify/elaborate for the students, as well as point out key details.

Development:

Length of Time: 45 (over 2 days)

Day One: 20 mins

- As a class we will gather on our carpet area and sit in a circle. I will hand out a drumstick and a drum to each student. They will set it on the floor in front of them until I tell them to pick it up.
- I will explain that "Drums are highly regarded by First Nations people and they consider them to have a spirit of their own. Since early times, the drum has symbolized the circle of life and the heartbeat of Mother Earth" (Sexsmith, 2003).
- I will also explain that "First Nations drums are not percussion instruments or a toy, they are considered human because of their tie to the earth" (Northern College, 2020) and therefore we need to be gentle with the drums and treat them with respect, as they are sacred and are not a toy.
- We will start drumming a simple, constant one beat rhythm as a class to get the students familiar with the drum. Then we will move into a 2 beat rhythm (pum-pum like a heartbeat). We will close our

Materials/Resources:

- "Hear Your Heart" book by Paul Showers
- Whiteboard and markers
- Drums and drumsticks
- Computer and projector
- Youtube video- How to Feel Your Heartbeat:
<https://www.youtube.com/watch?v=tF9-jLZNM10>
- Worksheets (made by myself)
- Scissors
- Gluesticks
- Pencils/erasers

**Possible Adaptations/
Differentiation (UDL's)**

- Students with sensory needs may wear noise cancelling headphones while we drum to protect their ears from the noise.
- If students are unable to cut and glue due to their fine motor skills, I can upload the worksheet onto an Ipad where they can drag the answers to the correct question instead.
- Subtitles can be added to the Youtube video for students with any hearing impairments.
- While doing the pulse checking activity, students with mobility barriers (wheelchairs, crutches, etc.) can feel my pulse before and after I do the activity to increase it. This way they can still feel the difference and track it on their worksheet. Instead of doing full jumping jacks, they could also just do the arm motions, if able to, which should still increase their heart rate. They could also work with a partner who is able to do the motions, and then feel the partner's pulse.

eyes and take deep breaths, envisioning our heart beating with the drum.

- We will read the book “Hear Your Heart” by Paul Showers. The book talks about how heart beats are faster or slower depending on your age and what activity you are doing.
- As we read the book, we will pause at the heart beat rhythm parts and play them together on our drums.
- After the book is over I will ask the students- what do you think your heart beat sounds like when you are sitting? Sleeping? Running fast? Playing hockey? Jumping rope? I will pause after each question and have them drum what they think it would sound like.

Day Two: 25 mins

- As a class we will have a discussion about the video that we just watched. I will ask the students to tell me what key details were taught in the video. I will write them in a web on the whiteboard as the students say them. Example: We breathe in **oxygen**. We breathe out **carbon dioxide**.
- I will hand out the first worksheet that we will do together. As a class, stand up and find our heartbeats by feeling our pulse on your wrist or neck.
- Ask: How does your heart beat feel? Is the heart beat going slow or fast? Why do you think it's slow/(fast)?
 - Students circle their answer on worksheet
- Next, have the class walk around the room at a normal pace.
 - Repeat above questions. Students circle answer.
- Then, have the class do 15 jumping jacks
 - Repeat above steps.
- We will continue doing these steps until the worksheet is done.
- Next, I will hand out a worksheet that is meant to be done as independently as possible. Students may need teacher or EA assistance reading some of the questions and answers. We will read through all of the content together when I first hand the worksheet out. Then students will cut out the answers and glue them to the question that they think it fits best with.
- The web from our discussion about the Youtube video will still be on the whiteboard at this time, so students can refer to the board if they need help.

Learning Closure:

Length of Time: 10 mins (over 2 days)

Day One: 5 mins

- Refer back to the web that I drew on the whiteboard.
- Ask the students to share with the class if what they know about the heart has changed, or something new that they learned today.
- Ask if they enjoyed the drumming and if it helped them understand the heartbeat.
- Explain that tomorrow we will expand on our learning.

Day Two: 5 mins

- Go over the answers for the second worksheet.

