



The Geriatric Experience



Geriatric Sensitivity Simulation

*Curriculum with
RealCare™ Geriatric Simulator*



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About the Author

Denise Bodart is the RealCare Product Manager at Realityworks and has worked in education for over 25 years. Ms. Bodart earned her B.A. in Elementary Education and Fine Arts Administration at St. Olaf College. She later received an advanced degree in Educational Administration from William Howard Taft University.



Employability Skills Program; The RealCareer Business and Marketing Career Exploration Program, and Integrating Social Media into Your FACS Program.

Ms. Bodart has over 20 years of instructional design and professional development experience in grades K-12. She previously worked for the Core Knowledge Foundation as a professional development consultant and Otter Creek Institute as their new product development and professional development coordinator. She also worked with a local group to start a private non-denominational K-8 school where she taught art and music.

As the RealCare Product Manager, Denise works with all things relating to RealCare® Baby and the other Total Parenting Experience products including Shaken Baby, Fetal Alcohol Syndrome Baby, Drug-Affected Baby and the Pregnancy Profile Simulator. Denise is the coordinator of the RealCare Baby User Group, a national forum open to all RealCare customers. Ms. Bodart is a frequent blog contributor as well as webinar presenter on RealCare-related topics monthly. She also coordinates internal on-site and online training for the RealCare Baby product line.

Ms. Bodart has been a presenter at the national Association for Career and Technical Education and numerous state education conferences.

In addition to *The Geriatric Experience* curriculum, Ms. Bodart has also authored *Using the RealCare Program for Career Exploration*, *The RealCareer*



Introduction

RealCare™ Geriatric Simulator

The RealCare™ Geriatric Simulator is a complete weighted garment designed to allow both male and female wearers to experience many of the effects of aging. The following list shows some of the effects that users will experience while wearing the RealCare Geriatric Simulator:

- Visual impairment
- Restricted range of motion
- Decreased mobility
- Stooped posture
- Loss of sensation in hands
- Arthritis in hands
- Joint stiffness
- Loss of strength
- Fatigue
- Change in body image
- Decreased sense of balance

While wearing the simulator:

- **Do not** walk on steep inclines or slippery surfaces.
- **Do not** wear high-heeled or slippery shoes.
- **Do not** twist side to side while bending over.
- **Do not** make any abrupt movements.
- **Do not** jump or run.
- **Do not** engage in strenuous activities, especially in hot weather, to avoid the risk of heat stroke.
- **Immediately discontinue** using this product if you feel any sharp pain, dizziness or tingling in your fingers.
- **Use proper lifting technique** when lifting the RealCare Geriatric Simulator and while wearing the simulator by squatting down to lift with your legs, not your back.

RealCare™ Geriatric Simulator

The RealCare Geriatric Simulator is one size fits all.

Instructions for Use can be found in Lesson 7.

Wearing the RealCare™ Geriatric Simulator

It is recommended that the RealCare Geriatric Simulator be worn for at least 20 minutes to feel the effects.

Warnings

The RealCare Geriatric Simulator is to be used for educational purposes only. Misuse of this product can cause serious injury.



Cleaning Instructions

To clean the Simulator Weight Vest and other components:



Remove small sand-filled weight-bag inserts from the Weight Vest



Hand-wash only.



Do not bleach.



Do not wring or twist.



Line-dry, smooth by hand.



Do not iron.

The accompanying curriculum helps participants learn about the many physical changes due to aging. This will also help participants gain a sense of empathy and sensitivity to the challenges these changes have on daily life.

Lesson Structure

Each lesson begins with an overview, lesson objectives, and a Lesson at a Glance table which lists the lesson activities, materials required, suggested preparation steps, and approximate class time.

Lesson Sections

The overview is followed by the actual lesson, which will contain some of the sections described below. Most lessons are designed to be completed within 45 minutes.

FOCUS

Every lesson begins with a FOCUS activity intended to capture participants' attention. This may be in the form of a small or large class discussion, game, review of previous lesson information, or demonstration. During this activity, participants are introduced to the topic of the lesson.

LEARN

The LEARN activity in each lesson varies in its presentation mode. It may be a slide presentation, group activity, or a demonstration.

REVIEW

The majority of lessons end with a REVIEW activity intended to briefly review the lesson's key messages or main points; or, if it is the last lesson in the unit, the REVIEW activity will serve as the unit formative assessment. Participant scores on these short assessments will help you determine what concepts or skills may need reinforcement or review.

Curriculum Structure

The Geriatric Experience curriculum is composed of the following lessons. Approximate lesson times are included.

Lesson	Title	Approximate Time
1	Exploring Geriatrics and Gerontology	85-160 minutes
2	Visual Impairment	55-75 minutes
3	Declining Mobility Due to Aging	70-100 minutes
4	Impact of Aging on Bones and Joints	70-115 minutes
5	Hearing Loss	45-50 minutes
6	Cognitive Changes With Aging	45 minutes
7	The Geriatric Experience	70-145 minutes
8	Amazing Aging	40-100 minutes
9	Post-Summative Assessment	30 minutes
	Total	8 ½ - 13 ½ hours

The lessons are listed in the most appropriate order to present. If you choose to skip a lesson, simply move on to the next one. However, be aware that the pre-test and post-summative assessment cover the information presented in all lessons.

Pre-Test

Directions: The following questions will ask you about your knowledge of aging and the issues or challenges that it brings. Please answer the questions by circling the best answer or writing your response in the space provided.

1. Geriatrics is:

Description

- ☐ A progressive degeneration of the retina
- ☐ Diseases that damage the optic nerve
- ☐ The most common diabetes-related eye condition
- ☐ When all or part of the retina comes off
- ☐ A painless cloudy area in the lens of the eye blocking light to the retina
- ☐ When the small central portion of the retina deteriorates

2. Indicate whether each of the following is a part of gerontology. (Circle yes or no)

Scientific study of old age	Yes	No
Nursing home care	Yes	No
The process of aging	Yes	No
Social aspects of aging	Yes	No
Cognitive aspects of aging	Yes	No

5. A key issue in maintaining independence as one ages is _____

3. Over what age do some sources define as 'geriatric?'

- a. 70
- b. 65
- c. 80
- d. 100

4. Match the visual impairment with the descriptions in the next column.

- a. Glaucoma
- b. Macular Degeneration
- c. Cataracts
- d. Diabetic Retinopathy
- e. Retinal Detachment
- f. Retinitis Pigmentosa

(Please continue on other side)



6. Match the following body parts to the corresponding impact that aging has on it.

- a. Skin
- b. Hair
- c. Height
- d. Hearing
- e. Vision
- f. Bones
- g. Body
- h. Brain
- i. Heart
- j. Lungs

Description

- _____ It must work harder during activity.
- _____ Metabolism slows down.
- _____ Lenses become less flexible.
- _____ You lose several inches due to changes in posture.
- _____ Is less elastic and more wrinkled.
- _____ Cells are reduced in number.
- _____ Less oxygen is brought to the body.
- _____ Changes make high frequencies difficult to recognize.
- _____ Length of nerves and blood flow decreases.
- _____ Become less dense and less strong.

7. Name two devices that assist mobility:

8. True or False: Decreased range of motion is caused by loss of fluid between the joints.

- a. True
- b. False

9. True or False: Exercise cannot increase a person's range of motion and flexibility.

- a. True
- b. False

10. Osteoarthritis is _____.

- a. when bones grow in size
- b. fluid in the brain
- c. when the protective cartilage on the ends of bones wears down over time
- d. when you lose inches and appear slumped over

11. Identify whether following are potential causes of hearing loss due to aging.

Yes	No	Diabetes
Yes	No	High blood pressure
Yes	No	Colon cancer
Yes	No	Exposure to loud sounds
Yes	No	Eating saturated fats
Yes	No	Certain toxic medications
Yes	No	Changes to inner ear
Yes	No	Changes to the brain
Yes	No	Change in nerve pathway from ear to brain
Yes	No	Alcoholism

12. Identify whether the following may be signs of age-related hearing loss.

Yes	No	Asking people to repeat themselves
Yes	No	Being a speed reader
Yes	No	Crying excessively
Yes	No	Misunderstanding what others are saying
Yes	No	Straining to understand a conversation
Yes	No	Humming loudly
Yes	No	Difficulty hearing around background noise
Yes	No	Difficulty following a conversation when two or more people are speaking
Yes	No	Turning TV volume down

13. Name two devices that assist hearing.



14. True or False: Aging inevitably results in the loss of all cognitive abilities. There is nothing you can do to slow down or stop the decline.

- a. True b. False

15. True or False: Someone has dementia if the symptoms interfere with daily activity and impact more than one area of brain function.

- a. True b. False

16. Circle the recommendations that could help to slow down age-related cognitive changes.

- a. Increase stress
- b. Engage your mind
- c. Eat fruits and vegetables containing antioxidants
- d. Eat peanut oil
- e. Use organizational tools like a calendar
- f. Stop visiting your doctor on a regular basis

17. Remember the saying, "Use it or _____ it!"

18. Empathy is.....

19. True or False: The global life expectancy increased from 64 to 85 in 2011.

- a. True b. False

20. Why has life expectancy increased in recent years?

- a. New medical discoveries
- b. A cure for Alzheimer's was found
- c. Increased public health efforts to improve living conditions
- d. People are eating their Wheaties

Pre-Test Answer Key

Directions: The following questions will ask you about your knowledge of aging and the issues or challenges that brings. Please answer the questions by circling the best answer or writing your response in the space provided.

1. Geriatrics is **the branch of healthcare dealing with the problems of aging and diseases of the aged.**

2. Indicate whether each of the following is a part of gerontology. (Circle yes or no)

Scientific study of old age **Yes** No

Nursing home care Yes **No**

The process of aging **Yes** No

Social aspects of aging **Yes** No

Cognitive aspects of aging **Yes** No

3. Over what age do some sources define as 'geriatric?'

- a. 70
- b. 65**
- c. 80
- d. 100

4. Match the visual impairment with the descriptions in the next column.

- a. Glaucoma
- b. Macular Degeneration
- c. Cataracts
- d. Diabetic Retinopathy
- e. Retinal Detachment
- f. Retinitis Pigmentosa

Description

f A progressive degeneration of the retina

a Diseases that damage the optic nerve

d The most common diabetes-related eye condition

e When all or part of the retina comes off

c A painless cloudy area in the lens of the eye blocking light to the retina

b When the small central portion of the retina deteriorates

5. A key issue in maintaining independence as one ages is **mobility**.



6. Match the following body parts to the corresponding impact that aging has on it.

- a. Skin
- b. Hair
- c. Height
- d. Hearing
- e. Vision
- f. Bones
- g. Body
- h. Brain
- i. Heart
- j. Lungs

Description

- i It must work harder during activity.
- g Metabolism slows down.
- e Lenses become less flexible.
- c You lose several inches due to changes in posture.
- a Is less elastic and more wrinkled.
- b Cells are reduced in number.
- j Less oxygen is brought to the body.
- d Changes make high frequencies difficult to recognize.
- h Length of nerves and blood flow decreases.
- f Become less dense and less strong.

