GEORGIA | PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

HEALTHCARE SCIENCE

COURSE: 25.521 Introduction to Healthcare Science

UNIT: 9.1 Life Stages

INTRODUCTION

Annotation:

In this unit students will be introduced to the anatomy and physiology of the body as a whole. Additionally, various aspects of growth and development from conception and throughout the lifespan will be examined including conditions that can change normal body function. Students will use the Internet to discover information about body systems. Students will divide into groups and develop a report on which body system is the most important. Each group will present and defend their system to the class. At the conclusion of the presentation, student may vote on which system was the most important.

Grade(s):

X	9th
X	10th
X	11th
X	12th

Time:

Ten 50 minute periods

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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-IHA-7:

The student will compare and contrast the life changes from conception throughout the lifespan as it relates to all growth and developmental needs.

a. Investigate the interdependence of the various body systems to each other and to the body as a whole.

b. Explain the role of homeostasis and its mechanisms as these relate to the body as a whole and predict the consequences of the failure to maintain homeostasis.

c. Describe how structure and function are related in terms of cell and tissues types.

d. Describe the stages of growth and development from conception throughout the lifespan including correlations to Maslow's Hierarchy of Needs.

e. Examine various conditions that change normal body functions – i.e. tissue rejection, allergies, injury, diseases and disorders - and how the body responds.

f. Describe effects of aging on all body systems.

GPS Academic Standards:

SAP5e – Describe effects of aging on all body systems.

SAP4e - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

SAP5d – Describe the stages of development from birth to adulthood –i.e. neonatal period, infancy, childhood, adolescence and puberty, and maturity.

National / Local Standards / Industry / ISTE:

UNDERSTANDINGS & GOALS

Enduring Understandings:

- The interdependence of the body systems on each other and to the body as a whole
- The role of homeostasis as it relates to the body
- How life begins and the changes that occur throughout the lifespan

Essential Questions:

- How is the body organized and how does it function?
- What is the function of cells and tissues?
- How does the human organism, grow, develop and change throughout the lifespan?

Knowledge from this Unit:

- How body functions are interdependent on each body system and the body as a whole
- The role of homeostasis in the body
- Structure and function of cells and body tissues
- Stages of growth and development
- How aging affects all body systems

Skills from this Unit:

- Verbalize the interdependence of body functions.
- Explain the role of homeostasis.
- Describe structure and functions of cells and body tissues.
- Identify the various stages of growth & development from various theorists.
- Identify how aging affects all body systems.
- Identify conditions that affect normal body functions.

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
_X_ Constructed Responses
__ Chart good reading/writing/listening/speaking habits
__ Application of skills to real-life situations/scenarios
_____ Post-test

Assessment(s) Title:

1. Intro to the Body – Fill in the missing information
2. Matching Terms
3. Life Stages
4. Human Needs

Assessment(s) Description/Directions:

- Body Organization Test is a test that is a graphic organizer with limited information. Given the information that is presented the student should fill in the missing information to complete the chart.
- This is a matching and multiple choice test related to the basic information about body organization.
- This is a test that relates information learned about life stages and events that take place during life stages HUMAN GROWTH & DEVELOPMENT.
- This is a test that the student fills in the missing information about human needs.

Attachments for Assessment(s):

LEARNING EXPERIENCES

Sequence of Instruction

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

HS-HIS-7: The student will compare and contrast the life changes from conception throughout the lifespan as it relates to all growth and developmental needs.

SAP5e – Describe effects of aging on all body systems.

SAP4e - Examine various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

SAP5d – Describe the stages of development from birth to adulthood –i.e. neonatal period, infancy, childhood, adolescence and puberty, and maturity.

2. Review Essential Questions.

- How is the body organized and how does it function?
- What is the function of cells and tissues?
- How does the human organism, grow, develop and change throughout the lifespan?

3. Identify and review the unit vocabulary.

4. Assessment Activity.

Learning Activities:

- Discuss homeostasis and its role in the human body
- Complete worksheet for text on body system
- Fill in the missing information (Body System Chart) – about organs & functions for each system. Two different graphic organizers may be used. One has a "clue column so that the student may select which system to put first if they should recognize a way to remember each system. The other has each system listed
- Complete Body Organization Test
- Review minutes for the City Board Meeting presentation
- Complete Cell Term Worksheet and Answer Sheet
- Define key terms – Life Stages
- Review Outline have student groups discuss assigned stages
- Take Human Growth and Development Test

- Humans needs – lecture, assignment sheet and crossword

Need to make rubric for presentation and human needs test.

The following are pages of information and or handouts to be used in class as the teacher needs. You may copy and paste what is needed.

Worksheet for group project: Divide students into 6 groups. Students are to explore and defend their body system and present to the class WHY their system is the most important to the body. The following can be use for students to take notes during the mock city debate. Relate how the body is set up something like a city. In the city called the body, there are cut backs that need to be made and one member of the city system must go. Each group should defend their city system, to avoid getting laid off.

Minutes from The Human System Board Meeting
With recession on the rise, cut backs are being made across the board, even in the systems of the human body. There are so many systems that make up the human body that the Board of Human Systems has decided to eliminate one of the major systems to cut back on production costs. Yet, which system could they eliminate without damaging the human body? Which system is the most important to the body?

The following should be a part of the minutes that you take during the presentations

- List the main function of each system.
- Identify 3 important facts about each system.
- List 1 reason why this system should stay in the human system.
- Were there any resources listed that could be used for follow-up research? If so, list 1.
- Lastly identify your part of the defense of why your system needs to stay.
- Vote for the system you think should remain, and state the reason(s) why.

Cardiovascular

Function -

1.

2.

3.

Reason Why

Digestive

Function -

1.

2.

3.

Reason Why

http://homepage.mac.com/tbx_productions/WebQuest/SystemsWebquest.htm

Muscular

Function -

1.

2.

3.

Reason Why

Nervous

Function -

Granule Cell

1.

2.

3.

Reason Why

Respiratory

Function -

1.

2.

3.

Reason Why

Skeletal

Function -

1.

2.

3.

Reason Why

Identify your part of the research project

Which system should stay and ***WHY?***

Attachments for Learning Experiences:

Notes & Reflections:

- Each activity can be altered to fit the need of each class.

CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

City Systems Board Meeting oral presentation

The Minutes from the Board Meeting

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

This is a working worksheet. The information that the students should discover is about the body system that will be assigned to each group. Students will present information during a "mock" city meeting to make cuts to the budget. Each system should present evidence why their system should stay because of the importance it has to the "city" or body.

Attachments for Culminating Performance Task:

UNIT RESOURCES

Web Resources:

Attachment(s):

Materials & Equipment:

- Computer/internet access
- Multimedia presentation/laptop access
- Worksheets
- Textbook
- Oral Presentation Rubric

What 21st Century Technology was used in this unit:

☐	Slide Show Software	☐	Graphing Software	☐	Audio File(s)
☐	Interactive Whiteboard	☐	Calculator	☐	Graphic Organizer
☐	Student Response System	☐	Desktop Publishing	☐	Image File(s)
☐	Web Design Software	☐	Blog	☐	Video
☐	Animation Software	☐	Wiki	☐	Electronic Game or Puzzle Maker
☐	Email	☒	Website		