


Content Area: Science	Course: Medical Emergencies	Grade Level: 11-12
 American Red Cross	R14 Vision of a Learner <ul style="list-style-type: none"> • Think Critically & Creatively • Collaborate & Communicate Effectively • Demonstrate Empathy • Take Initiative • Persevere • Adapt and Adjust 	
Unit Titles	Length of Unit	
Before Giving Care	1 week	
Checking an Injured or Ill Person	2-3 days	
Cardiac Emergencies and Giving CPR/Using an AED	1 week	
Choking	2-3 days	
Sudden Illness	2 weeks	
Injuries	2 weeks	

Environmental Emergencies	2 weeks
Emergency Moves/Special First Aid Situations	2 weeks
Preventing Injuries	1 week
Certification	1 week

Strands	Course Level Expectations
	<ul style="list-style-type: none"> ● Explain how to activate and work with the emergency medical services (EMS) system. ● Understand legal concepts as they apply to lay responders, including consent and the purpose of Good Samaritan laws. ● Identify how to reduce the risk of disease transmission when giving care. ● Demonstrate how to check a person who is responsive for life-threatening and non-life-threatening conditions. ● Explain how to check an injured or ill person who appears to be unresponsive. ● Recognize the signs and symptoms of a heart attack, and describe appropriate first aid care for a person who is showing these signs and symptoms. ● Describe the links in the Cardiac Chain of Survival. ● Demonstrate CPR and use of an automated external defibrillator (AED) for a person who is in cardiac arrest. ● Demonstrate first aid care for a person who is choking. ● Recognize the signs and symptoms of shock, and describe appropriate first aid care for a person who is showing these signs and symptoms. ● Recognize the signs and symptoms of, and describe appropriate first aid care for, the following sudden illnesses: breathing emergencies, diabetic emergencies, seizures, fainting and stroke.

- | | |
|--|--|
| | <ul style="list-style-type: none">● Describe methods used to control external bleeding, including the application of direct pressure and the application of a commercial tourniquet.● Demonstrate the application of direct pressure to control external bleeding.● Explain when a commercial tourniquet should be used, and describe the basic principles of using a tourniquet.● Recognize the signs and symptoms of, and describe appropriate first aid care for, the following injuries: burns; muscle, bone and joint injuries; and head, neck and spinal injuries (including concussion).● Recognize the signs and symptoms of, and describe appropriate first aid care for, the following environmental injuries and illnesses: heat-related illnesses, cold-related illnesses and poisoning.● Differentiate between the necessary treatment of adults, children and infants● Explain how to prevent injuries |
|--|--|

Unit Title	Before Giving Care	Length of Unit	1 week
-------------------	---------------------------	-----------------------	--------

Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • What is your role in an emergency?
Standards*	<ul style="list-style-type: none"> • NGSS: HS-LS1-2 • Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	<ul style="list-style-type: none"> • Emergency action steps • Lowering the risk of infection • Good Samaritan Laws
Key Vocabulary	medical emergency, EMS system, emergency medical responder (EMR), emergency medical technician (EMT), advanced EMT, paramedic, Good Samaritan Laws, lay responders, emergency situation, emergency condition, consent, implied consent, pathogen, bloodborne pathogen, airborne pathogen, PPE, breathing barriers, face shield, face mask, reaching assist, throwing assist, wading assist

Unit Title	Before Giving Care	Length of Unit	1 week
-------------------	---------------------------	-----------------------	--------

Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> ● the emergency action steps, check, call, care ● what to look for when sizing up the scene and forming an initial impression ● the criteria for calling 911 vs. starting care ● the proper safety precautions to take in an emergency ● fundamental Good Samaritan laws 	<ul style="list-style-type: none"> ● list the four key action steps responders can take in an emergency to make a difference in the outcome for an injured or ill person ● make a decision to take action in an emergency situation ● recognize life-threatening situations and conditions that necessitate calling 911 ● describe the information a responder should be prepared to give an emergency dispatcher ● clean after an exposure incident ● appropriately remove disposable gloves

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Checking an Injured or Ill Person	Length of Unit	2-3 days
-------------------	--	-----------------------	----------

