



HEALTHCARE SCIENCE

COURSE: 25.561 Nursing Essentials

UNIT: 16.1 Respiratory System Disorders and Nursing Care



INTRODUCTION

Annotation:

In this unit students will learn and practice techniques for monitoring and providing care for residents/patient/clients with common respiratory system disorders. This will include safety and caring for residents using oxygen therapy.

Grade(s):

<input type="checkbox"/>	9 th
<input type="checkbox"/>	10 th
<input checked="" type="checkbox"/>	11 th
<input checked="" type="checkbox"/>	12 th

Time:

Two 50 minute periods

Author:

Phyllis Dumas

Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards:

HS-NE-12:

The student will perform basic nursing skills within the scope of practice for a nursing assistant while maintaining resident rights. Beginning and ending procedures will be performed with all resident care.

- d.** Demonstrate understanding of body systems while recognizing abnormal changes in body function and reporting changes to supervisor

GPS Academic Standards:

SAP1: Students will analyze anatomical structures in relationship to their physiological functions.

SAP2: Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

SAP3: Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

SAP4: Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

National / Local Standards / Industry / ISTE:



UNDERSTANDINGS & GOALS

Enduring Understandings:

- Students will understand the basic anatomy and physiology of the respiratory system.
- Students will describe the nursing assistant's role in providing care for residents with some common respiratory system disorders or diseases.
- Student will understand how to provide care for a resident who is receiving oxygen therapy

Essential Questions:

- What are the functions of the structures that make up the respiratory system?
- What is the nursing assistant's role in caring for residents with common disorders of the respiratory system?
- How does a nursing assistant provide care for a resident receiving oxygen therapy?

Knowledge from this Unit:

- The components of the respiratory system
- At least three common disorders of the respiratory system
- How to provide care as a nursing assistant for residents with some common respiratory system disorders/diseases

Skills from this Unit:

- Students will be able to
- Use senses to observe and report changes in residents with common respiratory system disorders
- Assist the nurse in monitoring residents receiving oxygen therapy.



ASSESSMENT(S)

Assessment Method Type:

- ☐ Pre-test
- ☐ Objective assessment - multiple-choice, true- false, etc.
 - ☐ Quizzes/Tests
 - ☐ Unit test
- ☐ Group project
- ☐ Individual project
- ☒ Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - ☐ Self-check rubrics
 - ☐ Self-check during writing/planning process
 - ☐ Journal reflections on concepts, personal experiences and impact on one's life
 - ☐ Reflect on evaluations of work from teachers, business partners, and competition judges
 - ☐ Academic prompts
 - ☐ Practice quizzes/tests
- ☐ Subjective assessment/Informal observations
 - ☐ Essay tests
 - ☐ Observe students working with partners
 - ☐ Observe students role playing
- ☐ Peer-assessment
 - ☐ Peer editing & commentary of products/projects/presentations using rubrics
 - ☐ Peer editing and/or critiquing
- ☐ Dialogue and Discussion
 - ☐ Student/teacher conferences
 - ☐ Partner and small group discussions
 - ☐ Whole group discussions
 - ☐ Interaction with/feedback from community members/speakers and business partners
- ☐ Constructed Responses
 - ☐ Chart good reading/writing/listening/speaking habits
 - ☐ Application of skills to real-life situations/scenarios
- ☐ Post-test

Assessment(s) Title:

Respiratory System Disorder Quiz

Assessment(s) Description/Directions:

Administer this written assessment at the end of the unit.

Attachments for Assessment(s):



LEARNING EXPERIENCES

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

HS-NE-12: The student will perform basic nursing skills within the scope of practice for a nursing assistant while maintaining resident rights. Beginning and ending procedures will be performed with all resident care.

SAP1: Students will analyze anatomical structures in relationship to their physiological functions.

SAP2: Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.

SAP3: Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

SAP4: Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

2. Review Essential Questions.

- What are the functions of the structures that make up the respiratory system?
- What is the nursing assistant's role in caring for residents with common disorders of the respiratory system?
- How does a nursing assistant provide care for a resident receiving oxygen therapy?

