

Science, Social Studies, CTE, World Languages, **2024-2025 Weekly Lesson Planning Document**

# HPELW, Fine Arts, JROTC Week of Monday, \_\_\_\_\_12/09\_\_\_\_through Friday, \_\_12/13/2024

**EDUCATOR’S NAME:** \_\_\_\_\_\_\_Dr. Amar K. Pani\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **SUBJECT:** \_\_\_\_\_\_\_\_\_\_Human Anatomy & Physiology (Honors) Honors\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **MONDAY**  | **TUESDAY**  | **WEDNESDAY**  | **THURSDAY**  | **FRIDAY**  |
| **Chapter 5:**  Skeletal System **Page Number(s): 127-159** It’s suggested to use your curriculum map. | **Case Study** **Investigation** **(CSI), and Intro** **Page:160**  | **Nervous System** **REVIEW** | **Nervous System and Neurotransmission****REVIEW** | **Nervous System and Neurotransmission****REVIEW** | **Nervous System and Neurotransmission****REVIEW** |
| **TN Standard(s):** Grade level standard (include standard notation and language). Which State Standard is your lesson addressing? This should also be on your Whiteboard Protocol.  |  HAP.LS1.7 Diagram a cross-sectional image of the human brain identifying the microscopic components and describing the brain parts that maintain vital functions, and neurotransmission.  |
| **Objective (s):** What specifically should students be able to do at the end of the lesson? The objective is standards-based.  Write the objective in student friendly terms. For example, I can multiply binomials.  This is should also be on your Whiteboard Protocol.  What do you want students to know, understand and be able to do as a result of this lesson? The objective should be written using the stem…  | **I CAN** analyze the anatomical structures of the Nervous System IOT explain their physiological processes of homeostasis, sensation, and Neuronal Communications  | **I CAN** analyze the anatomical structures of the Nervous System IOT explain their physiological processes of homeostasis, sensation, and Neuronal Communications  | **I CAN** dissect and draw a diagram of the human brain IOT identify the microscopic components that maintain the neurotransmission.  | **I CAN** dissect and draw a diagram of the human brain IOT identify the microscopic components that maintain the neurotransmission | **I CAN** dissect and draw a diagram of the human brain IOT identify the microscopic components that maintain the neurotransmission  |
|  | **I CAN….**  |
|  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Possible Misconception (s):** What misconception(s) are you anticipating during this lesson?  | Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the membrane. • Students may think that the Na+ /K+ pumps in neuron and muscle membranes “turn off” during the action potential. • Some students use the imagery of electricity moving down a wire in considering th Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that  | Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the membrane. • Students may think that the Na+ /K+ pumps in neuron and muscle membranes “turn off” during the action potential. • Some students use the imagery of electricity moving down a wire in considering thtreatments. • Tattoos and body piercings involve breaking the skin and therefore carry a risk of infection. • There are health risks associated with body piercings and tattoos. Anyone considering undergoing these procedures should first research them, be aware of the health risks, find a provider who performs the procedure  | Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the membrane. • Students may think that the Na+ /K+ pumps in neuron and muscle membranes “turn off” during the action potential. • Some students use the imagery of electricity moving down a wire in considering th Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the  | Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the membrane. • Students may think that the Na+ /K+ pumps in neuron and muscle membranes “turn off” during the action potential. • Some students use the imagery of electricity moving down a wire in considering thhealth risks associated with body piercings and tattoos. Anyone considering undergoing these procedures should first research them, be aware of the health risks, find a provider who performs the procedure Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are i  | Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the conduction of the action potential. These students do not realize the small number of ions that are involved, and they assume that Na+ entry into the axon during depolarization reverses the Na+ gradient across the membrane. • Students may think that the Na+ /K+ pumps in neuron and muscle membranes “turn off” during the action potential. • Some students use the imagery of electricity moving down a wire in considering thinvolve breaking the skin and therefore carry a risk of infection. • There are health risks associated with body piercings and tattoos. Anyone considering undergoing these procedures should first research them, be aware of the health risks, find a provider who performs the procedure Many students imagine a massive influx and efflux of ions across the neuron’s plasma membrane during the  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Literacy-Based DO NOW:** This literacy-based activity should be ready for students to begin working on upon entering class. Students should have an opportunity to read, write, and/or speak. | Define and describe the human NERVOUS SYSTEM IN YOUR OWN WORDS.   | DRAW, COLOR, AND LABEL a human neuron.   | Identify the microscopic components in TS section.  | Describe ethe neurotransmission with an example  | Explain the neuronal diseases and disfunctions in human.  |
| **Agenda for the Day** Simple outline of lesson segments or activities that is time stamped.  Teacher/class should take 2 minutes or less to review.      | * Do Now *(8 minutes)* ▪ Review Learning