7. Name two devices that assist mobility:

wheelchair, scooter, walker, cane
prosthetics, crutches

8. True or False: Decreased range of motion is caused by loss of fluid between the joints.

- a. True
- b. False

9. True or False: Exercise cannot increase a person's range of motion and flexibility.

- a. True
- b. False

10. Osteoarthritis is _____.

- a. When bones grow in size
- b. Fluid on the brain
- c. When the protective cartilage on the ends of bones wears down over time
- d. When you lose inches and appear slumped over

11. Identify whether following are potential causes of hearing loss due to aging.

<u>Yes</u>	No	Diabetes
<u>Yes</u>	No	High blood pressure
Yes	<u>No</u>	Colon cancer
<u>Yes</u>	No	Exposure to loud sounds
Yes	<u>No</u>	Eating saturated fats
<u>Yes</u>	No	Certain toxic medications
<u>Yes</u>	No	Changes to inner ear
Yes	<u>No</u>	Changes to the brain
<u>Yes</u>	No	Change in nerve pathway from ear to brain
Yes	<u>No</u>	Alcoholism

12. Identify whether following may be signs of age-related hearing loss.

<u>Yes</u>	No	Asking people to repeat themselves
Yes	<u>No</u>	Being a speed reader
Yes	<u>No</u>	Crying excessively
<u>Yes</u>	No	Misunderstanding what others are saying
<u>Yes</u>	No	Straining to understand a conversation
Yes	<u>No</u>	Humming loudly
<u>Yes</u>	No	Difficulty hearing around background noise
<u>Yes</u>	No	Difficulty following a conversation when two or more people are speaking
Yes	<u>No</u>	Turning TV volume down

13. Name two devices that assist hearing.

Hearing aids, cochlear implants, bone anchored hearing systems, assistive listening devices



14. True or False: Aging inevitably results in the loss of all cognitive abilities. There is nothing you can do to slow down or stop the decline.

- a. True **b. False**

15. True or False: Someone has dementia if the symptoms interfere with daily activity and impact more than one area of brain function.

- a. **True** b. False

16. Circle the recommendations which may help to slow down age-related cognitive changes.

- a. Increase stress
b. Engage your mind
c. Eat fruits and vegetables containing antioxidants
d. Eat peanut oil
e. Use organizational tools like a calendar
f. Stop visiting your doctor on a regular basis

17. Remember the saying, "Use it or **lose** it!"

18. Empathy is.....

The ability to understand and share feelings of another.

19. True or False: The global life expectancy increased from 64 to 85 in 2011.

- a. True **b. False**

20. Why has life expectancy increased in recent years?

- a. New medical discoveries**
b. A cure for Alzheimer's was found
c. Increased public health efforts to improve living conditions
d. People are eating their Wheaties

Lesson 1 – Exploring Geriatrics & Gerontology



Lesson Overview

In this lesson, participants will be introduced to geriatrics and gerontology. Participants will research and explore related healthcare careers working with geriatric patients.

Lesson Objectives

After completing this lesson, participants will be able to:

- Define geriatrics and gerontology
- Identify several professions in the healthcare field related to geriatrics and gerontology
- Consider if any of the occupations covered in class are appropriate for them

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• Internet access • PowerPoint Presentations Slides 2 and 3	1. Ensure Internet access for all participants 2. Prepare to show Presentation Slides 2 and 3	10 minutes
LEARN	• <i>Career Exploration Brainstorming Web</i> handout • List of geriatric-related careers from brainstorming activity • Library and Internet resources • <i>Career Exploration Research Summary</i> handout	1. Print/photocopy the Career Exploration Brainstorming Web handout – one for each participant. Have the list of careers available from the brainstorming activity as well as the list in this lesson. 2. Print/photocopy the <i>Career Exploration Research Summary</i> handout – one for each participant	30-90 minutes
REVIEW	• Questions for panel - optional	1. Contact 3-5 local geriatric-related professionals inviting them to participate in the panel discussion. 2. Set up the room with panel seating in the front with audience facing the panel.	45-60 minutes

Lesson 1 – Exploring Geriatrics & Gerontology

FOCUS: Defining Geriatrics and Gerontology

10 minutes

Purpose:

There are many terms that we use to describe our aging population: elderly, seniors, aging, retired, older people, and so on. There are specifically recognized terms for this population in healthcare. This activity will help participants understand the terms ‘geriatrics’ and ‘gerontology.’

Materials:

- Internet access
- Presentation Slides 2 and 3

Facilitation Steps:

1. According to the U.S. Department of Health and Human Services, here are some key statistics about the aging of America:
 - The older population—persons 65 years or older—numbered 44.7 million in 2013. By 2060, there will be about 98 million older persons, more than twice their number in 2013.
 - People 65+ represented 14.1% of the population in the year 2013 but are expected to grow to be 21.7% of the population by 2040.
2. Divide the class into two groups. Have participants in one group define term ‘geriatric’ and the second group define the term ‘gerontology.’ Give everyone 5 minutes to look on the Internet or other sources available.

3. Bring the class back together and write the terms ‘geriatric’ and ‘gerontology’ on a whiteboard. Ask participants from each group to give their definitions. Write a few of them on the board.
4. Show Presentation Slide 2. According to the Oxford Dictionary, geriatrics is *“the branch of medicine or social science dealing with the health and care of old people.”* Show Presentation Slide 3. Gerontology is *“the scientific study of old age, the process of aging, and the particular problems of old people.”*

Here is another one to consider:

Geriatrics is the branch of healthcare dealing with the problems of aging and diseases of the aged. It is related to the science of gerontology, which is the study of the aging process in all its aspects, social as well as biological. Geriatrics grows increasingly important as modern medicine and a rising standard of living lengthen life expectancy and increase the proportion of aged persons in society. ¹

While there is no set age when a person may find themselves under the care of a geriatric care provider, some sources use the age of 65 and older as a defining age.

5. Given the overwhelming projections for growth of older Americans over the next 30-50 years, one would expect the number of related health occupations to increase as well. We will explore health occupations relating to the care of our aging population.

Lesson 1 – Exploring Geriatrics & Gerontology

LEARN: Research Project

30-90 minutes

Purpose:

The purpose of this activity is to have participants take a closer look at geriatric and gerontology-related career options. Participants will research one career of interest identified from the original brainstorming session. Information learned from the research will be shared with the group via a brief presentation.

Materials:

- *Career Exploration Brainstorming* handout
- List of geriatric careers from the brainstorming session
- Library and Internet resources
- *Career Exploration Research Summary* handout

Facilitation Steps:

1. Divide the class into 5 groups. Make a photocopy of the *Career Exploration Brainstorming Web* handout for each group. Explain the purpose of the activity, distribute it, and give participants 5 minutes to complete it.
2. After 5 minutes, call the groups back together. Ask each group to share one of the careers they identified as relating to geriatrics or gerontology. Write these on a master list on a whiteboard or similar item. Continue calling upon each group until all careers that were brainstormed are written down on the master list
3. Review the list of careers and have participants choose one of the careers to explore further. (You may give each participants a copy of the *List of Geriatric Careers* if you choose.) Depending on how many participants are in your class, you can decide whether or not to

allow multiple participants to research the same career.

4. Give participants the *Career Exploration Research Summary* handout. Tell them that they can use the Internet or other sources in the library for their research. Here are a few helpful websites:
www.bls.gov
<http://www.bls.gov/ooh/>
www.careerinfonet.org
www.careervoyages.gov
<http://careerplanning.about.com/od/occupations/a/car>
http://www.myplan.com/careers/index.php_eer_briefs.htm
5. Give participants one or two class periods to complete their research. You can also assign this as homework. Participants should prepare a short 5-minute presentation about this career including the information on the summary sheet.
6. Have each participant present their chosen geriatric-related career to the group.
7. Here is a suggested grading rubric for the class presentation:

30 points – Completed all information on the *Career Exploration Research Summary* handout

20 points – Prepared for the presentation

20 points – The presentation content was clear, concise, and gave a good understanding of the chosen career

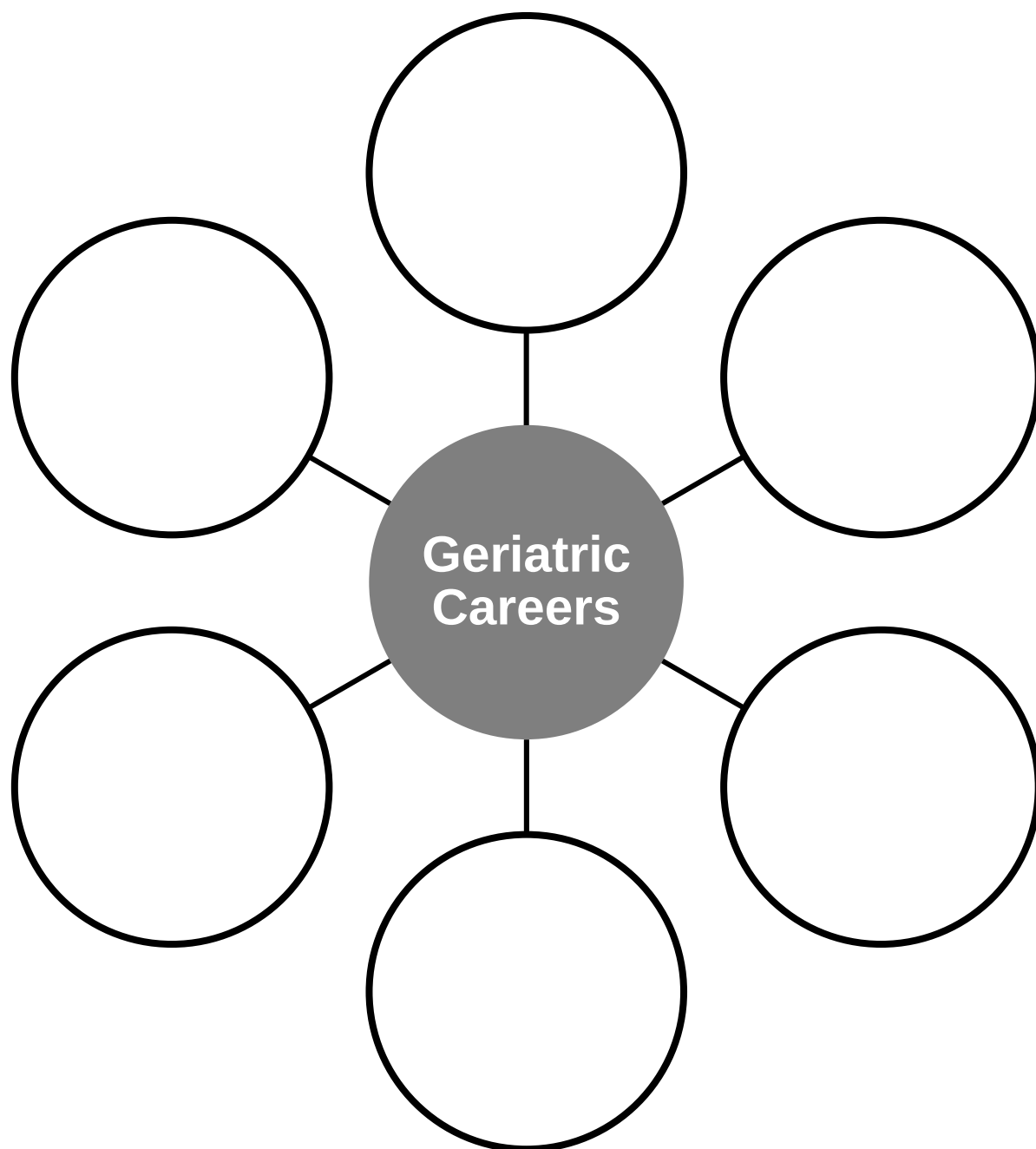
20 points – Demonstrated the ability to think critically, taking information from other sources to create something new

10 points – Demonstrated time management skills by delivering a well-planned 5-minute presentation



Career Exploration Brainstorming Web

Directions: With your group, brainstorm as many careers relating to geriatrics and gerontology as you can in five minutes. Write each career identified in a circle. Draw additional circles as needed.