Inquiry Questions (Engaging & Debatable)	<ul style="list-style-type: none"> • How do we appropriately assess an emergency situation?
Standards*	<ul style="list-style-type: none"> • Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	<ul style="list-style-type: none"> • Checking a responsive person • Checking an unresponsive person
Key Vocabulary	SAMPLE, allergy, medication, symptoms, medical history, responsive, unresponsive, recovery position, head to toe

Unit Title	Checking an Injured or Ill Person	Length of Unit	2-3 days
-------------------	--	-----------------------	----------

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> the mnemonic SAMPLE to interview an injured or ill person appropriate recovery positions 	<ul style="list-style-type: none"> check an injured or ill person who is responsive for life-threatening and non-life-threatening conditions check an injured or ill person who is unresponsive and take appropriate next steps

Assessments:	Medical emergency scenarios, written assessment
---------------------	---

Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual
---------------------------	---

Unit Title	Cardiac Emergencies and Giving CPR/Using an AED	Length of Unit	1 week
-------------------	--	-----------------------	--------

Inquiry Questions (Engaging & Debatable)	How should we respond to a cardiac emergency?
Standards*	<ul style="list-style-type: none"> • NGSS: HS-LS1-2 • Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	<ul style="list-style-type: none"> • The cardiac chain of survival • CPR
Key Vocabulary	heart attack, cardiac arrest, CPR, compression only CPR, AED device, breathing barrier, aspirin, cardiovascular disease, congenital heart disease, agonal breaths, sudden cardiac arrest, cardiac chain of survival, defibrillation, ventricular fibrillation, ventricular tachycardia, chest compression, rescue breath, tracheostomy

Unit Title	Cardiac Emergencies and Giving CPR/Using an AED	Length of Unit	1 week
-------------------	--	-----------------------	--------

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> • first aid care for a heart attack • how cardiac arrest differs from a heart attack • causes of cardiac arrest • the links in the Cardiac Chain of Survival • what to do if the chest does not rise with rescue breaths • when it is appropriate to perform compression only CPS • how defibrillation works to restore an effective heart rhythm • what precautions to take when using an AED device 	<ul style="list-style-type: none"> • recognize the signs and symptoms of a heart attack • perform CPR • perform compression only CPR • use an AED device appropriately • properly maintain an AED device

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Choking	Length of Unit	2-3 days
-------------------	----------------	-----------------------	----------

Inquiry Questions (Engaging & Debatable)	How should we respond to someone that is choking?
Standards*	<ul style="list-style-type: none"> Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	Caring for Choking Recognizing choking hazards
Key Vocabulary	back blows, abdominal thrusts, chest thrust

Unit Title	Choking	Length of Unit	2-3 days
-------------------	----------------	-----------------------	----------

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> • the risk factors that cause choking • common choking hazards in small children 	<ul style="list-style-type: none"> • recognize when someone is choking • care for someone that is choking

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Sudden Illness	Length of Unit	2 weeks
Inquiry Questions (Engaging & Debatable)	How can we recognize the type of medical emergency when we are faced with one?		
Standards*	<ul style="list-style-type: none"> • NGSS: HS-LS1-2 • Common Core State Standards: RST.11-12.8 		
Unit Strands & Concepts	Recognizing the type of medical emergency Deciding on an appropriate response to the medical emergency		
Key Vocabulary	shock, cardiovascular emergency, diabetic emergency, seizure, heart attack, stroke, asthma, long term control medications, quick relief (rescue) medications, triggers, nebulizer, inhaler, anaphylaxis, hypoglycemia, hyperglycemia, diabetes, glucose, insulin, epilepsy, aura, febrile seizure, absence seizure, convulsion, grand mal seizure, fainting, stroke, acute illness, chronic illness, respiratory distress, hyperventilation, respiratory arrest, epinephrine, epinephrine auto injector, antihistamine, transient ischemic attack, FAST		

Unit Title	Sudden Illness	Length of Unit	2 weeks
-------------------	-----------------------	-----------------------	---------

Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> the signs and symptoms of shock the differences between cardiovascular emergencies, diabetic emergencies, fainting, seizures, strokes and breathing emergencies 	<ul style="list-style-type: none"> provide appropriate care for someone in shock respond to cardiovascular emergencies, diabetic emergencies, fainting, seizures, strokes and breathing emergencies

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Injuries	Length of Unit	2 weeks
-------------------	-----------------	-----------------------	---------

