

## Accessibility Unit

**Question:** How can my community be more accessible?

**Lesson #1:**

**Learning Target:** I can brainstorm limitations people may experience.

**Materials:**

online excerpt from “My Left Foot”  
chart paper

**Lesson Sequence:**

1. Read “The Letter A” from “My Left Foot” and discuss limitations and challenges that the main character experiences.  
<http://www2.southeastern.edu/Academics/Faculty/sCraig/Brown.html>
2. As a class, on chart paper, brainstorm limitations that some people in our community may experience and record ideas in a web on the board. (eg. paralysis, broken leg, visually impairment, hard of hearing, drunkenness, dementia, dyslexia, learning disability, brain injury, anxiety disorder, amputation, chronic pain, arthritis, respiratory problem, pregnancy, problems with balance, access to gender friendly bathrooms, etc.).  
  
\*\*\*Note: avoid names of diseases and try to list specific limitations that may result from an existing condition. For example: instead of Downs Syndrome list speech disorder or learning differences.
3. Discuss terminology used to describe these limitations and the challenges of choosing appropriate terminology that is both positive and respectful.

**Lesson #2:**

**Learning Target:** I can understand and organize each brainstormed limitation into similar groupings.

**Materials:**

Chart paper brainstorm from lesson #1  
11X17 paper

### **Lesson Sequence:**

1. Have students work in partners to organize limitations brainstormed in lesson #1's web into 3 categories:
  - temporary
  - permanent
  - developing

Record thinking in 3 columns on 11X17 paper. Discuss.

2. Have students turn their paper over and recategorize the same words into the following 4 categories:
  - mobility
  - sensory
  - cognitive
  - other
3. Discuss how society often categorizes limitations into categories to help us plan and design our communities for people with all types of differences.

### **Lesson #3:**

**Learning Target:** I can identify human rights related to accessibility.

### **Materials:**

Laptop and projector  
Laptops for every 2-3 students

### **Lesson Sequence:**

**\*Recommendation: teach this lesson over 2 days**

### **Part 1:**

1. Explain to students the purpose of the United Nations. Watch the video "We the People" about the UN Global Goals. Discuss.  
<https://www.youtube.com/watch?v=RpqVmvMCmp0>
2. In groups of 2 or 3, have students then read about the UN Global Goals on the website below and choose 3-5 of these goals that they think apply to accessibility and why.  
<https://www.globalgoals.org/>

3. Share findings with the class and be prepared to justify choices.

## Part 2:

1. Project the illustrated book about the Universal Declaration of Human Rights and read it to the class. Have students make note of which articles they think could pertain to accessibility.

<https://www.un.org/en/udhrbook/index.shtml#1>

2. Discuss which articles from the charter may apply to accessibility. Here are some examples:

**Article 1:** All humans are born free and equal in dignity and rights

**Article 7:** Freedom from discrimination

**Article 23:** The right to work (workplaces need to be as accessible as possible)

**Article 25:** The right to security in the case of poor health or disability

**Article 26:** Education needs to be available and accessible

3. Explain that Canada also has a Charter of Rights and Freedoms. Review section 15 of the Canadian Charter of Rights and Freedoms and discuss.

15. (1) Every individual is equal before and under the law and has **the right to the equal protection and equal benefit of the law without discrimination** and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disabilities.

4. As an exit ticket, have students draw a sketch or make a word web about human rights related to accessibility.

## Lesson #4:

**Learning Target:** I can create a tableau depicting an accessibility challenge.

### Materials:

One **Accessibility Scenario Handout** cut into strips

### Lesson Sequence:

1. Divide students into groups of 4 or 5. Give each group one scenario from the **Accessibility Scenario Handout**. Have each group create a tableau (a frozen scene) depicting their given scenario. No talking or moving is allowed.

2. Have each group present their scenario to the rest of the class. The class then must make inferences about the accessibility challenge being depicted. Try to incorporate past lessons by discussing whether the issue is cognitive, sensory, mobility or other and whether it is developing, temporary or permanent.