Career Exploration Research Summary

Name: _____ **Date:** _____

Identify and research one career relating to geriatrics. Complete this worksheet for your career choice. Possible sources for information include your school library, public library, the Bureau of Labor Statistics website, the Occupational Outlook Handbook website, and other career-related websites on the Internet.

Career name: _____

Degree or licenses required: _____

Length of time to complete training or earn degrees: _____

Average starting salary: _____

Job outlook: _____

Short job description:

Skills a person should have to be successful in this career:

Sources used for this project:



List of Geriatric-Related Careers

This is a list of potential careers relating to geriatrics. Add any additional careers that participants may have brainstormed that are not on the list.

- Geriatrician
- Gerontologist
- Registered Nurse (RN)
- Certified Nursing Assistant (CNA)
- Geriatric Nursing Assistant (GNA)
- Hospice Worker
- Nursing Home Administrator
- Social Worker
- Family Services Coordinator
- Psychologist
- Geriatric Case Manager
- Home Health Aide
- Recreational Therapist
- Mental Health Clinician
- Integrated Care Manager
- Memory Care Practitioner
- Geriatric Speech-Language Pathologist
- Medicare Office Manager
- Recreation Coordinator
- Geriatric Pharmacist
- Physical Therapist
- Physician Assistant
- Podiatrist



Lesson 1 – Exploring Geriatrics and Gerontology

REVIEW: Career Panel Discussion

45-60 minutes

Purpose:

To hear from real professionals who work in geriatric-related careers.

Materials:

- Panel of local professionals who work in a variety of related careers (3-5)

Facilitation Steps:

1. Contact local geriatric-related professionals from a variety of settings such as hospitals, clinics, or social service organizations and associations, and invite them to attend a panel discussion in your class.
2. The day of the panel discussion, set up your space so that there is a table with seats for all panel members at the front of the room. If sound is an issue, have a microphone available.
3. Invite participants in the audience to ask questions to panel members. Remind participants ahead of time to keep questions relevant to work. You may ask participants to submit questions in advance if desired.

Lesson 2 – Visual Impairment



Lesson Overview

Changes in vision occur as we age. About 65% of all people who are visually impaired worldwide are aged 50 and older. In this lesson, participants will experience a variety of age-related visual impairments to sensitize them to the challenges that visual loss has on the daily life of older adults.

Lesson Objectives

After completing this lesson, participants will be able to:

- Define and recognize a series of common age-related visual impairments and conditions
- Experience a series of age-related visual impairments and conditions
- Increase sensitivity to the feelings engendered when vision is impaired and independence may be compromised

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>Visual Impairment Experiences Chart</i> • PowerPoint Presentations Slides 4-11	1. Print/photocopy the <i>Visual Impairment Experiences Chart</i> – one for each participant 2. Prepare to show Presentation Slides 4-11	15 minutes
LEARN	• <i>Visual Impairment Experiences Chart</i> • Visual Impairment Simulation Glasses • Props for simulation tasks – book, button-down shirt, pill bottle, phone, pen and paper	1. Find the props for simulation tasks	30-45 minutes
REVIEW	• <i>Visual Impairment Experiences Chart</i>	None	10-15 minutes

Lesson 2 – Visual Impairment

FOCUS: Common Visual Impairments Experienced by Older Adults

15 minutes

Purpose:

There are several types of visual impairments that older adults may experience as they age. Participants will be introduced to six different conditions and the impact each has on sight.

Materials:

- *Visual Impairment Experience Chart*
- Presentation Slides 4-11

Facilitation Steps:

1. Share this statistic with the participants:
 - About 65% of all people who are visually impaired are aged 50 and older, while this age group comprises about 20% of the population. With increasing elderly population in many countries, more people will be at risk of visual impairment due to chronic eye diseases and aging processes.
 - 82% of people living with blindness are aged 50 and above.²

2. The cost of vision problems is significant, both to the individual and society at large.

A majority of costs (55%) are incurred by the 65 and older age group. The total economic burden of eye disorders among the U.S. population is estimated to be \$138 billion per year.³ Show the PowerPoint Slides 4 and 5 with the economic burden estimated by cost category and age group in million.

3. Give participants the *Visual Impairment Experience Chart*. Tell participants that there are six visual impairment conditions

that they will be learning about. As you discuss each condition, they should take notes on their chart handout.

4. Show Presentation Slides 6-11.

- **Glaucoma** - is the name for a group of eye diseases that damage the optic nerve, which carries information from the eye to the brain. When the nerve is damaged, you can lose your vision.
Impact: You slowly lose peripheral or side vision first. Thereafter, central vision may decrease.⁴
- **Macular Degeneration** – is the leading cause of severe vision loss in people over age 60. It occurs when the small central portion of the retina, known as the macula, deteriorates.
Impact: Dark, blurry areas in the center of vision⁴
- **Cataracts** - is a painless, cloudy area in the lens of the eye that blocks the passage of light to the retina.
Impact: cloudy, fuzzy, or foggy vision⁴
- **Diabetic Retinopathy** - is a disease of the retina which is the most common diabetes-related eye condition.
Impact: Damage to the retina leading to poor vision and/or blindness⁴
- **Retinal Detachment** - When part or all of the retina comes off (detaches from) the back of the eye.
Impact: floaters and flashes of light can be warning signs. Also sudden loss of peripheral vision can be a sign.⁴
- **Retinitis Pigmentosa** – is progressive degeneration of the retina, the light

sensitive membrane that coats the inside of the eyes.

Impact: Peripheral (or side) vision gradually decreases and eventually is lost in most cases. Central vision is usually preserved until late in these conditions. ⁴

Visual Impairment Experience Chart

Use this organizer to take notes on each of the visual impairments. Also, add comments on your experience after you participate in the simulation exercise.

Visual Impairment	Impact on Vision	How I Felt	How would this impact my daily life as an older adult?
Glaucoma			
Macular Degeneration			
Cataracts			
Diabetic Retinopathy			
Retinal Detachment			
Retinitis Pigmentosa			

Lesson 2 – Visual Impairment

LEARN: Visual Impairment Simulation Experience

30-45 minutes

Purpose:

The purpose of this activity is to have participants experience a variety of common age-related visual impairments. Participants will gain a greater sensitivity and empathy for the impact that visual impairments have on the daily life of older adults.

Materials:

- *Visual Impairment Experience Chart*
- Visual Impairment Simulation Glasses
- Props for simulation exercise tasks – book, button-down shirt, pill bottle, phone, pen and paper

Facilitation Steps:

1. Divide the class into five or six groups. Give each of the small groups one of the visual impairment simulation glasses. In their small groups, participants will each try on the simulation glasses and do some of the following tasks:
 - Read a page out of a book
 - Button a shirt
 - Open a pill bottle
 - Dial a phone
 - Write a grocery list

You can also add some of your own ideas for experiencing visual impairment while performing daily tasks.

2. After each person in your group has an opportunity to try on the simulation glasses, take notes on the Visual Impairment Experience Chart in the “How I Felt” column.
3. Have each group keep passing along the various Visual Impairment Simulation Glasses so that all participants have the opportunity to try on each pair and do the tasks. Participants should complete the “How I Felt” column after each simulation experience.

Lesson 2 – Visual Impairment

REVIEW: Reflection

10-15 minutes

Purpose:

Participants will reflect on the visual impairment simulation experience and consider how it would impact their daily life as an older adult.

Psychologically, it can also lead to depression, irritability, social isolation, and loss of memory.⁵

Materials:

- *Visual Impairment Experience Chart*

Facilitation Steps:

1. Have participants complete the last column on the *Visual Impairment Experiences Chart*, “How would this impact my daily life as an older adult?” Give participants 10 minutes to complete this activity.
2. Go through each of the visual impairments and ask participants to share how they feel each of these conditions would impact their daily life. What could they do to help compensate for it?
3. Now that participants have experienced what it is like to be visually impaired as an older adult, consider what it would be like to work with a geriatric patient in a healthcare setting who has these types of conditions.
 - How would some of these conditions impact daily life for patients living in a nursing home or assisted living facility?
4. If you provide care to older adults experiencing one or more of these conditions, what could you do to be helpful or make things easier for them? Share some of these thoughts with participants. Visual impairment can interfere with daily living significantly. A person can become more dependent. It can lead to inaccuracy in visual-motor coordination, decreased sensitivity to contrast, depth perception is reduced, which can lead to difficulty walking and driving. And further, it could lead to accidents and falls.



Lesson 3 – Declining Mobility Due to Aging



Lesson Overview

Aging is generally associated with a decrease in mobility. Fatigue, pain, and musculoskeletal changes are just a few of the reasons for declining mobility as we age. Participants will experience the challenges of reduced mobility and better understand the impact it has on daily activities.

Lesson Objectives

After completing this lesson, participants will:

- Understand how the aging process impacts mobility
- Experience declining mobility in a simulation exercise
- Have increased sensitivity as to how a decline in mobility can impact older adults physically, socially, cognitively, and emotionally
- Learn ways to slow down the decline of mobility

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• PowerPoint Presentations Slides 12-15	1. Prepare to show Presentation Slides 12-15	10 minutes
LEARN	• <i>RealCare Geriatric Simulator: weight vest, ankle weights, wrist weights</i> • <i>Declining Mobility Simulation</i> handout	2. Find the RealCare Geriatric Simulator for participants 3. Print/photocopy the <i>Declining Mobility Simulation</i> handout (one per participant)	30-45 minutes
REVIEW	• PowerPoint Presentation Slide 16 • <i>Slowing the Decline in Mobility</i> handout • Internet access for students	1. Prepare to show Presentation Slides 12-15 2. Print/photocopy the <i>Slowing the Decline in Mobility</i> handout (one per group)	30-45 minutes

Lesson 3 – Declining Mobility Due to Aging

FOCUS: Defining Mobility and the Top 10 Signs of Aging

10 minutes

Purpose:

Mobility is a key issue in maintaining independence as one ages. Mobility refers to a person's ability to move himself or herself independently and safely from one place to another. When mobility is compromised it can lead to depression, frustration, or loss of social interaction, just to name a few. Lesson activity will help participants understand that a decline in mobility is a natural part of aging, but there are things one can do to slow down this decline.

Materials:

- Presentation Slides 12-15

Facilitation Steps:

1. Begin by defining mobility. Show Presentation Slide 12.
2. Ask participants how they define mobility and write their answers on the board.
3. Show Presentation Slide 13. Mobility refers to a person's ability to move himself or herself independently and safely from one place to another. Mobility is a key issue in maintaining independence as one ages. Ask participants why mobility is so important to maintaining independence.
4. Explain to participants that declining mobility is a natural part of aging. Share with them the *Top 10 Signs of Aging* (Presentation Slides 14 and 15)⁶.

- **Skin** becomes less elastic and more wrinkled. Fingernail growth is also slowed down.
- **Hair** cells are reduced in number, making hair appear thinner. Hair pigment cells are also declining, turning hair white or gray.
- **Height** – You lose several inches due to changes in posture due to compression of joints, spinal bones, and spinal discs.
- **Hearing** – Changes in the ear make high frequency sounds harder to hear and changes in speech tone less clear.
- **Vision** – More people need reading glasses due to the lenses of the eyes becoming less flexible. Decreased night vision, acuity, and blurred vision can also increase.
- **Bones** become less dense and less strong. Osteoporosis can occur.
- **Body** – Metabolism slows and hormonal changes lead to decreased muscle mass, producing more fat.
- **Brain** weight, length of nerves, and blood flow decreases. Memory changes occur, usually with some memory loss or slowing of recall.
- **Heart** – The heart becomes less efficient and must work harder during activity. A gradual loss of energy and strength will occur over time.
- **Lungs** become less efficient bringing oxygen to the body.