Management Strategies and Safety Considerations:

- I always ask for a quiet hand raise if students want to share something with the class. When making the web on the whiteboard I will say “I am looking for a quiet hand to tell me something that they know about the heart”. I do not take answers from students who blurt or shout out.
- Students will keep their drums on the floor in front of them with the drumstick laying below it. I will explain how they are not a toy and that we need to be respectful with them. We do not play the drum while the teacher is reading the story or while someone else is sharing their thoughts with the class.
- When we are walking around the room to get our pulses up we need to look out for other students, desks, and obstacles. No pushing, try to stay away from other people. It is a controlled, brisk walk, we are not running.
- When doing jumping jacks or running on the spot, we will ensure that there are no backpacks, shoes, pencils, etc. that we will trip or fall on.

- Ask the students some of the key questions, class discussion about what we learned in the past two classes.
- Students will put worksheets in their Health duotang and hand them in.

Stage 4: Connection to CSCH

High Quality Teaching and Learning:

- This lesson on the heart and lungs can be very cross-curricular.
 - The pulse checking activity could be done in a Physical Education class, as there is walking, running, and jumping jacks involved. You could do many other activities in Physical Education and then have the students check or monitor their heart rate.
 - Another cross-curricular example: The heart beat drumming activity required students to keep a beat and play a rhythm on the drum. This hits outcomes in Arts Education such as:
 - **CP1.6** (Sask. Curriculum, n.d.) Demonstrate understanding of patterns and the elements of music including:
 - same and different patterns
 - rhythm (e.g., difference between beat and rhythm, sounds and silence, long and short sounds)
 - dynamics (loud and soft)
 - pitch (high and low sounds)
 - texture (sounds heard alone or together)
 - tone colours (distinguish between).
- This lesson is also culturally responsive (CSCH, 2014), allowing the students to experience how the First Nations people view the meaning of the heartbeat and how it relates to the circle of life and Mother Earth.
- The activities in this lesson allow for hands-on, experiential learning. This accommodates all different types of learners in the room. We have guided instruction activities, the hands on drumming activity, an independent worksheet, as well as the pulse checking activity that allows children to be up and out of their desks, offering a wide range of opportunities to learn (CSCH, 2014).

Family, Community, and Agency Partnerships:






- This lesson plan has the potential for a guest speaker to come in and talk to the children. For example, an elder could come in to talk to the students about their heart and minds, as the CSCH document (2014) states that "School Community Councils and First Nations Education Authorities are involved in school improvement plans". The elder could also speak about the heartbeat of Mother Earth and lead the drumming activity for the students. An elder or knowledge keeper would be able to go way more into depth on the First Nations peoples view on the heartbeat than I could, as I am a White Settler and not overly knowledgeable in this area. It would be a great learning experience for not only the students, but myself as well.

Effective Policy:

- We can promote practices, such as not smoking, that enhance the health and well being of our heart and lungs. It is important to teach students that smoking can cause wear and tear on your heart and lungs, and also lead to cancer. It is important to have "No Smoking" signs out front of our schools and make sure that we are enforcing this rule. This helps to protect our staff and students from second hand smoke.

Checking Our Pulse

Let's find out how our heartbeat feels after we do different physical activities together!

Activity	My heart beat feels... (circle)		
Standing Up 	Slow	Medium	Fast
Walking Around 	Slow	Medium	Fast
Doing 15 Jumping Jacks 	Slow	Medium	Fast
Running in Place for 15 Seconds 	Slow	Medium	Fast
After 2 Minutes of Rest 	Slow	Medium	Fast

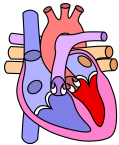
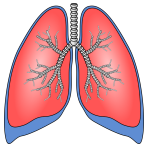


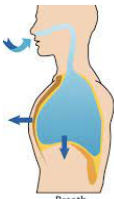
THE HEART AND LUNGS

Read the following sentences carefully. Cut out the fill in the blank words at the bottom of the page and then glue them to the corresponding question box.

_____ is a special gas in the air that helps me survive.	_____ is a muscle in my body that pumps out energy so that I can do things.	I have two _____ that help me breathe.
When I _____, the good air (oxygen) comes into my lungs.	_____ is a fluid that goes through my whole body to deliver oxygen to the heart.	When I _____, the bad gas (carbon dioxide) leaves my body.

WORD BANK:

Cut out the words below and glue them into the correct boxes above.

Heart 	Lungs 	Blood 
Oxygen 	Breathe In 	Breathe Out 