Objective *( minutes)* * Item 3 *( minutes)*
* Item 4 *( minutes)*
* Item 5 *( minutes)* Item 6 *( minutes)*
 | * Do Now *(8 minutes)* ▪ Review Learning

Objective *( minutes)* * Item 3 *( minutes)*
* Item 4 *( minutes)*
* Item 5 *( minutes)* Item 6 *( minutes)*
 | * Do Now *(8 minutes)* ▪ Review Learning

Objective *( minutes)* * Item 3 *( minutes)*
* Item 4 *( minutes)*
* Item 5 *( minutes)* Item 6 *( minutes)*
 | * Do Now *(8 minutes)*
* Review Learning Objective

*( minutes)* * Item 3 *( minutes)*
* Item 4 *( minutes)*
* Item 5 *( minutes)* Item 6 *( minutes)*
 | * Do Now *(8 minutes)* ▪ Review Learning

Objective *( minutes)* * Item 3 *( minutes)*
* Item 4 *( minutes)*
* Item 5 *( minutes)* Item 6 *( minutes)*
 |
| **Beginning of Lesson** **I Do** **Science:** Engage & Explore    | **Suggested Activities Engage • Comic Strip:** **Adventures of the** **Endo-Men! •** **Endocrine System** **Concept Map •** **Crash Course** **Video: Endocrine** **System, Part 1-** **Glands &** **Hormones • Crash Course Video:** **Endocrine System,** **Part 2: Hormone** **Cascades Explore** **EMC AA&P** **Workbook &** **Laboratory** **Manual: • Chapter** **7, pp. 107-129 •** **Laboratory Activity 1:** **Microscopic**  | **Explore EMC AA&P** **Workbook &** **Laboratory Manual: •** **Chapter 8, pp. 130-****136 • Laboratory** **Activity 1, pp.137138: Pupil Reflex • Laboratory Activity 2, p. 139: Knee-Jerk Reflex • Laboratory Activity 3, pp. 140141: Catch Reflex • Makes Me Sweat** **Activity • Dendrites** **Spine Lab Explain •** **Case Study** **Investigation #8, pp. 272-273 Elaborate • A Case Study:** **Chemtrails: A Real** **Public Health** **Concern? pp. 302-****303 Evaluate •** **Chapter 8: Concept**  | **Explore EMC AA&P** **Workbook &** **Laboratory Manual:** **• Chapter 8, pp. 130136 • Laboratory** **Activity 1, pp.137138: Pupil Reflex • Laboratory Activity 2, p. 139: Knee-Jerk Reflex • Laboratory Activity 3, pp. 140141: Catch Reflex • Makes Me Sweat** **Activity • Dendrites** **Spine Lab Explain •** **Case Study** **Investigation #8, pp. 272-273 Elaborate • A Case Study:** **Chemtrails: A Real** **Public Health** **Concern? pp. 302-****303 Evaluate •** **Chapter 8: Concept**  | **Explore EMC AA&P** **Workbook &** **Laboratory Manual: •** **Chapter 8, pp. 130-136 • Laboratory Activity 1, pp.137-138: Pupil Reflex • Laboratory Activity 2, p. 139:** **Knee-Jerk Reflex • Laboratory Activity 3, pp. 140-141: Catch Reflex • Makes Me** **Sweat Activity •** **Dendrites Spine Lab** **Explain • Case Study Investigation #8, pp. 272-273 Elaborate • A Case Study:** **Chemtrails: A Real** **Public Health** **Concern? pp. 302-303**  | **Curricular Resources** **Textbook: Applied** **Anatomy &** **Physiology: A Case** **Study Approach •** **Chapter 8, pp. 272 –** **303 Suggested** **Activities Engage •** **Neurotransmission** **Model • Crash Course** **Video A&P: The** **Nervous System, Part** **1 • Crash Course** **Video: The Nervous System, Part 2: Action!** **Potential! • Crash** **Course Video: The Nervous System, Part 3: Synapses!**  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Identification of** **Normal Endocrine** **Glands, pp.123124 • Laboratory Activity 2: Effects of Adrenaline and Caffeine on** **Daphnia, pp. 125126 Explain •** **Case Study** **Investigation #7, pp. 242-243 Elaborate • Case Study:** **Environmental Hormones, pg.** **270- 271 • Case** **Study: What’s** **Wrong with** **Timothy? • Case** **Study: The Hunger** **Pains**  | **Check, pp. 275, 278, 280, 284, 288, 289,** **294, 296 • Chapter 8 Study Guide, pp. 300-30**  | **Check, pp. 275, 278, 280, 284, 288, 289,** **294, 296 • Chapter 8 Study Guide, pp. 300-301**  | **Evaluate • Chapter 8: Concept Check, pp.** **275, 278, 280, 284, 288,** **289, 294, 296 •** **Chapter 8 Study** **Guide, pp. 300-301**  |  |