Other signs of aging you may experience include sleep difficulties or change in kidney function. Today we will be concentrating on the changes to our body, heart, lungs, and height.

Lesson 3 – Declining Mobility Due to Aging

LEARN: Declining Mobility Simulation

30-45 minutes

Purpose:

This activity will help participants have a better understanding of how declining mobility impacts the body and daily life. Participants will wear a series of mobility restriction devices that will help them experience the loss of mobility and freedom of movement firsthand.

Materials:

- *RealCare™ Geriatric Simulator: weight vest, ankle weights, wrist weights*
- *Declining Mobility Simulation* handout

Facilitation Steps:

1. Explain to participants that they will be concentrating on the changes to the body, heart, lungs, and height. Use the *Declining Mobility Simulation* organizer to take notes on each of the mobility simulations. The weight vest and wrist/ankle weights will result in fatigue, restricted freedom of movement, slower movement, and stooped posture.
2. It is preferred that you have more than one RealCare™ Geriatric Simulator for this activity, as it is easier to rotate participants through the simulation exercise faster. If you have only one RealCare Geriatric Simulator, set up a station in a corner of the room and have pairs of participants rotate through together. One will assist the other in putting on the weight vest and wrist/ankle weights. Then they will switch. It is recommended to put the weight vest on first, then secure the ankle and

wrist weights. Make sure you have all of these pieces on at the same time. Keep them on for at least 5-10 minutes. Try some of these activities:

- Bend over to pick up something (pencil or pen)
 - Walk up and down stairs
 - Tie shoes
 - Sit down and stand up several times
 - Toss and catch a ball
3. As you do the activities, pay attention to the impact you feel on your body in general, the heart, and the lungs. They should record what they feel in the space provided. For example, a) body – increased overall fatigue, feeling slow, heavy b) heart – heartrate may have increased c) lungs – breathing may become more difficult, increased speed d) height – may become stooped due to weight.
 4. If you have participants waiting to complete the declining mobility simulation activity, suggest that they work on the final activity in this lesson, *Slowing the Decline in Mobility*.
 5. After all participants have had a chance to complete the declining mobility simulation activity, debrief the group. Ask students how they felt. What did it do to their bodies overall? How did it change the way they moved? How did their heart and lungs feel? Were they able to easily stand up straight? How would it feel to live this way all day, every day?

Declining Mobility Simulation

Instructions: Use this organizer to take notes on how the mobility simulations impact various parts of your body. Put the weight vest, ankle, and wrist weights on at the same time. Keep them on for at least 5-10 minutes. Try some of these activities:

- Bend over to pick up something (pencil or pen)
- Walk up and down stairs
- Tie your shoes
- Sit down and stand up several times
- Toss and catch a ball
- Lift a heavy book

How it impacted my:	Weight Vest, Wrist and Ankle Weights
Body (general movement)	
Heart	
Lungs	
Height	

Lesson 3 – Declining Mobility Due to Aging

REVIEW: Slowing Down Mobility Decline

30-45 minutes

Purpose:

Participants will reflect on the declining mobility simulation experience and research ways to slow the decline.

Materials:

- *Slowing the Decline in Mobility* handout
- Internet access for students
- Presentation Slide 16

Facilitation Steps:

1. Divide the class into small groups of 3-5 participants. Give each group one of the *Slowing the Decline in Mobility* handouts. Share the scenario that is presented to the group: Your group works as a care team in a nursing home. Your group includes a Nursing Home Administrator, Certified Nursing Assistants, Registered Nurses, Integrated Care Manager, and Physical Therapist. This team has been given the task of researching and presenting ways that mobility decline in geriatric patients can be slowed.
2. Give the groups 30 minutes to research and complete the exercise.
3. Have each group share their list of recommendations on how they plan to prevent or slow the decline of mobility in their patients.
4. Here are some potential answers. Share any additional recommendations that were not shared by the groups.

- Implement a walking program
 - Build Functional Incidental Training into daily activity for the more frail patient⁷
 - Low impact exercise programs
 - Strength training
 - Programs to prevent obesity
 - Encouraging any physical activity
 - Removing all barriers to physical exercise. For example, ageism, financial constraints, or physical barriers may prevent participation
 - Implementing preventive interventions seeking to minimize the individual risk factors for mobility decline, such as obesity, sensory impairments, falls, or physical inactivity⁸
5. Ask participants what types of assistive devices they can think of that are used to help older adults with mobility issues? Show Presentation Slide 16.
 - Canes
 - Walkers
 - Scooters
 - Wheelchairs
 - Crutches
 - Prosthetic Device

Ask participants if they have ever had to use any sort of assistive device. How did it impact your movement? What was it like?

Slowing the Decline in Mobility

Scenario: Your group works as a care team in a nursing home. Your group includes a Nursing Home Administrator, Certified Nursing Assistants, Registered Nurses, Integrated Care Manager, and Physical Therapist. This team has been given the task of researching and presenting ways that mobility decline in geriatric patients can be slowed down. Write your findings in the space provided.

Recommendation	Source

Lesson 4 – Impact of Aging on Bones and Joints



Lesson Overview

As we age, the structure of bone changes and this results in loss of bone tissue. Joint movement becomes stiffer and less flexible. In this lesson, participants will experience age-related bone and joint changes in flexibility, strength, and range of motion.

Lesson Objectives

After completing this lesson, participants will:

- Understand how the aging process impacts flexibility and range of motion
- Experience decreased range of motion and flexibility in a simulation exercise
- Have increased sensitivity as to how a decreased range of motion and flexibility can impact older adults
- Learn ways to slow down stiffness and decreased range of motion

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• <i>The Impact of Aging on Bones and Joints Quiz</i>	1. Print/photocopy <i>The impact of Aging on Bones and Joints Quiz</i> (one per participant)	10 minutes
LEARN	• PowerPoint Presentations Slides 17-18 • <i>RealCare Geriatric Simulator knee restraints, elbow restraints, cervical collar, gloves</i> • <i>Use it or Lose it! Aging Joint and Bone Simulation</i> handout	1. Find the <i>RealCare Geriatric Simulator</i> for participants 2. Prepare to show the PowerPoint slides 3. Print/photocopy the <i>Use it or Lose It! Aging Joint and Bone Simulation</i> handout (one per participant)	45-90 minutes
REVIEW	• <i>Impact of Aging on Hands and Feet Reflection</i> handout	1. Print/photocopy the <i>Impact of Aging on Hands and Feet Reflection</i> handout (one per group)	15 minutes

Lesson 4 – Impact of Aging on Bones and Joints

FOCUS: Impact of Aging on Bones and Joints Quiz

10 minutes

Purpose:

This activity will see what participants already know about the impact of aging on bones and joints.

Materials:

- *The Impact of Aging on Bones and Joints Quiz*
- *The Impact of Aging on Bones and Joints Quiz Answer Key*

Facilitation Steps:

1. Begin by giving all of the participants the short quiz. Allow 5 minutes for participants to complete it.
2. Share the answers from the *The Impact of Aging on Bones and Joints Quiz Answer Key* found in this lesson.
3. Explain to participants that they will learn more about how aging impacts the range of motion, flexibility and strength from changes to bones and joints. They will have the chance to experience what it feels like firsthand.

QUIZ: The Impact of Aging on Bones and Joints

This is a short quiz to see what you know about the impact of aging on bones and joints. Answer the questions below.

- | | | | |
|-----|------|-------|--|
| 1. | True | False | As we age, bones become denser. |
| 2. | True | False | As you age, joint movement becomes stiffer and less flexible because the amount of lubricating fluid inside your joints decreases and the cartilage becomes thinner. |
| 3. | True | False | Decreased range of motion is caused by the loss of fluid between the joints. |
| 4. | True | False | It is never too late to increase your range of motion. |
| 5. | True | False | Exercise cannot increase a person's range of motion and flexibility. |
| 6. | True | False | Osteoarthritis, osteoporosis, and rheumatoid arthritis are more common in older people. |
| 7. | True | False | An inactive lifestyle causes bone wastage. |
| 8. | True | False | Stretching is not a good way to help maintain joint flexibility. |
| 9. | True | False | Few age-related changes to joints are caused by lack of exercise. |
| 10. | True | False | Older people can increase muscle mass and strength through muscle-strengthening activities. |

QUIZ ANSWER KEY: The Impact of Aging on Bones and Joints

1. True ☒ False As we age, bones become denser.
2. ☒ True False As you age, joint movement becomes stiffer and less flexible because the amount of lubricating fluid inside your joints decreases and the cartilage becomes thinner.
3. ☒ True False Decreased range of motion is caused by the loss of fluid between the joints.
4. ☒ True False It is never too late to increase your range of motion.
5. True ☒ False Exercise cannot increase a person's range of motion and flexibility.
6. ☒ True False Osteoarthritis, osteoporosis, and rheumatoid arthritis are more common in older people.
7. ☒ True False An inactive lifestyle causes bone wastage.
8. True ☒ False Stretching is not a good way to help maintain joint flexibility.
9. True ☒ False Few age-related changes to joints are caused by lack of exercise.
10. ☒ True False Older people can increase muscle mass and strength through muscle-strengthening activities.

Lesson 4 – Impact of Aging on Bones and Joints

LEARN: What Happens to Bones and Joints as We Age

45-90 minutes

Purpose:

Some age-related changes, such as wrinkles and grey hair, are inevitable. However, not all age-related changes are unavoidable. However, new research suggests that many factors associated with aging are due to inactivity, and that performing physical activity can help to reduce or reverse the effects. This activity will give participants a chance to experience the impact firsthand.

Materials:

- *RealCare™ Geriatric Simulator: Knee restraints, elbow restraints, cervical collar, and gloves*
- Presentation Slides 17 and 18
- *Use it or Lose it! Aging Joint and Bone Simulation* handout

Facilitation Steps:

1. Show Presentation Slide 17. Share the following information about the impact of aging on bones:

Bone is living tissue. As we age, the structure of bone changes and this results in loss of bone tissue. Low bone mass means that bones are weaker and places people at risk of breaks from a sudden bump or fall. Many aging adults are susceptible to osteoarthritis (the type of arthritis that affects bones by wearing down the cushion that pads the space between them).

Bones become less dense as we age for a number of reasons, including:

- An inactive lifestyle
- Calcium and other minerals are lost
- Hormonal changes in women (menopause triggers the loss of minerals in bone tissue).

- Hormonal changes in men (the gradual decline in some hormones leads to the later development of osteoporosis).⁹

Osteoporosis is a disease of low bone density that can cause an increased risk of fracture. According to the National Osteoporosis Foundation, osteoporosis and low bone mass affect 54 million Americans.

2. Show Presentation Slide 18. Share the following information about the impact of aging on joints: many aging adults are at risk of developing osteoarthritis (the type of arthritis that affects bones by wearing down the cushion that pads the space between them).

In a joint, the space between bones is cushioned by cartilage that lines your joints. There are other membranes and lubricating fluid in and around your joints. As you age, joint movement becomes stiffer and less flexible because the amount of lubricating fluid inside your joints decreases and the cartilage becomes thinner. Ligaments also tend to shorten and lose some flexibility, making joints feel stiff.¹⁰

Activity 1

1. Explain to participants that in this activity they will be concentrating on the changes to the bones and joints such as knees, elbows, and neck. Give participants the *Use it or Lose it! Aging Joint and Bone Simulation* organizer to take notes on each of the exercises they complete. The knee, elbow, and neck restraints will result in stiffness, restricted range of motion, and much less flexibility.