### **Lesson #5:**

**Learning Target:** I can identify accessibility challenges that may exist in different places in my community.

### **Materials:**

7 pieces of chart paper and markers

### **Lesson Sequence:**

1. Place pieces of chart paper in 7 different locations around the classroom. Put one heading on each piece of paper:
  - Private homes
  - Vehicles
  - Infrastructure (Sidewalks & Roads)
  - Infrastructure (Parks & Trails)
  - Public Buildings (retail, eg where you buy something)
  - Public Buildings (assembly/where you go with other people eg. theatres, stadiums, churches, libraries, rec centers)
  - Public Buildings (other, eg. Offices, lobbies of apartment buildings)
2. Divide each piece of chart paper into 4 sections with the headings:
  - Mobility
  - Sensory
  - Cognitive
  - Other
3. In small groups have students rotate from paper to paper and brainstorm accessibility issues they can foresee in each type of location.
4. Hang chart paper at front of room and discuss responses.

### **Lesson #6:**

**Learning Target:** I can identify accessibility challenges that exist in my community.

**Materials:**

**“I can identify accessibility challenges that exist in my community”** handouts for every 2-3 students  
Clipboards and pencils

**Lesson Sequence:**

1. Have students work in partners or groups of three and give each group an **“I can identify accessibility challenges that exist in my community”** handout.
2. Choose one or more walks around your school’s neighbourhood or to different areas of your community in order to make observations of what accessibility limitations there may be for community members. Keep in mind limitations related to mobility, sensory, cognitive or other areas. If possible, try to walk in recreational, residential, and business areas.
3. After the walks share each group’s findings.

**This lesson may take several days depending on how many community walks you take.**

**Ideas of locations to explore include:**

- Immediate neighbourhood roads and sidewalks
- Recreation areas and facilities
- Public Parks/Dog parks
- Town center/strip malls
- Outdoor stairs
- Local Malls & shopping areas
- Public washrooms
- Outdoor stairs

**Lesson #7:**

**Learning Target:** I can analyze my school environment to identify accessibility concerns.

**Materials:**

**“I can analyze my school to identify accessibility concerns”** handouts for every 2-3 students  
Clipboards and pencils

**Lesson Sequence:**

1. Divide students into groups of 3 or 4. Have each group draw from the following limitations. Each group will then be further exploring their given limitation:
  - Mobility
  - Sensory (vision)
  - Sensory (hearing)
  - Cognitive
  - ADHD
  - Gender inclusive
  
2. Using the handout **“I can analyze my school to identify accessibility concerns”**, have groups explore the school building and grounds and make notes on the following areas in relation to their chosen limitation:
  - Entering/exiting the school building
  - Evacuation procedures
  - Accessing washrooms/toilets
  - Accessing water fountains
  - Playground use
  - Other outdoor areas
  - Parking
  - Access to other areas of the school
  - Inside classrooms
  
3. As a class, have each group share their findings about school accessibility.

**Homework:** Have students complete the same handout using a different built environment. Students may choose to analyze their dwelling, a retail store, or a place of assembly such as the rec center, library or sporting arena, or a community nature trail.

**Lesson #8:**

**Materials:**

None, however will need to copy a completed class created survey for everyone to use

**Learning Target:** I can create a survey to collect information about the accessibility needs of local residents.

1. In small groups brainstorm questions we could ask members of the community to collect more information about what types of accessibility needs community members currently have. Ask groups to create at least one question for each category including mobility, sensory, cognitive, and other.
2. As a class, create a collective list of questions to include in a survey. Include questions that involve all categories of limitations.

**\*\*\*See survey sample for guidance**

**\*\*\*Tips:** Include:

- age and gender
  - degree indicators (eg. not at all, sometimes, always)
  - a section for comments
3. Once surveys are complete, have students meet in groups of five or six to share survey results. Have group identify any trends they see in their surveys. Students may want to take the survey data and compile it in graphs.

**Lesson #9:**

**Learning Target:** I can identify accessibility challenges that may affect people with visual limitations when accessing the community.

**Materials:**

goggles brought from students' homes

Masking tape

**"Vision Observation Sheet"** for every 3-4 students

Clipboard and pencil

**Lesson Sequence:** Have some students bring goggles from home. Students will work in groups of 3 or 4. Each group must have at least one pair of goggles. For sanitary reasons, students should not share goggles. For each of the following activities use tape on the goggles to:

- a. only leave central pinhole vision
- b. cover the front so will only be left with periphery vision
- c. will completely cover goggles with tape for total vision loss.

Students will be given a walking route around the outside of the school that they are familiar with.

