

World Restart A Heart

Two hands can save a life!

Lesson Plan for Grades 7-12 (Discussion topics and activities can be tailored to specific grade level)

Lesson Style: Interactive discussion, role playing and activities

Time required: 45 minutes-1 hour

Materials suggested: Printed maps of local area, pillow or other soft object

Primary objective: To educate on the act of dialing 9-1-1, ensuring students know when and how to call, as well as important information to share with the 911 Dispatcher. To familiarize students with the concept of performing CPR and using an AED.

Key Concepts:

- 9-1-1 as an emergency services number
- Questions asked by 9-1-1 Dispatchers (What service do you need, where are you, what is the emergency)
- Emergency services available via 9-1-1 (Police, fire, ambulance)
- What CPR is and when it is used
- What an AED is, where you can find them, and when is it used

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Discussion 1

Ask students what number to call in the event of an emergency. Discuss what constitutes an emergency.

Would you call 911 if your neighbour is listening to loud music? (Unless there are safety concerns, no) Would you call 911 if you sprained an ankle? (You could but it may not be necessary depending on the nature of the injury, you may be able to bring go to medical care without needing an ambulance) Would you call 911 if a someone you're speaking with suddenly started slurring their speech? (Yes, a sudden and unusual change in behaviour could be a sign of serious medical emergency, such as a stroke or hyperglycemia/hypoglycemia).

This is an opportunity to bring up a number of scenarios and discuss the pro's and cons of calling 9-1-1 in a variety of circumstances. There are not necessarily any wrong answers, but it's important to discuss the situation and be able to justify one's decision. Certain events should be a definitive 9-1-1 call, such as any significant compromise to a person's airway, breathing or circulation. Other key indicators can include chest pain, sudden changes in behaviour, and injuries to the head/neck. Other events may be more of a grey area, and other factors should be considered such as proximity to walk-in or urgent care clinic, health conditions that could present additional complications, age of the patient and bystanders available to assist. Ensure to consider a variety of factors when discussing scenarios.

Discuss the process of calling 9-1-1. In most regions, a 9-1-1 call will be answered by a central telecommunications point and will then be transferred to the appropriate service (Police, Ambulance, Fire). The most important thing for students to be aware of when calling 9-1-1 is being able to convey their location, as well as staying on the phone with the Dispatcher. Discussion around specific emergency events the students may have witnessed or taken part in should be avoided within the lesson, however they should be made aware of teachers and school administration that they can reach out to if they have concerns over previous emergency events. These topics should be approached with empathy, ensuring you have support resources available. Outreach options are listed at the end of this document.

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Activity 1

Students should be divided into groups and given a street/area map with no address labels, which can be printed from Google Maps.

To print a map with no labels:

- Go to maps.google.com
- Zoom in on the map area you'd like to print
- Select the 'layers' box in the bottom left corner
- Select the 'More' option that pops up to the right of the layers box
- Select 'Satellite' under Map Type
- Unselect the 'Labels' checkmark in the bottom right corner of the Map type box
- Close the Map type box by selecting the 'x' in the top right corner
- Right click on the map area and select 'Print'

Each group should be given a different map location. Maps can be area landmarks, neighbourhoods near the school and community locations that students are known to frequent. The maps should feature a location marker, such as a star. Students should then be tasked with identifying the location of the 'emergency' based on the map marker and to find the following information (list can be modified as needed). Research options can be offered such as google, textbooks, area maps with address information included, etc.

- *What is the location of the marker on the map? Does it have a commonplace name? (Commonplace names would be identifiers such as John Smith School, Jane Doe Memorial Arena, Northwest Shopping Mall, etc.)*
- *What is the address of this location?*
- *Where are you located within this place? (i.e.. South-east corner of the park, North entrance of the shopping mall, corner of the baseball diamond closest to the school)*
- *What is the closest major intersection?*
- *How would you give directions to get to where you are? (Students can be asked to give directions from the school to their 'location' or from the nearest landmark, major intersection, etc.)*

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Discussion 2

When dialing 9-1-1, the caller will be asked a lot of a questions. It's a Dispatchers job to gather as much information as possible about the emergency. Students should know that it's important to answer as many questions as they can, but it's ok if they don't know the answers. Just tell the Dispatcher "I don't know."

Sometimes, people dial 9-1-1 by accident. If this happens, it's important to stay on the phone and let the dispatcher know that everything is ok and you don't need help. Mistakes happen, students should know they won't get in trouble if they accidentally call. If they just hang up, Emergency Responders will come looking for them, assuming that an emergency is happening. It would be a waste of resources so divert First Responders from a real emergency to go help someone who doesn't need assistance. It should be noted that while mistakes are ok, intentional prank calls can put lives at risk, and may come with legal ramifications.