2. It is preferred that you have more than one RealCare™ Geriatric Simulator, as it is easier to rotate participants through the simulation exercise faster. If you have only one RealCare Geriatric Simulator, set up a station in a corner of the room and have pairs of participants rotate through together. One will assist the other in putting on the knee, elbow, and neck restraints, then they will switch. Make sure you have all of these pieces on at the same time. Keep them on for at least 5-10 minutes.
3. If you have participants waiting to complete the aging joint and bone simulation activity, suggest that they begin Activity 2.
4. After all participants have had a chance to complete the simulation activities, debrief the group. Ask students how they felt. What did it do to their knees, elbows and neck? How did it change the way they moved? Were they able to do each exercise? What would it be like to live with a condition like this every day?
3. Have participants pair up. Explain that they will be feeling what it is like to have arthritic hands. Give each group transparent tape. Have one participant tape the other participant's thumb and index finger together. Also, tape the three other finger joints of their dominant hand together. This will restrict the movement, simulating stiffness due to arthritis. Try the following activities:
 - Cut with a scissors
 - Write your name with a pen
 - Open a child-proof pill bottle
 - Drink from a glass
 - Pick up and count change
4. Have participants switch places and repeat step 3.
5. Hands also may experience a loss of sensation associated with aging. The sense of touch also includes being aware of pain, temperature, pressure, vibration, and body position. Skin, muscles, tendons, joints, and internal organs have nerve endings (receptors) that detect these sensations. With aging, you may have reduced or changed sensations.¹²

Activity 2

1. The impact of aging on bones and joints in the hands and feet is especially significant. This is because of the amount we use our hands and feet in our day-to-day activities. The most common form of age-related pain and stiffness in hands and feet is osteoarthritis. It happens over time due to age.
2. Define osteoarthritis:
Osteoarthritis is the most common form of arthritis, affecting millions of people worldwide. It occurs when the protective cartilage on the ends of your bones wears down over time.¹¹

Getting older is the greatest risk factor for osteoarthritis, but it doesn't have to be an inevitable consequence. There are things you can do to slow the progression. Staying active with regular exercise, maintaining a healthy weight, and other treatments may slow progression of the disease and help improve pain and joint function.

Have participants pair up. Explain that they will be experiencing a loss of sensation in their hands. Give each group a set of thin gloves. Try the following activities:

- Cut with a scissors
 - Write your name with a pen
 - Open a child-proof pill bottle
 - Drink from a glass
 - Open an envelope
 - Pick up and count change
6. Have participants switch places and repeat step 5.
 7. Think about the amount of average time you spent on your feet in a lifetime. By the time we reach 65, most of us will have walked more than 75,000 miles three times around the equator), and bore several million tons of weight on our feet. Over time, this does take a toll on our feet and alters the structure of the feet. Here are some of the most common changes that occur in the feet:

- Increase in foot size and width
 - The bottoms of the feet lose the fatty pads that cushion the feet and the skin becomes thinner
 - Flattening of the arch
 - Ligaments and tendons become looser and weaker
 - Dry, flaky skin
 - Thick and discolored toenails
 - Crooked toes and feet¹³
8. Explain to participants that today they are going to ‘walk a mile in an aging person’s shoes’ in order to understand and empathize with what geriatric patients experience. The condition that will be simulated from the list just shared is the bottoms of the feet losing the fatty pads that cushion feet and the skin becomes thinner.
9. Have dried peas or corn in a container for participants to use. Have participants place several dried peas or corn kernels in the sole of each shoe to simulate the pain associated with age-related loss of these fatty pads. Have them walk a short distance around the room.

Use it or lose it! Aging Joint and Bone Simulation

Instructions: Use this organizer to take notes on how the simulation impacts the range of motion and flexibility in your knees, elbows and neck. Put the knee restraints, arm restraints, and cervical collar on at the same time. Keep them on for at least 5-10 minutes. Try these exercises and document your experience.

Exercise	Impact on Knees, Elbows and Neck
Sit to Stand: Start by sitting in a chair with your feet flat on the floor. After sitting for a few seconds, use your legs to stand up. Finish by sitting back in the chair.	
Range of Motion: Sit in a chair with both arms extended out in front of you. Raise your hands above your head and hold them in a prayer position, with your palms together and your thumbs pointing behind you. Then slowly lower your hands, still palm-to-palm, in front of your chest.	
Neck Stretch: You can do this stretch while standing or sitting. Keep your feet flat on the floor, shoulder-width apart. Slowly turn your head to the right until you feel a slight stretch. Hold the position for 10 to 30 seconds. Turn your head to the left and hold the position for 10 to 30 seconds. Repeat at least 3 to 5 times.	
Heel to Toe: Stand with your feet hip width apart. Start slowly walking forward by putting your left heel in front of your right toe and then your right heel in front of your left toe (as if walking on a tightrope). Take at least 15 steps and then turn around and go back the other way.	

Lesson 4 – Impact of Aging on Bones and Joints

REVIEW: Reflection

15 minutes

Purpose:

Participants will reflect on the *Impact of Aging on Hands and Feet* simulation experience.

Materials:

- *Impact of Aging on Hands and Feet Reflection* handout

Facilitation Steps:

1. Give each of the participants *the Impact of Aging on Hands and Feet Reflection* handout. Give them 10 minutes to complete the questions.
2. Have participants share some of their insights and experiences from the answers to the questions.

Impact of Aging on Hands and Feet Reflection

Think about how your hands and feet felt during the simulation activities? Answer the questions below about your experience.

1. What was the most difficult part of having arthritic hands? Why?
2. How did the loss of the sensation in your hands impact your ability to function?
3. How important is touch in daily life and why?
4. How did your feet feel as you walked during the simulation exercise? If you had to live with this condition, how would it impact your daily activities?
5. Why do you think it's important for healthcare professionals working with geriatric patients to understand the impact of aging on hands and feet?

Lesson 5 – Hearing Loss



Lesson Overview

Age-related changes in hearing occur as we age. Approximately one in three people in the United States between the ages of 65 and 74 has hearing loss, and nearly half of those older than 75 have difficulty hearing.¹⁴ In this lesson, participants will experience the impact of hearing loss to sensitize them to the challenges that it has on the daily life of older adults.

Lesson Objectives

After completing this lesson, participants will be able to:

- Experience age-related hearing loss
- Increase sensitivity to the feelings engendered when hearing is impaired and independence may be compromised

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• PowerPoint Presentations Slides 19-20	1. Prepare to show Presentation Slides	10 minutes
LEARN	• Cotton balls or ear plugs • <i>Hearing Loss Reflection</i> handout • Internet access	1. Find the props for simulation tasks 2. Print/photocopy the <i>Hearing Loss Reflection</i> handout (one per participant)	30 minutes
REVIEW	• PowerPoint Presentation Slide 21	1. Prepare to show Presentation Slide	5-10 minutes

Lesson 5 – Hearing Loss

FOCUS: Causes of Age-Related Hearing Loss

10 minutes

Purpose:

Age-related hearing loss may be caused by a variety of things. Participants will learn about the causes of age-related hearing loss and learn what to watch for in older adults to discern hearing loss.

Materials:

- Presentation Slides 19 and 20

Facilitation Steps:

1. Share this statistic with the participants:

Approximately one in three people in the United States between the ages of 65 and 74 has hearing loss, and nearly half of those older than 75 have difficulty hearing.¹⁴

2. Show Presentation Slide 19. Ask participants what they think could cause age-related hearing loss. Write these on the board.

3. Share these potential causes of hearing loss:

- Certain medications that are toxic to sensory cells in the ears
- Noise-induced loss caused by long-term exposure to loud sounds
- High blood pressure
- Diabetes
- Changes to the inner ear
- Changes to the middle ear
- Changes to nerve pathways from ear to brain
- Combination of age-related loss and noise-induced loss¹⁵

4. Regardless of the cause, if you work with older adults, these may be signs of age-related hearing loss. Show Presentation Slide 20. Go through each one.

- Misunderstanding what others are saying
- Asking people to repeat themselves
- Straining to understand a conversation
- Difficulty hearing when on the phone
- Difficulty hearing when there is background noise
- Difficulty following a conversation when two or more people speak at once
- Others seem to mumble or not speak clearly
- Turning the TV volume up too high

Lesson 5 – Hearing Loss

LEARN: Hearing Loss Simulation Experience

30 minutes

Purpose:

The purpose of this activity is to have participants experience age-related hearing loss. Participants will gain a greater sensitivity and empathy for the impact that hearing loss can have on daily life of older adults.

Materials:

- Cotton balls or ear plugs
- *Hearing Loss Reflection* handout
- Internet access

Facilitation Steps:

1. Give each of the participants the *Hearing Loss Reflection* handout. They should answer these questions after completing the hearing loss simulation activity.
2. Give each participant cotton balls or ear plugs to put into both ears.
3. Do some of the following activities:
 - Play music
 - Have participants try to talk to each other
 - Give instructions and see if they can hear you
 - Have participants talk to each other on cell phones
 - Play background music and have participants talk to each other
4. After the participants have completed the reflection, ask for volunteers to share their answers.
5. There are many hearing loss simulators available for free on the Internet. Here are a few you could consider:
 - <http://www.hear-the-world.com/en/hearing-and-hearing-loss/hearing-loss-what-it-sounds-like.html>
 - <http://www.starkey.com/hearing-loss-simulator>
 - <http://www.hearinglikeme.com/facts/what-hearing-loss/hearing-loss-simulator-understanding-mild-and-moderate-hearing-loss>
 - <http://www.hearing-aid.com/Resources/interactive-tools>

Hearing Loss Reflection

Think about how your hearing loss impacted you during the simulation activities. Answer the questions below about your experience.

1. What was the most difficult part of hearing loss? Why?

2. How did the loss of the hearing impact your ability to function?

3. How important is hearing in daily life and why?

4. How could loss of hearing be dangerous to older adults?

5. What could you do to help an older adult with hearing loss if you were as a healthcare worker?



Lesson 5 – Hearing Loss

REVIEW: Assistive Devices

10 minutes

Purpose:

Participants will learn about various assistive devices that can help older adults who suffer from hearing loss to hear better or deal with it more effectively.

Materials:

- Presentation Slide 21

Facilitation Steps:

1. Show Presentation Slide 21. Ask participants if they or anyone in their family have ever used an assistive device to help hearing.
2. Go through each of the assistive devices listed on the slide.¹⁵
 - Hearing aids: These are electronic instruments you wear behind your ear or in your ear to amplify sound.
 - Cochlear implants: These are small electronic devices that are surgically implanted in the inner ear to help provide a sense of sound to deaf or severely hard of hearing person.
 - Bone anchored hearing systems: These bypass the ear canal and middle ear to use your natural body's ability to transfer sound through bone conduction.
 - Assistive listening devices: These can be used with phones, tablets, or a system in a theater or auditorium. They amplify the sounds you want to hear.
 - Lip reading or speech reading: People pay close attention as they watch the speaker's mouth and body movements.
3. If you provide care to older adults experiencing hearing loss, what could you do to be helpful or make things easier for them? Share some of these thoughts with participants. Hearing loss can interfere with daily living significantly. It can be difficult to understand and follow a doctor's advice. It can be dangerous when it means the person doesn't hear phones, doorbells, and smoke alarms. It can lead to feeling of isolation when it is hard to talk to family and friends.

Lesson 6 – Cognitive Changes with Aging



Lesson Overview

Age-related cognitive changes are inevitable. However, the extent to which it occurs and the speed by which each individual experiences the onset can vary widely. This lesson will help participants understand what it is like to experience dementia and age-related cognitive decline.