| **(05 MINUTES MAX)** **Literacy Based closing activity:** Engage students in reading and writing tasks that assess their understanding of the lesson. Students are drawn back to the objective for the day. |   | Four questions review through Socrative  | Four questions review through Socrative  | Four questions review through Socrative  | Four questions review through Socrative  |
| **SPED Modification (s):** What modifications are being made to accommodate the students receiving special services? |   | Extended time Multiple attempts Tutoring Access to addition resources through etextbook and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through etextbook and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through e-textbook, and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through etextbook, and broken down to their level  |
| **ESL Modification (s):** What modifications are being made to accommodate the students receiving special services? |   | Extended time Multiple attempts Tutoring Access to addition resources through etextbook, and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through etextbook, and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through e-textbook, and broken down to their level  | Extended time Multiple attempts Tutoring Access to addition resources through etextbook, and broken down to their level  |
| **Assessment (s):** How will you know that students have reached the objective? Assessments may include: Pre-assessment, formative assessments, summative assessment, post-assessment, discussions, performance, demonstration, etc.  |  | Formal and Informal assessments to evaluate: How does organization contribute to the proper function of the human body?  | Formal and Informal assessments to evaluate: How do location and direction contribute to anatomical functions?  | Formal and Informal assessments to evaluate: Where and when are negative versus positive feedback loops necessary for maintaining homeostasis   | Formal and Informal assessments to evaluate: Complete and submit Notes, assignments and homework’s for this week of grading  |
| **Corrective Activity (s):** What will I do if the student doesn’t understand the lesson? |  | Tutoring Access to addition resources through etextbook, and broken down to their level  | Tutoring Access to addition resources through etextbook, and broken down to their level  | Tutoring Access to addition resources through e-textbook, and broken down to their level  | Tutoring Access to addition resources through etextbook, and broken down to their level  |
| **Extension/Enrichment Activity** **(s):** What will I do with students who understand quicker than others?   |    | Additional assignments through SAVVVAS that test rigor and provide additional content  | Additional assignments through SAVVVAS that test rigor and provide additional content  | Additional assignments through SAVVVAS that test rigor and provide additional content  | Additional assignments through SAVVVAS that test rigor and provide additional content  |
| **Technology Integration:** How will the students use technology to help them master the objective.  |   | MSCS computers will be used to access homework and in class assignments  | MSCS computers will be used to access homework and in class assignments  | MSCS computers will be used to access homework and in class assignments  | MSCS computers will be used to access homework and in class assignments  |