Students should be made aware that during a medical emergency, the only concern of the attending medics is the health and safety of the patient. In many circumstances, bystanders hesitate to call 9-1-1 for a medical emergency if they are also engaged in illicit activities. While this type of activity is obviously frowned upon, it should not be a deterrent to seeking medical attention. Legal protection for bystanders includes the [Emergency Medical Aid Act](#) and the [Good Samaritan Drug Overdose Act](#).

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Activity 2

Students should be divided into groups and asked to brainstorm how to act during a medical emergency. Students may be given a mock scenario such as those listed below.

You enter a classroom and find a teacher lying unconscious on the ground.

You're walking home and you notice your neighbour sitting on their lawn, looking pale, sweaty and grabbing their chest.

They are sitting in the school cafeteria and notice one of their classmates pointing to their own throat, unable to speak or breathe.

They are in the park, climbing a tree with friends when someone slips and falls about 15 feet to the ground.

Some tasks that the students may have considered while brainstorming how to act during an emergency:

- *Call 9-1-1, tell the operator where you are and what is happening, stay on the phone and answer their questions*
- *Provide First Aid*
- *Utilize a First Aid App (Such as [this one from the Canadian Red Cross](#)) to know how to treat the illness/injury (note: only reliable organizations such as Red Cross, Heart & Stroke, St. John's Ambulance etc. should be consulted for first aid advice)*
- *Go look for a adults nearby who can help*
- *Make sure the door to the building or room is unlocked*
- *Watch the patient closely and report any changes to the 9-1-1 Operator*
- *Send someone to the building entrance or greeting area to flag down emergency responders (ensuring to stay off the road and away from traffic)*
- *Look for a first aid kit or an AED*
- *Turn on lights out front of the building and in nearby rooms/hallways so the responders can safely make their way to the patient*
- *Securing any pets so they can't escape or interfere with the medics*
- *Keeping bystanders (such as other young children) away to prevent overcrowding the patient*
- *Move the patient away from danger (when medical emergencies occur, it is generally best practice to leave the patient where they are found, unless there is a risk to stay in the area. For example, if it is a freezing cold winter day, moving the patient indoors may be considered)*

Congratulate students on a job well done, it can be a scary situation to think about and hard to know what to do.

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Discussion 3

What is CPR, and when do you do it? What is an AED, and where can I find one?

Core concepts of performing CPR and using an AED should be discussed. Studies have shown that children as young as 12 may be able to perform effective CPR. Researchers have conducted mock scenarios using training AEDs, with school children (approximate ages 10/11) with no prior knowledge of AED usage. In every practice scenario, the children were able to apply and utilize with AEDs without intervention by adults. They were typically able to administer the AED and initiate the first shock within 90 seconds.

Educators are encouraged to show a brief video, with some options featured below. These resources help quickly and accurately summarize how to perform CPR and use an AED. The goal for children is simply to introduce the concepts to ensure that they are familiar with the concepts, which ensures they will be less hesitant to act as they mature.

[How to use an AED: Training for every age](#)

[Mission Possible: 5 Steps to save a life](#)

[Learn CPR in less than 90 seconds \(Heart & Stroke Canada\)](#)

[Learn how to use an AED in less than 90 seconds \(Heart & Stroke Canada\)](#)

[Hands-Only CPR plus AED \(American Heart Association\)](#)

[CPR in action - A 3D look inside the body](#)

For older students, discussions of CPR and Cardiac Arrest can be tied into education about anatomy. The following videos are helpful in discussing the concepts of the cardiovascular system and cardiac arrest through the lens of anatomy and physiology.

[The Heart, Part 2- Heart Throbs: Crash Course Anatomy & Physiology](#) (Physiological discussion about what causes Cardiac Arrest and why performing CPR and using an AED is needed)

[The Heart, Part 1- Under pressure: Crash Course Anatomy & Physiology](#) (No direct discussion regarding CPR and AED, however, may be included in the lessons which are tying these concepts into overall discussion of the anatomy & physiology of the heart)

Some suggested questions to follow-up video learning:

- *What does your heart do? (It pumps blood around your body, which delivers oxygen to all your vital organs, muscles, and tissues)*
- *When do we do CPR? (When someone collapses and are not breathing)*
- *What how do we do CPR? (Place two hands in the center of the chest, push down hard and fast to a depth of about 2 inches, with 100-120 beats per minute)*
- *What does an AED do? (It's a device that can assist to restore a normal heart rhythm when the heart has stopped perfusing)*
- *What is Cardiac Arrest? (When the electricity in the heart stops working and the heart is no longer pumping blood around the body)*