Lesson Objectives

After completing this lesson, participants will be able to:

- Experience cognitive changes due to aging
- Understand the difference between dementia and old age
- Increase sensitivity to the confusion and agitation engendered when cognitive abilities are impaired

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• PowerPoint Presentations Slide 22 • Internet access • <i>Cognitive Processes Impacted by Aging Chart</i>	1. Prepare to show Presentation Slide 2. Ensure Internet accessibility 3. Print/photocopy the <i>Cognitive Processes Impacted by Aging Chart</i> (one per participant)	10 minutes
LEARN	• PowerPoint Presentation Slide 23 • Cotton balls or ear plugs • Visual Impairment Simulation Glasses • Gloves with unpopped popcorn kernels in them • Props for simulation activities: belt, books (with paragraph chosen), pen and paper, button-down shirt, pill bottle • <i>Dementia Sensitivity Simulation</i> handout	1. Find the props for simulation activities 2. Prepare to show Presentation Slide 3. Have the Visual Impairment Simulation Glasses ready to use 4. Print/photocopy the <i>Dementia Sensitivity Simulation</i> handout (one per participant)	30 minutes
REVIEW	• None	1. None	5 minutes

Lesson 6 – Cognitive Changes with Aging

FOCUS: Age-Related Cognitive Changes

10 minutes

Purpose:

Age-related cognitive changes are inevitable. But the degree to which each person is affected can vary widely. This activity will help participants understand what common age-related cognitive conditions are.

Materials:

- PowerPoint Presentation Slide 22
- Internet access
- *Cognitive Processes Impacted by Aging Chart*

Facilitation Steps:

1. Show Presentation Slide 22.
Aging inevitably results in the loss of all cognitive abilities. There is nothing you can do to slow down or stop the decline.
2. Ask students for a show of hands who believe this to be true. Share the fact that research, in fact, does not support these claims. There are some cognitive areas that remain stable and also things one can do that may show down the cognitive changes that occur due to aging. There are basic cognitive processes that are impacted due to aging. Some of these are: attention, working memory, long term memory, perception, language/verbal ability, problem solving, and spatial orientation.
3. Divide the class into small groups of two to three participants. Give each group one of the different cognitive areas to research. Each group is responsible for researching how aging impacts that cognitive process. Give participants 10 minutes to research.
4. Give each participant the *Cognitive Processes Impacted by Aging Chart*. Have each group present their findings. Participants should take notes on the *Cognitive Processes Impacted by Aging Chart*.
5. Explain to participants that these are all part of the normal aging process. If you notice memory lapses in older family members, don't automatically assume it is dementia! Some amount of memory loss is totally normal as we age. To be considered "dementia," the person's symptoms must interfere with daily activities and affect more than one area of brain function, such as memory, language, communication, or judgment.¹⁶

Cognitive Processes Impacted by Aging Chart

Use this organizer to take notes on each of the cognitive process and how it is impacted by aging.

Cognitive Process	How Impacted by Aging
Attention	
Working Memory	
Long Term Memory	
Perception	
Language/ Verbal Ability	
Problem Solving	
Spatial Orientation	

Lesson 6 – Cognitive Changes with Aging

LEARN: Dementia Sensitivity Simulation

30 minutes

Purpose:

The purpose of this activity is to have participants experience age-related dementia. Participants will gain a greater sensitivity and empathy for the impact that cognitive changes can have on the daily life of older adults.

Materials:

- Presentation Slide 23
- Cotton balls or ear plugs
- *Visual Impairment Simulation Glasses*
- Gloves with un-popped popcorn kernels in them
- Props for simulation activities: belt, books (with paragraph chosen), pen and paper, button-down shirt, pill bottle
- *Dementia Sensitivity Simulation* handout

Facilitation Steps:

1. Show Presentation Slide 23. Point out that many older adults complain of increased memory lapses as they age, and a major focus of research has been to try to distinguish memory declines attributable to normal aging from those that are indicative of premature, accelerated aging, particularly Alzheimer's disease.
2. Explain to participants that they are going to be given 5 tasks to do in a short amount of time. During this exercise, they will be experiencing the sensory and memory losses of dementia. Divide the class into five different small groups. Each small group should be given the following:
 - One pair of the Visual Impairment Simulation Glasses
 - One pair of gloves with popcorn kernels inside of them
 - Cotton balls or ear plugs for each member

The idea is to have participants experience sensory loss which can lead to confusion and cognitive impairment on basic day-to-day tasks.

3. Have each member of the group take turns doing each of the following activities within two minutes. Use a cell phone or clock with a second hand as a timing device.
 - Buckle a belt
 - Read a paragraph from a book
 - Sign their name
 - Button a shirt
 - Open a pill bottle
4. After the participants have completed the *Dementia Sensitivity Simulation* handout, ask for volunteers to share their answers.

Dementia Sensitivity Simulation

Complete the questions below after completing the simulation activity.

1. Which of the simulation activities were you able to complete within two minutes? Check all that you completed.

☐ Buckle a belt
☐ Read a paragraph from a book
☐ Sign their name
☐ Button a shirt
☐ Open a pill bottle

2. How did the loss of the hearing, touch and vision impact your ability to function?
How did you feel about working under pressure?

3. What could you do to help an older adult with dementia if you were as a healthcare worker?

Lesson 6 – Cognitive Changes with Aging

REVIEW: Compensating For or Slowing Down Age-Related Cognitive Changes

5 minutes

Purpose:

Participants will learn about a variety of interventions that can sharpen cognitive processes and help slow down age-related cognitive changes.

Materials:

- None

Facilitation Steps:

1. After debriefing the participants about their simulation experience, ask what they think one could do to slow down age-related cognitive changes.
2. Share these suggestions with participants:¹⁷
 - Reduce stress
 - Keep working your mind – engaging in challenging cognitive tasks is important
 - Maintain good health with regular visits to your doctor
 - Eat healthy fruits and vegetables containing antioxidants and fats such as olive oil
 - Use active strategies such as following a routine, taking extra time to process new information, use organizational tools like a calendar
3. The most important thing to remember is “Use it or lose it!”

Lesson 7 – The Geriatric Experience



Lesson Overview

The lesson will give participants a fully immersive geriatric experience. By ‘walking in the shoes’ of an older adult, participants will increase their understanding and gain empathy for the physical changes that occur as we age.

Lesson Objectives

After completing this lesson, participants will be able to:

- Experience physical changes due to aging
- Understand what it means to be empathetic
- Increase empathy and understanding of what it is like to age and the impact it has on daily life

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• PowerPoint Presentations Slide 24 • <i>Empathy Self-Assessment</i>	1. Prepare to show Presentation Slide 2. Print/photocopy the <i>Empathy Self-Assessment</i> (one per participant)	10 minutes
LEARN	• Safety Information found in curriculum • <i>RealCare Geriatric Simulator</i> • Visual Impairment Simulation Glasses • Walker or cane (optional) • <i>The Geriatric Experience Checklist</i> • Props for geriatric experience (pill bottle, pen, paper, button-down shirt, glass or water and pitcher, chair, cell phone, newspaper, jacket, comb, belt, coins)	1. Find the props for simulation activities 2. Have the <i>Geriatric Simulator</i> ready to use 3. Have the Visual Impairment Simulation Glasses ready to use 4. Print/photocopy <i>The Geriatric Experience Checklist</i> (one per participant)	30-90 minutes
REVIEW	• <i>Reflection Rubric</i>	1. Print/photocopy the <i>Reflection Rubric</i> (one per participant)	30-45 minutes

Lesson 7 – The Geriatric Experience

FOCUS: Empathy and Respect for Older Adults

10 minutes

Purpose:

Society today is very focused on youth. There are many misconceptions as well as negative stereotypes and beliefs that need to be overcome. This activity will help participants understand what empathy is and how they can become more empathetic towards older adults. This is especially important as it applies to geriatric patients.

Materials:

- PowerPoint Presentation Slide 24
- *Empathy Self-Assessment*

Facilitation Steps:

1. Show Presentation Slide 24. Define empathy as the ability to understand and share the feelings of another.
2. Give participants the *Empathy Self-Assessment*. Give them 5 minutes to complete it. Let them know that the answers are confidential. It is meant as a tool to reflect on how empathetic they are and identify areas they may wish to improve upon.
3. The more ‘yes’ answers that were chosen by the participant, the more characteristics they have as an empathetic person.

Empathy Self-Assessment

Take this self-assessment and decide for yourself if you need to improve.

- | | | |
|------------------------------|-----------------------------|--|
| Yes ☐ | No ☐ | I have a general interest in the welfare of other people. |
| Yes ☐ | No ☐ | I have a warm personality. |
| Yes ☐ | No ☐ | I am flexible when dealing with situations. |
| Yes ☐ | No ☐ | I am alert and can pick up on how others are feeling. |
| Yes ☐ | No ☐ | I am able to listen objectively to other people. |
| Yes ☐ | No ☐ | I am able to cope with egocentric personalities. |
| Yes ☐ | No ☐ | I am sought after by other people to listen to anxieties and fears. |
| Yes ☐ | No ☐ | My friends would not call me self-absorbed. |
| Yes ☐ | No ☐ | I am able to focus on the person who I am speaking with without getting distracted. |
| Yes ☐ | No ☐ | I understand the difference between sympathy and empathy. |
| Yes ☐ | No ☐ | I have a variety of life experiences that help me have a broad understanding of people. |
| Yes ☐ | No ☐ | Others see me as adaptable, flexible, and spontaneous. |
| Yes ☐ | No ☐ | I am able to maintain my own health and don't get wrapped up in other people's problems. |
| Yes ☐ | No ☐ | I am patient and kind. |
| Yes ☐ | No ☐ | Others would describe me as humble, not conceited. |

Lesson 7 – The Geriatric Experience

LEARN: The Geriatric Simulation Experience

30-90 minutes

Purpose:

The purpose of this activity is to have participants wear the *RealCare Geriatric Simulator* to experience a fully immersive geriatric experience.

Materials:

- RealCare Geriatric Simulator
- Visual Impairment Simulation Glasses
- Walker
- Props for simulation tasks: (pill bottle, pen, paper, button-down shirt, glass or water and pitcher, chair, cell phone, newspaper, jacket, comb, belt, coins)

Facilitation Steps:

1. Explain to participants that today they are going to have a fully immersive experience about what it feels like to age. Have the RealCare Geriatric Simulator ready to wear. Review the safety information found in the Introduction with the participants.
2. Ask participants if they have any questions or concerns regarding how to safely wear and move in the RealCare Geriatric Simulator.
3. Instructor note: The RealCare Geriatric Simulator has been expertly designed so that the person wearing the garment may experience many of the effects of aging. Participants may be surprised at the physical sensations they feel. Participants need to follow directions carefully as they use the simulator to best understand the physical changes and challenges the aging body goes through.
4. Demonstrate the features of the RealCare Geriatric Simulator by choosing a participant to wear the Simulator while you point out the features.
5. The Geriatric Sensitivity Simulation Experience: If you only have one Geriatric Simulator, you will have to allow for enough time or class periods to rotate through the experience. Or you may wish to set up a station somewhere in the room where students can go in pairs to complete the experience.
6. Give each participant *The Geriatric Experience Checklist*. Have participants work in pairs. One will assist the other into the suit. Both participants should have the opportunity to wear the complete suit and complete all of the tasks on the list.



Instructions for Use



1. Check the contents of the package to ensure that every piece listed is included.
2. Work with a partner for assistance in putting on the RealCare Geriatric Simulator.