Inquiry Questions (Engaging & Debatable)	How do we administer basic first aid?
Standards*	<ul style="list-style-type: none"> • NGSS: HS-LS1-2 • Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	Controlling bleeding Application of a tourniquet First aid techniques for burns, broken/fractured bones and concussions
Key Vocabulary	tourniquet, hemostatic dressing, nosebleed, chemical burn, electrical burn, critical burn, sprain, strain, dislocation, fracture, RICE, concussion, internal bleeding, blunt trauma, penetrating trauma, wound, closed wound, bruise (contusion), open wound, external bleeding, abrasion, laceration, avulsion, puncture wound, tetanus, dressing, bandage, traumatic amputation, splint, paralysis, paraplegia, quadriplegia, brain contusion, brain hematoma, diffuse axonal injury, rib fracture, flail chest, lung contusion, sucking chest wound, pneumothorax, paradoxical breathing

Unit Title	Injuries	Length of Unit	2 weeks
-------------------	-----------------	-----------------------	---------

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> symptoms/indications of various injuries including open wounds; burns; muscle, bone and joint injuries; and head, neck and spinal injuries 	<ul style="list-style-type: none"> control external bleeding using direct pressure use a tourniquet respond to common injuries including open wounds; burns; muscle, bone and joint injuries; and head, neck and spinal injuries

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Environmental Emergencies	Length of Unit	2 weeks
-------------------	----------------------------------	-----------------------	---------

Inquiry Questions (Engaging & Debatable)	How do we recognize and treat heat/cold related injuries and poisoning?
Standards*	<ul style="list-style-type: none"> • NGSS: HS-LS1-2 • Common Core State Standards: RST.11-12.8
Unit Strands & Concepts	Heat/cold related injuries Poisoning Animals that carry diseases
Key Vocabulary	thermoregulation, heat cramps, heat exhaustion, heat stroke, hypothermia, frostbite, poisoning, drug overdose, alcohol poisoning, carbon monoxide poisoning, rabies, urushiol, venomous

Unit Title	Environmental Emergencies	Length of Unit	2 weeks
-------------------	----------------------------------	-----------------------	---------

Critical Content: My students will Know ...	Key Skills: My students will be able to (Do) ...
<ul style="list-style-type: none"> the signs and symptoms of heat related illness, cold related illness and poisoning what animals pose risk of poisoning or rabies infections what plants can cause infections 	<ul style="list-style-type: none"> treat heat related illness, cold related illness and poisoning recognize poisonous/venomous animals recognize infectious plants

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Emergency Moves/Special First Aid Situations	Length of Unit	2 weeks
Inquiry Questions (Engaging & Debatable)	How can we move an injured person? How do we treat special first aid situations?		
Standards*	<ul style="list-style-type: none"> Common Core State Standards: RST.11-12.8 		
Unit Strands & Concepts	Moving an injured person Injuries particular to children		
Key Vocabulary	walking assist, two person seat carry, clothes drag, blanket drag, ankle drag, croup, febrile seizure, epiglottitis		

Unit Title	Emergency Moves/Special First Aid Situations	Length of Unit	2 weeks
-------------------	---	-----------------------	---------

Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> • when it's appropriate to move an injured person • the symptoms of abuse • how injuries differ in children 	<ul style="list-style-type: none"> • move an injured person • recognize when injuries are consistent with abuse • recognize injuries particular to children

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Unit Title	Injury Prevention	Length of Unit	1 week
Inquiry Questions (Engaging & Debatable)	How can we prevent injuries?		
Standards*	● Common Core State Standards: RST.11-12.8		
Unit Strands & Concepts	Injury prevention		
Key Vocabulary	vehicle safety, car seat safety, fire safety, electrical shock, suffocation, strangulation, drowning		

Unit Title	Injury Prevention	Length of Unit	1 week
-------------------	--------------------------	-----------------------	--------

Critical Content: My students will Know...	Key Skills: My students will be able to (Do)...
<ul style="list-style-type: none"> • what car seats are appropriate for each age child • elements of an emergency action plan • home safety steps to eliminate various injuries 	<ul style="list-style-type: none"> • develop an emergency action plan • create a safe household

Assessments:	Medical emergency scenarios, written assessment
Teacher Resources:	redcrosslearningcenter.org Red Cross Instructors Manual Red Cross Participants Manual

Upon completion of course material, material will be reviewed and certification exams will be completed (1 week)