

# Unit 11: Anatomy and Physiology Respiratory

Content Area: **Science**  
Course(s): **Generic Course**  
Time Period: **Marking Period 4**  
Length: **2 weeks**  
Status: **Published**

## Standards

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[LS1.A: Structure and Function](#) (pp. 143-145, NRC, 2012)

- [Systems of specialized cells within organisms help them perform the essential functions of life. \(HS-LS1-1\)](#)
- [Multicellular organisms have a hierarchical structural organization, in which any one system is made up of numerous parts and is itself a component of the next level. \(HS-LS1-2\)](#)
- [Feedback mechanisms maintain a living system's internal conditions within certain limits and mediate behaviors, allowing it to remain alive and functional even as external conditions change within some range. Feedback mechanisms can encourage \(through positive feedback\) or discourage \(negative feedback\) what is going on inside the living system. \(HS-LS1-3\)](#)

SCI.9-12.HS-LS1-1	Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells.
SCI.9-12.HS-LS1-3	Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
SCI.9-12.HS-LS1-2	Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.

## Essential Questions

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Why do we breathe?

How can the lungs keep the body supplied with a continuous supply of oxygen?

## Content / Skills

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- Compare and contrast internal and external respiration
- Describe how oxygen and carbon dioxide are transported in the blood and factors that affect the transport of respiratory gases
- Explain the mechanics of breathing
- Explain the role of the diaphragm in human respiration
- List the general functions of the respiratory system
- Connect respiration and nervous system
- Name and locate organs and their functions of the respiratory system