|  |
| --- |
| **IN THE FOLLOWING PAGES:** **ONLY COMPLETE SECTION(S) BELOW IF YOUR SUBJECT IS IDENTIFIED/LISTED**  |
| **ALL SCIENCE (S):** What is your **resource plan for each of the 5 Es** of inquiry-based science instruction? 1. Engage
2. Explore
3. Explain
4. Elaborate
5. Evaluate
 |  | **Engage** **Explore** **Explain** **Elaborate** **Evaluate**  | **Engage** **Explore** **Explain** **Elaborate** **Evaluate**  | **Engage** **Explore** **Explain** **Elaborate** **Evaluate**  | **Engage** **Explore** **Explain** **Elaborate** **Evaluate**  |
| **ALL SCIENCE (S):** ***(Multiple opportunities to engage in science, Makes since of science content)*** What is yourplan to incorporate technology while incorporating the 5E instructional model? **SUGGESTED OPPORTUNITIES FOR** **TECHNOLOGY** Log into Pearson Savvas Realize platform via Clever and Canvas before accessing identified hyperlinked materials. * Interactivity[: Studying Life](https://www.savvasrealize.com/content/viewer/standalone/loader/view/0d2c2dda-1e27-3879-af7b-35942d8d43cc/17/nonscorable?programId=553df26a-1307-37cd-952f-f1e052907e12&programVersion=14&containerId=ada6bbce-7a7c-3d30-b2b2-aac8c78754a9&containerVersion=15&backUrl=https:%2F%2Fwww.savvasrealize.com%2Fdashboard%2Fprogram%2F553df26a-1307-37cd-952f-f1e052907e12%2F14%2Ftier%2F6a243968-b110-39c0-a7db-da3e2fa25bed%2F15%2Flesson%2Fada6bbce-7a7c-3d30-b2b2-aac8c78754a9%2F15&locale=en&programName=Tennessee%20Miller%20&%20Levine%20Biology=)

(Savvas) * Interactivity[: Prokaryotes and Eukaryotes (](https://www.savvasrealize.com/content/viewer/standalone/loader/view/77129596-546b-3cc5-8998-c3aec8db13d8/17/nonscorable?programId=553df26a-1307-37cd-952f-f1e052907e12&programVersion=14&containerId=1e9138e4-a67f-3312-995c-363936df6385&containerVersion=15&backUrl=https:%2F%2Fwww.savvasrealize.com%2Fdashboard%2Fprogram%2F553df26a-1307-37cd-952f-f1e052907e12%2F14%2Ftier%2F2908a01f-e88b-3ca3-a2b5-8d41f71b9669%2F15%2Flesson%2F1e9138e4-a67f-3312-995c-363936df6385%2F15&locale=en&programName=Tennessee%20Miller%20&%20Levine%20Biology=)Savvas)
* Interactivity[: Multicellular Life](https://www.savvasrealize.com/content/viewer/standalone/loader/view/8e2572b3-d454-3db6-a15c-f7214d50bf67/17/nonscorable?programId=553df26a-1307-37cd-952f-f1e052907e12&programVersion=14&containerId=686cf2be-5198-3075-83bc-0b0ac682df89&containerVersion=15&backUrl=https:%2F%2Fwww.savvasrealize.com%2Fdashboard%2Fprogram%2F553df26a-1307-37cd-952f-f1e052907e12%2F14%2Ftier%2F2908a01f-e88b-3ca3-a2b5-8d41f71b9669%2F15%2Flesson%2F686cf2be-5198-3075-83bc-0b0ac682df89%2F15&locale=en&programName=Tennessee%20Miller%20&%20Levine%20Biology=)