3. Identify and review the unit vocabulary.

Disorders Common Disorders **

[Acute bronchitis](#) **

[Asthma](#) **

[Avian flu](#)

[Chronic obstructive pulmonary disease \(COPD\)](#)*

[Common cold](#) **

[Flu \(influenza\)](#) **

[Hantavirus](#)

[Lung cancer](#)

[Pneumonia **](#)

[Pulmonary embolus **](#)

[Respiratory distress syndrome](#)

[Respiratory syncytial virus \(RSV\) **](#)

[Severe acute respiratory syndrome \(SARS\)](#)

[Sleep apnea](#)

[Tuberculosis**](#)

4. Assessment Activity.

- Review anatomy of Respiratory system
- Make an audio tape of abnormal breath sounds, or if you have a tape of breath sounds, play some abnormal sounds and ask students if they can figure out what is going on. Sounds can be made by using a straw to blow into a glass of water for gurgling, or imitate Cheyne-Stokes respirations or other sounds. Ask students to describe the sounds in writing.
- Discuss the importance of observing skin color and breathing in residents with respiratory system disorders.
- Have students review the vocabulary associated with this unit.
- Using the multimedia presentation, discuss common disorders of the respiratory system.
- The American lung association is a good site to use for disorders
<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22576> American Lung. A variation is that students are assigned to research nursing care for specific disorders, such as the list below.
- At end of lesson give the students the review quiz.

Attachments for Learning Experiences:

Notes & Reflections:

This Unit may be taught in conjunction with the caring for a resident receiving oxygen therapy.



UNIT RESOURCES

Web Resources:

- <http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22576> American Lung Association
- <http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=40743> interactive how breathing works
- <http://www.cdli.ca/~dpower/resp/exchange.htm#Breathing> great explanation of gas exchange
- <http://www.cdli.ca/~dpower/resp/control.htm> respiratory center in brain
- <http://www.cdli.ca/~dpower/resp/struct~1.htm> respiratory structures
- <http://www.le.ac.uk/pathology/teach/va/anatomy/case2/frmst2.html> anatomy and physiology of respiration
- <http://www.le.ac.uk/pathology/teach/va/titlpag1.html> virtual autopsy; This interactive website would be great to use at the end of the unit for the whole class if you have access to a projector, Case 3 would be a great reinforcement for students to understand forensics medicine and what appears to be a case involving the respiratory system.

Attachment(s):

Materials & Equipment:

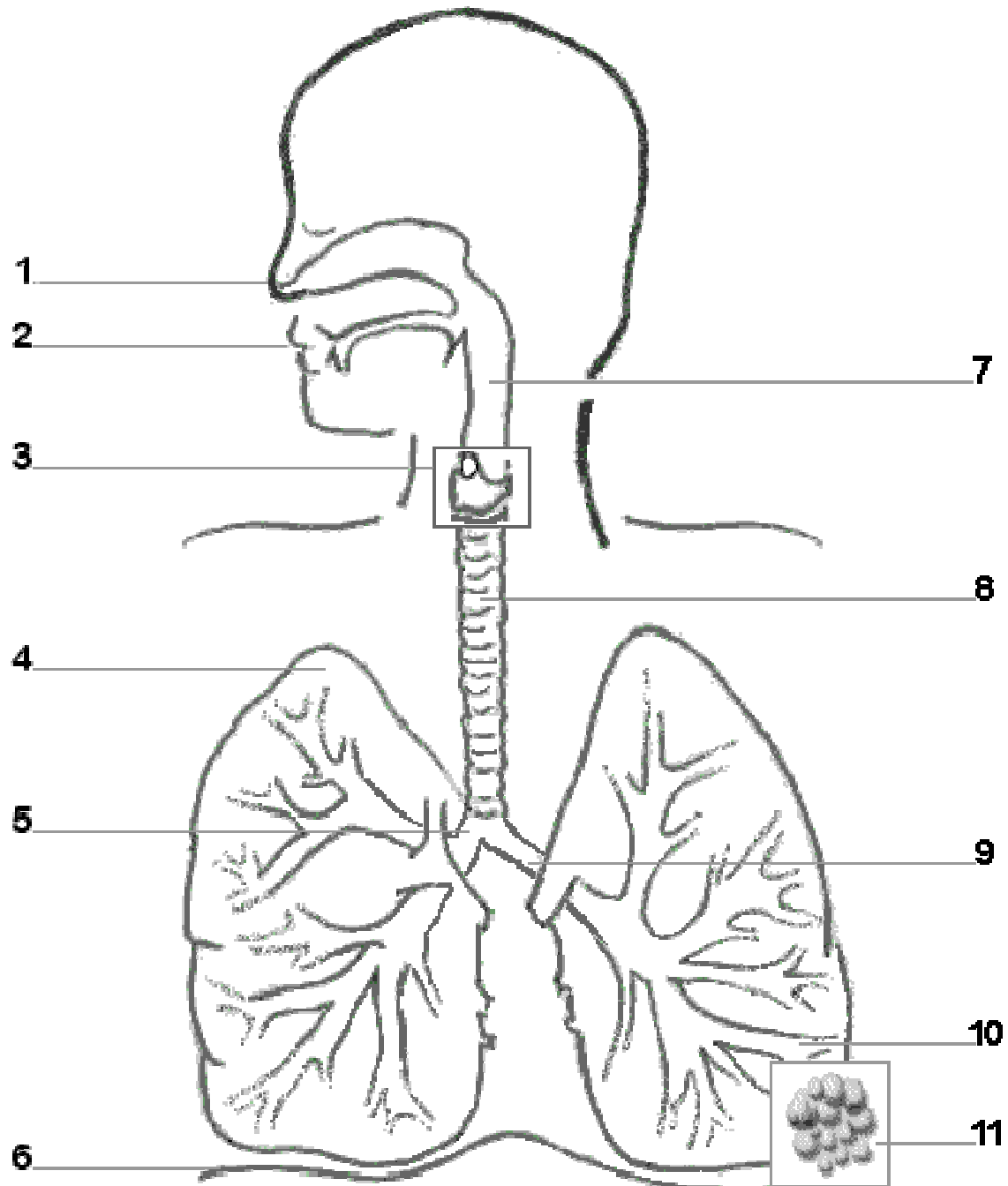
- Diagram of Respiratory system
- Vocabulary List
- Unit Outline for respiratory system
- Multimedia presentation on Respiratory system disorders
- Textbook
- Internet
- Computer
- Projector or Interactive board
- Anatomy Mannequin with lungs

