**Healthy Informatics- Adrienne Nelson**

How can Highland Park HS students change the way teenagers of east Topeka, Kansas access healthcare information?

Students will be working to find ways to increase health literacy and access to health information for themselves and their peers. Health literacy and access to health information was the #2 concern in the community health needs assessment for [Shawnee County in 2018](https://www.stormontvail.org/wp-content/uploads/2019/03/Community-Health-Needs-Assessment-2018.pdf) (CHNA). There is a huge need, specifically in east Topeka, Kansas, to provide culturally relevant and accurate healthcare information, as well as how to access this information for underserved communities. Students will be able to choose the topic they wish to improve literacy on, such as mental health, nutrition/access to food, Sex education/communicable diseases, poverty support, or others chosen by students.

The Main Objectives of this Unit are:

1. To develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
2. To plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
3. To apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.

**Unit Lesson Plan**

Unit Overview

* Project Design Overview
* Project Calendar
* Project Assessment MAP
* Presentation

**Lesson 1: Introduction to Health Literacy**

This lesson contains the entry event for the unit and the project. Students need to comprehend what health literacy is and why there is a deficit of health literacy within our community. This lesson will introduce the project and make students aware of the need for health literacy in teenagers.

**Key Information:**

1. Students will understand how a Community Health Needs Assessment (CHNA) is conducted, and how to interpret information presented in the CHNA
2. Students will be able to complete a survey and analyze class data based on health literacy questions

**Lesson 1 Resources**

* PearDeck presentation & survey questions
* Student Chromebooks

**Lesson 2: Body Systems Review**

Students will need basic understanding of all the body systems in order to inform others about the function (physiology) of human bodies. Health literacy is built upon a foundation of understanding the human body, and the relationship between the structure of body systems and their function.

**Key Information:**

1. Students will understand the basic structure and function of all eleven body systems
2. Students will be able to organize the nested levels of organs/body systems, and provide reasoning for how each body system helps maintain homeostatic conditions

**Lesson 2 Resources**

* [Human Body Systems Foldable](https://drive.google.com/file/d/17SA4tKIYmS5rQGy2FcSTXgIrl5VVYf6p/view?usp=sharing)
* Colored pencils/markers/crayons
* A&P Textbook, Chromebook

**Lesson 3: Deeper Look at Body Systems**

After having a brief introduction to the body systems, in this lesson students will then be assigned a body system to research further and create a life-sized poster. Students will again need to develop their researching skills as they find credible and authentic information from which to create their poster. This ties back into the project by letting students know how important it is to have accurate and credible information that others will need.

**Key Information**

1. Students will understand the structure and function of their body system relative to other body systems
2. Students will be able to find accurate and credible information related to their body system
3. Students will be able to create a poster resembling only their given body system that is anatomically correct

**Lesson 3 Resources**

* Butcher paper
* Colored pencils/markers/crayons
* A&P Textbook, Chromebooks

**Lesson 4: Creating a Valid, Reliable Survey**

Students will need to create a survey to use in data collection. Before students can have an actual, reliable survey they will need to create a rough draft of survey questions they want to ask regarding the topic for their project. Students have already been introduced to the project and brainstormed ideas they want to address with their project. This lesson is critical in getting students to create their own surveys for valuable data collection that will be used in their projects.

**Key Information:**

1. Students will understand the criteria for creating a survey and on how to conduct a survey
2. Students will be able to create first drafts of a survey using a checklist for what makes a good survey

**Lesson 4 Resources**

* Chromebooks
* Notebooks

**Lesson 5: Predictions and Data Collection**

Students will be creating their hypothesis for the project (what type of results do you expect to get? Is your topic something that is really on the minds of teenagers at HPHS?) and then using their final draft of their survey to begin collecting data. Data will be presented as part of the final product and used to drive student solutions and focus.

**Key Information:**

1. Students will understand how data influences community practices and interventions
2. Students will be able to collect data from peers for use in final product
3. Students will be able to create a hypothesis for their final product (If \_\_\_\_\_ then \_\_\_\_\_ because \_\_\_\_\_\_)

**Lesson 5 Resources**

* Chromebooks
* Paper, pencils, journals
* SurveyMonkey, Google Forms (exports data to Google Sheets)
* [Final Project Rubric](https://docs.google.com/document/d/1mnjYRypWSAsO9-hmQvwmfYTEL7w4yEOG69W8Iqg3Sgw/edit?usp=sharing)

**Lesson 6: Final Product Presentation**

Students will present their final products to their classmates before presenting them to the rest of the school during a blocked Scot Time (90 minutes). Students will rehearse their presentations; peers will evaluate other students presentations in order to get students ready to present to the school. Students will have to field questions from classmates, teachers, other staff present during rehearsal in order to simulate the Healthcare Fair for the school. Students will be graded based on the [final presentation rubric](https://docs.google.com/document/d/1mnjYRypWSAsO9-hmQvwmfYTEL7w4yEOG69W8Iqg3Sgw/edit?usp=sharing).

**Key Information:** Students will

1. Learn presentation skills (speaking, voice, eye contact, etc.)
2. Explain data in an easy to understand manner to people who may not understand certain aspects of what data is, how it is collected, or why it is collected.
3. Learn how data can be used to drive practice (what professions use data? How can this data collected be used to propose a possible solution to the problem in your topic?)

**Lesson 6 Resources**

* Student projects
* Copies of student handouts/brochures
* Checklist Evaluations