(Savvas) * Interactive Video:

[Characteristics of Life (](https://www.savvasrealize.com/content/viewer/standalone/loader/view/869ed23e-54af-3f4e-91d9-8469a3b0e226/18/nonscorable?programId=553df26a-1307-37cd-952f-f1e052907e12&programVersion=14&containerId=ada6bbce-7a7c-3d30-b2b2-aac8c78754a9&containerVersion=15&backUrl=https:%2F%2Fwww.savvasrealize.com%2Fdashboard%2Fprogram%2F553df26a-1307-37cd-952f-f1e052907e12%2F14%2Ftier%2F6a243968-b110-39c0-a7db-da3e2fa25bed%2F15%2Flesson%2Fada6bbce-7a7c-3d30-b2b2-aac8c78754a9%2F15&locale=en&programName=Tennessee%20Miller%20&%20Levine%20Biology=)Savvas)* Nearpod Video[: Viruses Flocabulary](https://nearpod.com/library/preview/viruses-L67321075)
* Nearpod Video[: Characteristics of Life w](https://nearpod.com/t/science/9th/characteristics-of-life-L81287919)ith the Amoeba Sisters or

YouTube Video[: Characteristics of](https://www.youtube.com/watch?v=cQPVXrV0GNA&t=64s) [Life w](https://www.youtube.com/watch?v=cQPVXrV0GNA&t=64s)ith the Amoeba Sisters Nearpod Video[: Viruses](https://nearpod.com/library/preview/lesson-L81287945) with the Amoeba Sisters or YouTube Video: [Viruses w](https://www.youtube.com/watch?v=8FqlTslU22s)ith the Amoeba Sisters  |   |   |   |   |   |
| **ALL MATH (S):** What **manipulatives** might be integrated into the lesson? What did you learn from using the manipulatives **in advance** of using them in class with students? |   |   |   |   |   |
| **ALGEBRA I:** What **practice problems** are you planning to use for the **Explore, Understand & Apply, Practice & Problem Solving, and Assess & Differentiate** portions of the lesson? What did you learn from working the problems **in advance** of using them in class with students? **TEACHER PLANS:** Components of the textbook’s Instructional Design |   |   |   |   |   |
| **GEOMETRY:** What **activities/practice** problems are you planning to use for **Launch the Lesson, Explore It, Examples & Self-Assessment, and Practice** portions of the lesson? What did you learn from working the problems **in advance** of using them in class with students? **TEACHER PLANS:** Components of the textbook’s Instructional Design |   |   |   |   |   |
| **ALGEBRA II:** What **practice problems** are you planning to use for the **Launch, Explore & Develop, and Reflect & Practice** portions of the lesson? What did you learn from working the problems **in advance** of using them in class with students? **TEACHER PLANS:** Components of the textbook’s Instructional Design  |   |   |   |   |   |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ALL ELA (S):** What text(s) will be used for each phase of gradual release of responsibility? **TEACHER PLANS:** Phases of gradual release.  Have you read and annotated the text(s)? (Show me) · What type of literary text or informational text will you use? · Did the text(s) come from the reading prescriptions? If not, why was this text chosen? · Is the text in the Wonders or myPerspectives curriculum? · What real life examples appear in the text or can be used to help students make meaning from the text? · What components of the text will be difficult for your students? · What is the flow of instruction? Is it aligned to the Gradual Release of Responsibility? Gradual Release Questions · Please show me your exemplar for the I Do. What will be modeled? · What will be done through partner work? Independently? · What student misconceptions are you anticipating and why?  |   |   |   |   |   |
| **ALL ELA (S):** High-Quality Texts: **Core Action 1** Focus each lesson on a highquality text (or multiple texts).Text-Specific Questions: **Core Action 2** Employ questions and tasks, both oral and written, that are textspecific and accurately address the analytical thinking required by the grade-level standards.  |   |   |   |   |   |