1. Begin by having the groups walk the route fully sighted.
2. Next, walk the same route having one student wear the goggles with only pinhole vision. The other students are responsible for ensuring the safety of the student wearing the goggles.
3. Repeat, using goggles with only periphery vision.
4. Finally, have one student in each group walk the route with a blindfold or with goggles completely covered with tape.
5. Have students complete the group observation sheet when finished the walks.  
**\*\*\*make group observation sheet**

### **Lesson #10:**

**Learning Target:** I can identify accessibility challenges that may affect people with auditory or cognitive limitations when accessing the community.

### **Materials:**

**1 Pictogram Handout** with scenarios cut into separate sections

### **Lesson Sequence:**

1. In groups of 2-4, students will write a message giving directions using only pictograms. Have each group draw one of the messages listed on the **Pictogram Handout**. Tell them to be sure not to show their message to other groups. Students must convey their given message using only pictures.
2. When all groups are done, post the pictograms around the room and give each group 3 minutes to decipher each pictogram.
3. Compare answers as a class when done. You may choose to give a prize to the group who solves the most pictograms as well as the group whose pictogram is most easily solved.
  - Go to the office and get some paper clips
  - Close the door
  - The bathroom is down the hall on the left
  - The water fountain is in the gym
  - There is a fire drill this afternoon
  - Paper recycling goes in the green bag
  - Friday is hot lunch day
  - Wash your hands before you eat
  - Laptops should be plugged in

### **Lesson #11:**



**Learning Target:** I can identify accessibility challenges that may affect people with mobility limitations when accessing the community. I can design and carry out tests that will assist in making our environment more accessible.

**Materials:**

**Mobility Stations Booklets**

**Station #1:** rolls of masking tape, small white boards, binders, blocks, rulers

**Station #2:** laptops, protractors

**Station #3:** wheelchair, meter sticks

**Station #4:** laptops

**Station #5:** laptops, rulers, access to stairs if possible

**Station #6:** laptops

**Lesson Sequence:**

**Station #1:** What is the highest bump a wheelchair can navigate? What test can you design to find this out? How do you know that this is the highest? What criteria did you use? (provide the following materials: masking tape rolls, small white boards, empty binders, any blocks, etc. that could be used to create a small ramp)

**Station #2:** Look at the ramps in the following link: <https://www.rollaramp.co.uk/infuriating-wheelchair-ramps-2/>

What do you think is the highest slope a ramp should be? Why? Express your answer in degrees.

What is the highest for a person using a wheelchair? A walker? A cane? Crutches?

**Station #3:** How much space is needed to turn a wheelchair around? Express the amount of space needed using the diameter of the circle needed to make the turn.

What other limitations might someone have who is using a wheelchair? How high can they reach?

**Station #4:** What types of door handles are most easily accessible to all people? Using the internet and your own observations, find 3 different types of door handles and list something positive and something negative about each type of handle.

**Station #5:** What is a reasonable allowable rise and run for stairs? This is the depth and height of each step. Should spiral staircases be allowed? Should stairs need to have a rise or can that be an open space? Why or why not?

Look at the following link showing examples of bad stair design:

<https://www.awesomeinventions.com/bad-stair-designs/>

**Station #6:** What should the criteria be for a well designed hand rail? Why do we have handrails? What help are they meant to provide? Look at the following link showing examples of bad handrails: [https://inspectapedia.com/Stairs/Handrail\\_Graspability\\_Defects.php](https://inspectapedia.com/Stairs/Handrail_Graspability_Defects.php) Find 3 pictures online of well-designed handrails and explain why you chose them. Things to think about include: height, stability, graspability, and continuity.

## **Lesson #12: Values Identification Lesson**

**Learning Target:** I can recognize what is important to me about accessibility in my community. I can identify areas where accessibility needs improving in my community.

### **Materials:**

3 small sticky notes per student

### **Lesson Sequence:**

1. Write 2 columns on the white or black board and include a learning target in each column.  
Column 1: What is important to me about accessibility in my community  
Column 2: Areas where accessibility can be improved in my community
2. First, have students brainstorm what is important to them about accessibility in their community and record these ideas in the first column. This could include things such as safety, inclusiveness, kindness, health and safety, equality, equity, fairness, awareness, education, a sense of belonging, trust, cost, practicalities
3. Next, have students brainstorm items specific to your community that they discovered while researching. Record these items in the second column. They could include things such as trimming overgrown shrubs on Main St., faster/better snow removal at bus loop, gender friendly washrooms at the library, more accessible parking spaces at our school
4. Give each student 3 small sticky notes and have them write their names on each one. Have students come to the front of the room and put their stickies beside each of the 3 accessibility issues they think are most important.
5. Have a discussion about which options students think are most important and have students defend their choices based on their personal values and what is important to them.