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Activity 3

It is important to discuss where to find an AED. If your school has an AED on site, ask the students where the AED can be found. Take a walk with the students to go have a look at the AED. You may want to show it to the student and explain its features. Be cautious not to open the pad package, as they are single use and will dry out once the pads have been opened. The most important feature to note is either the lid or ON button. Some AEDs will turn on when the lid is opened, while other will require the ON button to be pushed if no lid is present. Once the AED is activated, helpers just need to listen and do exactly as the AED says.

Discussion questions may include:

- *What is the AED symbol? (Heart with a lightning bolt)*
- *Where have you seen this symbol before? (Usually found on an AED case, on/near the AED cabinet, on the door of a building with an AED inside)*
- *Where is the AED in this school?*
- *What other places have you seen an AED (Arena's, Shopping Malls, Grocery Stores, Hospitals, Medical Clinic, Places of Worship, Airports and many more!)*

It is always a good idea to play 'Spot the AED' in public to maintain awareness of where the nearest AED is. Educators can examine a map featured on the Alberta Public Access to Defibrillation Program website to discuss the locations of other AEDs in their community. (Please be aware that some owners of AEDs have not yet registered them with the program, or in some instances they have registered the AED but requested the information not be shared on the public website so the list may not be inclusive of all AEDs in the community).

[AHS Heart Safe- AED Map & Site Listing](#)

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Activity 2

Students should be encouraged to practice CPR on a pillow or other soft object. Sweaters or jackets may be placed on the pillow to simulate a mannequin. Students should first be asked to indicate on themselves where the hands need to be placed to perform CPR. An easy way to find the correct spot is to stick one hand in the armpit, then drag it across the chest until the heel of the hand is directly in the center. The second hand will then go on top of the first hand.

When performing CPR, students should kneel on the floor. The floor is the only place where CPR should be performed. Chairs, couches, and beds are too bouncy to work, so a patient needs to be moved to the floor if they are on any of these surfaces. The patient needs to be lying flat on their back. Students should lock their elbows in place and push the chest down using the weight of their body.

A few good practice songs for keeping the beat include 'Baby Shark' 'Stayin' Alive' and 'Another one bites the dust' and these can be played while student's practice. They may be paired off into teams, with one person counting while the other does compressions. Focus on compression-only CPR so there is no need for breaths and aim for a couple rounds of 30 compressions if possible.

Students should be encouraged to practice what they have learned, and share that knowledge with others in their lives, such as caregivers, guardians, coaches, family members and friends.

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Important Phone/Text Numbers

- Community Resources – [211 Alberta](#)
- Crisis Text Line - Text CONNECT to 741741
- [Family Violence – Find Supports](#) – 310-1818
- [Health Link](#) – 811
- [Income Supports](#) – 1-866-644-5135
- [Indian Residential School Survivors and Family, IRSSS](#) – 1-866-925-4419
- [Kids Help Phone](#) – 1-800-668-6868 or text CONNECT to 686868
- [MyHealth.Alberta.ca: List of Important Numbers](#)
- [Physician & Family Support Program](#) - 1-877-767-4637
- [Talk Suicide](#)

Social supports

- [Provincial Family Violence Treatment Program | Alberta Health Services](#)
- [Home - Centre for Suicide Prevention \(suicideinfo.ca\)](#)
- [Get Help | Talk Suicide Canada](#)
- [Shelters Directory - Alberta Council of Women's Shelters \(acws.ca\)](#)
- [Home - FCSSAA](#) Family and community support services of Alberta
- [Family violence – Find supports | Alberta.ca](#)
- [Sexual Assault Response Team | Alberta Health Services](#)
- [Hope for Wellness Helpline \(sac-isc.gc.ca\)](#)
- [Métis and Indigenous Children's Services offices | Alberta.ca](#)
- [Child and youth addiction and mental health \(alberta.ca\)](#)
- [Grief: Helping Children Understand \(alberta.ca\)](#)
- [Grieving Together | Alberta Health Services](#)
- [Pflag Canada | For All Families](#)
- [Growing up online \(alberta.ca\)](#)
- [Stress in Children and Teenagers \(alberta.ca\)](#)
- [Children and Suicide \(alberta.ca\)](#)

Emergencies & Disasters

- [Alberta Ready – Are You Prepared?](#)
- [Flood Resources & Safety Information](#)
- [Wildfire Resources](#)