What 21st Century Technology was used in this unit:

<input type="checkbox"/>	Slide Show Software	<input type="checkbox"/>	Graphing Software	<input type="checkbox"/>	Audio File(s)
<input type="checkbox"/>	Interactive Whiteboard	<input type="checkbox"/>	Calculator	<input type="checkbox"/>	Graphic Organizer
<input type="checkbox"/>	Student Response System	<input type="checkbox"/>	Desktop Publishing	<input type="checkbox"/>	Image File(s)
<input type="checkbox"/>	Web Design Software	<input type="checkbox"/>	Blog	<input type="checkbox"/>	Video
<input type="checkbox"/>	Animation Software	<input type="checkbox"/>	Wiki	<input type="checkbox"/>	Electronic Game or Puzzle Maker
<input type="checkbox"/>	Email	<input checked="" type="checkbox"/>	Website		

DIAGRAM RETRIEVED FROM

[HTTP://WWW.SWSD.K12.PA.US/~REBEKAH_MILLER/DIAGRAM.HTM](http://www.swsd.k12.pa.us/~REBEKAH_MILLER/DIAGRAM.HTM)



RESPIRATORY SYSTEM

STUDENT INSTRUCTIONS FOR PERFORMANCE TASK-

<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22576> American Lung Association
<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=40743> interactive how breathing works

<http://www.cdli.ca/~dpower/resp/exchange.htm#Breathing> great explanation of gas exchange

<http://www.cdli.ca/~dpower/resp/control.htm> respiratory center in brain

<http://www.cdli.ca/~dpower/resp/struct~1.htm> respiratory structures

<http://www.le.ac.uk/pathology/teach/va/anatomy/case2/frmst2.html> anatomy and physiology



Caring for Residents with Respiratory System Disorders Test

Name _____ Date _____

Answer the following questions.

1. Identify 3 observations you should make about the respirations when checking vital signs.
 - a.
 - b.
 - c.
2. What should the nursing assistant observe and report about respiratory system secretions?
 - a.
 - b.
3. Identify 4 Signs and symptoms of COPD.
 - a.
 - b.
 - c.
 - d.
4. What observation about residents receiving oxygen needs to be reported promptly?
 - a.
 - b.
5. What special precautions need to be taken when caring for a resident with TB?
6. Identify 2 things a nursing assistant should not do when caring for a resident with a tracheostomy.
 - a.
 - b.
7. What position could a COPD patient be in to help breathing?
 - a.
8. Identify one important factor to remember about oxygen for a resident with COPD.
 - a.

9. Identify 3 disorders of the respiratory system other than COPD and state the role of the nursing assistant in caring for residents/patients/clients with these disorders?

- a.
- b.
- c.