## **Lesson #13:**

**Learning Target:** I can complete the **consequence table tool** and write a letter indicating which items related to accessibility most need improving in my community.

### **Materials:**

## **Consequence Table Tool** handout

Laptops or paper for writing

### **Lesson Sequence:**

1. Have students each narrow their choices to 3 areas that they think most need improvement in their community. Have them each complete a **Consequence Table Tool** handout outlining their choices as well as their values related to their 3 choices.
2. Have students write a letter to council, a local accessibility committee, or a local paper indicating which 3 items most need improving. Students should connect their choices to the values that are most important to them.
3. OPTIONAL: Use student ideas to write a collective class letter with all findings to the local newspaper.

### **Optional Field Trips & Speakers:**

**Museum of Human Rights** in Winnipeg: virtual museum tour

**Speakers:** from local, provincial, or national accessibility committees

**Rick Hanson Foundation Speakers**

### **Handouts:**

**Lesson #4: Accessibility Scenario Handout**

**Lesson #6: "I can identify accessibility challenges that exist in my community"**

**Lesson #7: "I can analyze my school to identify accessibility concerns" and "I can analyze an alternative environment"**

**Lesson #8: Survey example**

**Lesson #9: Vision Observation Sheet**

**Lesson #10: Pictogram Handout**

**Lesson #11: Mobility Stations Booklet**

**Lesson #12: Consequence Table Tool**

## Scenarios in our Community

**Each group will create a tableau (a frozen scene) depicting their scenario. No talking or moving is allowed. Other groups will need to make inferences about what is happening in each scene. Give one scenario to each group and remind them to keep their scenario confidential from other groups.**

- A person with a visual impairment crossing the street
- A person in a wheelchair paying for lunch at a coffee shop
- A person with noise sensitivities in a busy grocery store
- A person with crutches getting into a car
- A person who is hard of hearing trying to understand a waiter wearing a mask in a restaurant
- A person on a plane who is anxious about flying
- A person with a stutter or speech limitation trying to order in a restaurant

**Target: I can analyze accessibility challenges that exist in my community**

**Names:** \_\_\_\_\_

Entering/exiting the building/dwelling	
Evacuation procedures (eg. fire, earthquake, & other)	
Accessing washrooms/toilets	
Accessing counters (if applicable)	
Stairs	
Outdoor areas	
Parking	

**Target: I can analyze my school environment to identify accessibility challenges**

**Names:** \_\_\_\_\_

**Limitation:** \_\_\_\_\_

Entering/exiting the school building	
Evacuation procedures (eg. fire, earthquake, & other)	
Accessing washrooms/toilets	
Accessing water fountains	
Playground use	
Other outdoor areas	
Parking	
Access to other areas of the school (eg. office, first aid room, stage)	
Inside classrooms	

**Target: I can analyze an alternative environment to identify accessibility challenges**

**Names:** \_\_\_\_\_

Entering/exiting the building/dwelling	
Evacuation procedures (eg. fire, earthquake, & other)	
Accessing washrooms/toilets	
Accessing counters (if applicable)	
Stairs	
Outdoor areas	
Parking	

### Sample Accessibility Survey

1. Do you use a wheelchair? Always Usually Sometimes Never
2. Do you use a walker or cane? Always Usually Sometimes Never
3. Are you sensitive to loud noises? Always Usually Sometimes Never
4. Can you hear traffic when walking? Always Usually Sometimes Never
5. Can you easily see oncoming traffic when crossing the street? Always Usually Sometimes Never
6. Are you able to easily access a standard public washroom? Always Usually Sometimes Never
7. Do you experience light sensitivity? Always Usually Sometimes Never
8. Are you forgetful? Always Usually Sometimes Never
9. Do you easily get confused? Always Usually Sometimes Never
10. Are you able to easily navigate bumps or slopes in your walking environment? Always Usually Sometimes Never
11. Do you need assistance on stairs? Always Usually Sometimes Never

If so what type of assistance is best? (Circle as many as apply)

railing    cane    walker    another person    wheelchair    other

12. Are you able to read signs when walking? Always Usually Sometimes Never
13. Is it easy for you to turn a doorknob? Always Usually Sometimes Never
14. Do you need mobility assistance when walking in the community? Always Usually Sometimes Never  
If so, what type? \_\_\_\_\_
15. Is it easy for you to open a heavy door? Always Usually Sometimes Never
16. Is it easy for you to access counters in public spaces? Always Usually Sometimes Never
17. Do you have difficulty hearing during business interactions? Always Usually Sometimes Never
18. Do you have difficulty focussing? Always Usually Sometimes Never
19. Are you comfortable with the washrooms available in our community? Always Usually Sometimes Never  
If not, what needs improvement? \_\_\_\_\_
20. What is your age? \_\_\_\_\_