Ankle weights

3. Put one ankle weight on each ankle.
Secure them tightly around each ankle.



Weight vest

4. With assistance from a partner, put the weight vest on. Adjust the Velcro straps until it is a secure fit.



Knee restraint

5. Put one knee restraint on each knee.
Pull them tightly for a snug fit.



Elbow restraint

6. Put one elbow restraint on each elbow.
Pull them tightly for a snug fit.



Cervical collar

7. Put the cervical collar around your neck.
Strap it tightly enough so it is secure
without cutting off circulation or air flow.



Wrist weights

8. Put one wrist weight on each wrist.
Some users might prefer to add one more
weight per wrist for a fuller simulation
effect. Pull tightly for a snug fit.



Gloves

9. Pull the gloves tightly over each hand.



Visual impairment glasses

10. Choose the visual impairment glasses
you desire and put them on.

Walker

11. Unfold the walker and adjust it to
the proper height.



Geriatric Experience Checklist

Instructions: Do each task while wearing the Geriatric Simulator. Record your observations.

Task	Rating of difficulty to complete the task 1(easy) – 5 (hard)					What did you observe about your body as you completed the task?
	1	2	3	4	5	
Open a pill bottle						
Sign your name with a pen						
Walk up & down stairs (with walker or cane if available)						
Button a shirt						
Pour a glass of water from a pitcher						
Stand up and sit down on a chair						
Pick up and count 5 coins						

The Geriatric Experience Checklist (page 2)

Instructions: Do each task while wearing the Geriatric Simulator. Record your observations.

Task	Rating of difficulty to complete the task 1(easy) – 5 (hard)					What did you observe about your body as you completed the task?
	1	2	3	4	5	
Tie your shoes						
Use a cell phone						
Read a newspaper						
Open a door						
Put on a jacket						
Comb your hair						
Put on a belt						

Lesson 7 – The Geriatric Experience

REVIEW: Reflection

30-45 minutes

Purpose:

Participants will reflect on how the simulation experience has changed the way they see and feel about older adults.

- I learned that sensitive and empathetic caregivers need to have these ATTITUDES....

Materials:

- *Reflection Rubric*

3. Use the rubric to rate your reflection assignment before you submit your work.

Facilitation Steps:

1. Meaningful reflection can help participants gather and express their thoughts about the challenges of aging as well as the challenges of responsible and empathetic caregiving for geriatric patients in healthcare occupations. Responses will provide feedback on what you learned about the realities of aging and your changes in empathy and understanding for older adults.
2. Choose one of the following statements about being an empathetic caregiver for geriatric patients and create an essay, poster, poem, or written project to express what you have learned:
 - I learned that sensitive and empathetic caregivers need to have KNOWLEDGE ABOUT...
 - I learned that sensitive and empathetic caregivers need to have these SKILLS....
 - I learned that these PERSONAL LIFE SITUATIONS AND CIRCUMSTANCES can help a caregiver to be sensitive and empathetic.....



The Geriatric Experience Reflection Rubric

	4 points	3 points	2 points	1 point
Content The extent that the project shows understanding of what it is like to be an aging adult and the challenges of caring for a geriatric patient	Shows insightful comprehension for the scope of skills, attitudes, or situational factors that influence the ability to be a geriatric caregiver (12 points)	Shows basic comprehension for the scope of skills, attitudes or situational factors that influence the ability to be a geriatric caregiver (9 points)	Shows gaps in comprehension for the scope of skills, attitudes, or situational factors that influence the ability to be a geriatric caregiver (6 points)	Shows no relationship to the questions (3 points)
Personal reflection The extent that the project shows sincere understanding and empathy for care giving is personalized	Makes insightful connections to own personal life (8 points)	Shows literal personalization (6 points)	Shows a developing ability to personalize (4 points)	Makes few, if any, connections to own personal life (2 points)
Organization of ideas and design	Logical, coherent progression of ideas (4 points)	Generally focused, with clear attempt at organization (3 points)	Some organization, but disjointed ideas (2 points)	Little or no organization (1 point)
Use of language	Use of language enhances reader's ability to understand through sophistication and elaboration (4 points)	Use of language facilitates (allows) reader's understanding (3 points)	Use of language is distracting but does not interfere with understanding (2 points)	Use of language interferes with understanding (1 point)
Total Points				

Total Points _____ /28 = _____ %



Lesson 8 – Amazing Aging



Lesson Overview

People in developed nations are living in good health as much as a decade longer than their parents did, not because aging has been slowed or reversed, but because they are staying healthy to a more advanced age. This lesson will highlight amazing achievements of older adults.

Lesson Objectives

After completing this lesson, participants will be able to:

- Understand that not everyone ages the same way
- Understand that aging adults can do amazing things later in life
- Learn about the achievements of some amazing older adults
- Identify tips for leading a longer, healthier life

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• PowerPoint Presentations Slide 25	1. Prepare to show Presentation Slide	5 minutes
LEARN	• <i>Research Graphic Organizer</i> • Internet access	1. Print/photocopy the <i>Research Graphic Organizer</i> (one per participant) 2. Ensure Internet access for participants	30 – 90 minutes
REVIEW	• PowerPoint Presentation Slide 26	1. Prepare to show Presentation Slide	5 minutes

Lesson 8 – Amazing Aging

FOCUS: Living Longer and Healthier Lives

5 minutes

Purpose:

People in developed nations are living in good health as much as a decade longer than their parents did, not because aging has been slowed or reversed, but because they are staying healthy to a more advanced age. This activity will share recent statistics on aging and lifespan.

Materials:

- PowerPoint Presentation Slide 25

Facilitation Steps:

1. Show Presentation Slide 25. Share the following statistic with participants:

The global life expectancy increased from around 64 years in 1990 to about 70 in 2011.¹⁸

2. Ask participants why they believe life expectancy has increased in recent years. Explain that better health in older age stems from public health efforts to improve living conditions and prevent disease, and from improved medical interventions and discoveries.

Lesson 8 – Amazing Aging

LEARN: Research Project

30-90 minutes

Purpose:

The purpose of this activity is to have participants choose and research one amazing older adult who has accomplished something unique or significant later on in life.

Materials:

- *Research Graphic Organizer*
- Internet access

Facilitation Steps:

1. Explain to participants that they are going to choose and research one older adult who has accomplished something unique or significant later on life. Not everyone is sitting around in rocking chairs and living in nursing homes. There are many vibrant, healthy active seniors still doing amazing things. For example, Diana Nyad at age 64, became the first person confirmed to swim from Cuba to Florida without the aid of a shark cage, swimming from Havana to Key West (110 mi or 180 km).¹⁹
2. Information that they should be looking for during their research is:
 - Name
 - Age of accomplishment
 - Early life
 - Photo
 - Major accomplishment or achievement as an older adult
 - Interesting facts
3. Give each participant the *Research Graphic Organizer*. Give participants one class period to complete their research. You can also assign this as homework. Participants should prepare a short 5-minute presentation about this person, including the information on the graphic organizer.

4. Have each participant present their amazing older adult to the group.
5. Here is a suggested grading rubric for the class presentation:

50 points – Completed all information on the *Research Graphic Organizer* handout

10 points – Prepared for the presentation

10 points – The presentation content was clear, concise, and gave a good understanding why this person's accomplishment was significant

20 points – Demonstrated the ability to think critically, taking information from other sources to create something new

10 points – Demonstrated time management skills by delivering a well-planned 5-minute presentation



Research Graphic Organizer

Search for and choose a person that has done something significant later on in life. Record your findings in the organizer and use this information to create your short presentation.

Information	Findings
Name	
Major accomplishment, achievement or feat as an older adult	
Age of accomplishment	
Early life	
Photo available and where found	
Interesting facts	

Lesson 8 – Amazing Aging

REVIEW: How to Live a Longer, Healthier Life

5 minutes

Purpose:

Participants will learn what they can do to help live a longer, healthier life

Materials:

- Presentation Slide 26

Facilitation Steps:

1. Show Presentation Slide 26 and share the following statistic with participants:

“Each year, more Americans are living to be 100 with nearly 1 million people expected to reach their 100th birthday by 2050, according to the U.S. Census Bureau.”

2. There are things you can do to help live a longer, healthier life. If you look on the Internet, there are hundreds of sites dedicated to research and tips for living a longer and healthier life. Here are a few suggestions:^{20, 21}

- Keep moving - any exercise is beneficial
- Eat clean – eat fruits and vegetables, and stay away from saturated fats
- Have a positive attitude – be happy
- Be social – hang out with friends and family
- Get enough sleep
- Get a pet
- Do volunteer work
- Buckle up
- Have regular checkups, health screenings, and vaccinations



Lesson 9 – Post-Summative Assessment



Lesson Overview

Participants will complete the Post-Summative Assessment to see what they have learned about the geriatric experience.

Lesson Objectives

After completing this lesson, participants will be able to:

- Assess their understanding of information presented throughout the course.

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS	• None	1. None	5 minutes
LEARN	• <i>Post-Summative Assessment</i>	1. Print/photocopy the <i>Post-Summative Assessment</i> (one per participant)	15 minutes
REVIEW	• Post-Summative Assessment Answer Key	1. None	10 minutes

Lesson 9 – Post-Summative Assessment

FOCUS: Geriatric Experience Debrief

5 minutes

Purpose:

Learn how the geriatric sensitivity simulation experience impacted participants.

Materials:

- None

Facilitation Steps:

1. Ask participants to share their answers to the following discussion questions:
 - How did the geriatric experience change the way you see older adults?
 - How will this experience impact the way you interact with older adults?
 - How would this experience help you as a healthcare worker?

Lesson 9 – Post-Summative Assessment

LEARN: Post Summative Assessment

15 minutes

Purpose:

This activity assesses student knowledge about the facts presented throughout the entire course of study.

Materials:

- *Post-Summative Assessment*

Facilitation Steps:

1. Distribute the Post-Summative Assessment to each student, allowing 15 minutes to complete.



Post-Summative Assessment

Directions: The following questions will ask you about your knowledge of aging and the issues or challenges that brings. Please answer the questions by circling the best answer or writing your response in the space provided.