Comments:



# Vision Observation Sheet

Names: \_\_\_\_\_

Loss of peripheral vision	Observations:
Loss of central vision	Observations:
Severe visual impairment	Observations:

## **Pictogram Activity**

Go to the office and get some paper clips

Close the door

The bathroom is down the hall on the left

The water fountain is in the gym

There is a fire drill this afternoon

Paper recycling goes in the green bag

Friday is hot lunch day

Wash your hands before you eat

Laptops should be plugged in

**Deciphering Pictograms**  
**What is Each Message?**

<b>1.</b>
<b>2.</b>
<b>3.</b>
<b>4.</b>
<b>5.</b>
<b>6.</b>
<b>7.</b>
<b>8.</b>
<b>9.</b>

## Mobility Stations

### Station #1:

**Question: What is the highest bump a wheelchair can navigate?**

What test can you design to find this out?

What criteria did you use?

Explain the procedure (steps) for your test:  
(Number your steps)

What materials would you need to carry out this test?

How would you know what the highest bump would be?

**Station #2:** (You may use a chromebook)

**Question: What is the ideal slope for a ramp?**

Look at the ramps in the following link: <https://www.rollaramp.co.uk/infuriating-wheelchair-ramps-2/>

What do you think is the highest slope a ramp should be for public use? Express your answer in degrees.

Why?

What do you think the highest slope should be for a person using a wheelchair? Why?

A walker? Why?

A cane? Why?

Crutches? Why?

**Station #3:**

**Question: How does a wheelchair impact mobility?**

How wide does a hallway need to be to turn a wheelchair 180 degrees (a half circle)?

Express the amount of space needed in metres using the diameter of the circle needed to make the turn.

What other limitations might someone have who is using a wheelchair?

How high can someone in a wheelchair reach?

How high can each person in your group reach?

What is the range of reach? (That is the difference between the longest and shortest reach)

What are some things that could impact reach for different people?

**Station #4:**

**Question: What types of door handles are most easily accessible to all people?**

Using the internet and your own observations, find 3 different types of door handles and list something positive and something negative about each type of handle.

**Handle #1 Description:**

Pros:

Cons:

**Handle #2 Description:**

Pros:

Cons:

**Handle #3 Description:**

Pros:

Cons:

**Station #5:** (You may use a chromebook)

**Question:** What should the criteria be for a well designed hand rail?

Why do we have handrails?

What help are they meant to provide?

Look at the following link showing examples of bad handrails:

[https://inspectapedia.com/Stairs/Handrail\\_Graspability\\_Defects.php](https://inspectapedia.com/Stairs/Handrail_Graspability_Defects.php)

Find 3 pictures online of well-designed handrails and explain why you chose them. Things to think about include: height, stability, graspability, and continuity.

Sketch of handrail #1:

Why you chose it:

Sketch of handrail #2:

Why you chose it:

Sketch of handrail # 3:

Why you chose it:



**Station #6:**

**Question: How should stairs best be designed for both safety and efficiency?**

What do you think is a reasonable allowable rise and run for stairs? This is the depth and height of each step. Express your answer in cm.

Rise:

Run:

Why did you choose these measurements?

Should spiral staircases be allowed? Why or why not?

Should stairs need to have a rise or can that be an open space? Why or why not?

## Consequence Table Tool: Accessibility

**The Decision – In what ways can our community be more accessible?**

### **Step 1 : Clarifying values**

List the three areas of our community where accessibility most needs improvement.

Item # 1 :

Why does this option appeal to me?

What are the downsides to addressing this option?

What values about this option are important to me?  
(eg. cost, safety, inclusion)

Alternative 2 –

Why does this option appeal to me?

What are the downsides to addressing this option?

What values about this option are important to me?  
(eg. cost, safety, inclusion)

Alternative 3 –

Why does this option appeal to me?

What are the downsides to this option?

What values about this option are important to me?  
(eg. cost, safety, inclusion)

Using your answers to these questions, record a list below of the values that are most important to you in relation to this decision.

Key Values for this decision