1. Geriatrics is

Description

- ☐ A progressive degeneration of the retina
- ☐ Diseases that damage the optic nerve
- ☐ The most common diabetes-related eye condition
- ☐ When all or part of the retina comes off
- ☐ A painless cloudy area in the lens of the eye blocking light to the retina
- ☐ When the small central portion of the retina deteriorates

2. Indicate whether each of the following is a part of gerontology. (Circle yes or no)

Scientific study of old age	Yes	No
Nursing home care	Yes	No
The process of aging	Yes	No
Social aspects of aging	Yes	No
Cognitive aspects of aging	Yes	No

5. A key issue in maintaining independence as one ages is _____

3. Over what age do some sources define as 'geriatric?'

- a. 70
- b. 65
- c. 80
- d. 100

4. Match the visual impairment with the descriptions in the next column.

- a. Glaucoma
- b. Macular Degeneration
- c. Cataracts
- d. Diabetic Retinopathy
- e. Retinal Detachment
- f. Retinitis Pigmentosa

(continued on next page)



6. Match the following body parts to the corresponding impact that aging has on it.

- a. Skin
- b. Hair
- c. Height
- d. Hearing
- e. Vision
- f. Bones
- g. Body
- h. Brain
- i. Heart
- j. Lungs

Description

- _____ It must work harder during activity
- _____ Metabolism slows down
- _____ Lenses become less flexible
- _____ You lose several inches due to changes in posture
- _____ Is less elastic and more wrinkled
- _____ Cells are reduced in number
- _____ Less oxygen is brought to the body
- _____ Changes make high frequencies difficult to recognize
- _____ Length of nerves and blood flow decreases
- _____ Become less dense and less strong

7. Name two devices that assist mobility:

8. True or False: Decreased range of motion is caused by loss of fluid between the joints.

- a. True
- b. False

9. True or False: Exercise cannot increase a person's range of motion and flexibility.

- a. True
- b. False

10. Osteoarthritis is _____.

- a. When bones grow in size
- b. Fluid on the brain
- c. When the protective cartilage on the ends of bones wears down over time
- d. When you lose inches and appear slumped over

11. Identify whether following are potential causes of hearing loss due to aging.

Yes	No	Diabetes
Yes	No	High blood pressure
Yes	No	Colon cancer
Yes	No	Exposure to loud sounds
Yes	No	Eating saturated fats
Yes	No	Certain toxic medications
Yes	No	Changes to inner ear
Yes	No	Changes to the brain
Yes	No	Change in nerve pathway from ear to brain
Yes	No	Alcoholism

12. Identify whether following may be signs of age-related hearing loss.

Yes	No	Asking people to repeat themselves
Yes	No	Being a speed reader
Yes	No	Crying excessively
Yes	No	Misunderstanding what others are saying
Yes	No	Straining to understand a conversation
Yes	No	Humming loudly
Yes	No	Difficulty hearing around background noise
Yes	No	Difficulty following a conversation when two or more people are speaking
Yes	No	Turning TV volume down

13. Name two devices that assist hearing.



14. True or False: Aging inevitably results in the loss of all cognitive abilities. There is nothing you can do to slow down or stop the decline.

- a. True b. False

15. True or False: Someone has dementia if the symptoms interfere with daily activity and impact more than one area of brain function.

- a. True b. False

16. Circle the recommendations which may help to slow down age-related cognitive changes.

- a. Increase stress
- b. Engage your mind
- c. Eat fruits and vegetables containing antioxidants
- d. Eat peanut oil
- e. Use organizational tools like a calendar
- f. Stop visiting your doctor on a regular basis

17. Remember the saying, "Use it or _____ it!"

18. Empathy is.....

19. True or False: The global life expectancy increased from 64 to 85 in 2011.

- a. True b. False

20. Why has life expectancy increased in recent years?

- a. New medical discoveries
- b. A cure for Alzheimer's was found
- c. Increased public health efforts to improve living conditions
- d. People are eating their Wheaties



Lesson 9 – Post-Summative Assessment

REVIEW: Peer Checking

10 minutes

Purpose:

Participants will exchange tests with another peer in the group to check results on the Post-Summative Assessment.

Materials:

- *Post-Summative Assessment Answer Key*

Facilitation Steps:

1. Have participants exchange their Post-Summative Assessments with another peer.
2. Review each answer found in the Answer Key.
3. Have participants return original assessments and record the results.

Post-Summative Assessment Answer Key

Directions: The following questions will ask you about your knowledge of aging and the issues or challenges that brings. Please answer the questions by circling the best answer or writing your response in the space provided.

1. Geriatrics is **the branch of healthcare dealing with the problems of aging and diseases of the aged.**

2. Indicate whether each of the following is a part of gerontology. (Circle yes or no)

Scientific study of old age **Yes** No

Nursing home care Yes No

The process of aging **Yes** No

Social aspects of aging **Yes** No

Cognitive aspects of aging **Yes** No

3. Over what age do some sources define as 'geriatric?'

- a. 70
- b. 65**
- c. 80
- d. 100

4. Match the visual impairment with the descriptions in next column.

- a. Glaucoma
- b. Macular Degeneration
- c. Cataracts
- d. Diabetic Retinopathy
- e. Retinal Detachment
- f. Retinitis Pigmentosa

Description

f A progressive degeneration of the retina.

a Diseases that damage the optic nerve.

d The most common diabetes-related eye condition

e When all or part of the retina comes off.

c A painless cloudy area in the lens of the eye blocking light to the retina.

b When the small central portion of the retina deteriorates

5. A key issue in maintaining independence as one ages is **mobility**.

(continued on next page)



6. Match the following body parts to the corresponding impact that aging has on it.

- a. Skin
- b. Hair
- c. Height
- d. Hearing
- e. Vision
- f. Bones
- g. Body
- h. Brain
- i. Heart
- j. Lungs

Description

- i It must work harder during activity.
- g Metabolism slows down.
- e Lenses become less flexible.
- c You lose several inches due to changes in posture.
- a Is less elastic and more wrinkled.
- b Cells are reduced in number.
- j Less oxygen is brought to the body.
- d Changes make high frequencies difficult to recognize.
- h Length of nerves and blood flow decreases.
- f Become less dense and less strong.

7. Name two devices that assist mobility.

wheelchair, scooter, walker or cane
prosthetics, crutches

8. True or False: Decreased range of motion is caused by loss of fluid between the joints.

- a. True
- b. False

9. True or False: Exercise cannot increase a person's range of motion and flexibility.

- a. True
- b. False

10. Osteoarthritis is _____.

- a. When bones grow in size
- b. Fluid on the brain
- c. When the protective cartilage on the ends of bones wears down over time
- d. When you lose inches and appear slumped over

11. Identify whether following are potential causes of hearing loss due to aging.

<u>Yes</u>	No	Diabetes
<u>Yes</u>	No	High blood pressure
Yes	<u>No</u>	Colon cancer
<u>Yes</u>	No	Exposure to loud sounds
Yes	<u>No</u>	Eating saturated fats
<u>Yes</u>	No	Certain toxic medications
<u>Yes</u>	No	Changes to inner ear
Yes	<u>No</u>	Changes to the brain
<u>Yes</u>	No	Change in nerve pathway from ear to brain
Yes	<u>No</u>	Alcoholism

12. Identify whether following may be signs of age-related hearing loss.

<u>Yes</u>	No	Asking people to repeat themselves
Yes	<u>No</u>	Being a speed reader
Yes	<u>No</u>	Crying excessively
<u>Yes</u>	No	Misunderstanding what others are saying
<u>Yes</u>	No	Straining to understand a conversation
Yes	<u>No</u>	Humming loudly
<u>Yes</u>	No	Difficulty hearing around background noise
<u>Yes</u>	No	Difficulty following a conversation when two or more people are speaking
Yes	<u>No</u>	Turning TV volume down

13. Name two devices that assist hearing.

Hearing aids, cochlear implants, bone anchored hearing systems, assistive listening devices



14. True or False: Aging inevitably results in the loss of all cognitive abilities. There is nothing you can do to slow down or stop the decline.

- a. True **b. False**

15. True or false: Someone has dementia if the symptoms interfere with daily activity and impact more than one area of brain function.

- a. **True** b. False

16. Circle the recommendations which may help to slow down age-related cognitive changes.

- a. Increase stress
- b. Engage your mind**
- c. Eat fruits and vegetables containing antioxidants**
- d. Eat peanut oil
- e. Use organizational tools like a calendar**
- f. Stop visiting your doctor on a regular basis

17. Remember the saying, "Use it or **lose** it!"

18. Empathy is.....

The ability to understand and share feelings of another.

19. True or False: The global life expectancy increased from 64 to 85 in 2011.

- a. True **b. False**

20. Why has life expectancy increased in recent years?

- a. New medical discoveries**
- b. A cure for Alzheimer's was found
- c. Increased public health efforts to improve living conditions**
- d. People are eating their Wheaties

Resources and References

1. "Medical Dictionary." *TheFreeDictionary.com*. N.p., n.d. Web. 9 Sept. 2015. Retrieved from <http://medical-dictionary.thefreedictionary.com>
2. World Health Organization, Fact Sheet N. 282. (2014 Updated August)
3. "Cost of Vision Problems." — *Economic Burden by Age*. N.p., n.d. Web. 09 Sept. 2015. Retrieved from <http://costofvision.preventblindness.org/costs/economic-burden-by-age>
4. "Visual Impairment." *WebMD*. WebMD, n.d. Web. 09 Sept. 2015. Retrieved from <http://www.webmd.com/>
5. Loh, K.Y. (2004, October) Age Related Visual Impairment in the Elderly. *Medical Journal of Malaysia*, Vol. 59, No. 4
6. "Healthy Aging." *WebMD*. WebMD, n.d. Web. 10 Sept. 2015. Retrieved from <http://www.webmd.com/>
7. Vanderbilt Center for Quality Aging. Mobility Decline Training Module. <http://www.mc.vanderbilt.edu/documents/cqa/fileCs/Mobility%20Decline%20Prev/Module%20mobility%20decline%20prevention.pdf> (accessed September 11, 2015)
8. Rantakokko, Merija, Minna Manty, and Taina Rantanen. "Mobility Decline in Old Age." *Exercise and Sports Sciences Review*. 2013;41(1):19-25.
9. Better Health Channel, n.d.; http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Ageing_muscles_bones_and_joints (accessed September 14, 2015)
10. MedicineNet.com, n.d.; http://www.medicinenet.com/senior_exercise/page4.htm (accessed September 14, 2015)
11. Osteoarthritis." - *Mayo Clinic*. N.p., n.d. Web. 14 Sept. 2015 Retrieved from <http://www.mayoclinic.org/diseases-conditions/osteoarthritis/basics/definition/CON-20014749>
12. "Aging Changes in the Senses." *University of Maryland Medical Center*. N.p., n.d. Web. 15 Sept. 2015. Retrieved from <http://umm.edu/health/medical/ency/articles/aging-changes-in-the-senses#ixzz3linIYDtY>
13. "Aging Feet." *OurHealthNetwork*. N.p., n.d. Web. 15 Sept. 2015. Retrieved from <http://ourhealthnetwork.com/conditions/aging-feet/>
14. "Age-Related Hearing Loss." *National Center for Biotechnology Information*. U.S. National Library of Medicine, n.d. Web. 14 Sept. 2015. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMHT0024983/>



15. "Age-Related Hearing Loss." 15. National Institute on Deafness and Other Communication Disorders, n.d. Web. 21 Oct. 2015. Retrieved from <http://www.nidcd.nih.gov/health/hearing/Pages/Age-Related-Hearing-Loss.aspx#3>
16. "Disease Progression: The 5 Stages of Dementia." *Healthline*. N.p., n.d. Web. 14 Sept. 2015. Retrieved from <http://www.healthline.com/health/dementia/stages>
17. "Emory University Alzheimer's Disease Research Center." *Cognitive Skills & Normal Aging*. N.p., n.d. Web. 14 Sept. 2015. Retrieved from http://alzheimers.emory.edu/healthy_aging/cognitive-skills-normal-aging.html
18. Reuters. "Global Life Expectancy: Life Spans Continue To Lengthen Around The World, WHO Says." *The Huffington Post*. TheHuffingtonPost.com, n.d. Web. 16 Sept. 2015. Retrieved from http://www.huffingtonpost.com/2013/05/15/global-life-expectancy-span-world_n_3281211.html
19. "Diana Nyad." *Wikipedia*. Wikimedia Foundation, n.d. Web. 16 Sept. 2015. Retrieved from https://en.wikipedia.org/wiki/Diana_Nyad (a
20. Cavalieri, Thomas A., DO, Director of New Jersey Institute for Successful Aging "Aging Successfully and Living to be 100", (2014)
21. "10 Healthy Habits For A Longer Life | SymptomFind.com." *Symptomfind.com*. N.p., 13 Mar. 2013. Web. 16 Sept. 2015. Retrieved from <http://www.symptomfind.com/healthy-living/healthy-habits-for-a-longer-life/>

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