|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **GRADE** \_10\_\_  **DETAILED LESSON PLAN** | **School** | **CAMALEY NATIONAL HIGH SCHOOL** | **Grade Level** | \_\_10\_ |
| **Student-Teacher** | **KITZ CERWIN S. RAMIREZ** | **Learning Areas** | **SCIENCE** |
| **Teaching Dates and Time** | **11:00am -12-pm ,2:00-3:00pm(Monday to Friday )** | **Quarter** | \_\_\_3RD \_\_\_\_\_\_ |

|  |  |  |  |
| --- | --- | --- | --- |
| **I. OBJECTIVES** |  | | |
| **A. Content Standard** | The learners demonstrate an understanding of how feedback mechanisms coordinated by the endocrine system. | | |
| **B. Performance Standard** |  | | |
| **C. Learning Competencies/Objectives** | Describe how endocrine system coordinates and regulates these feedback mechanisms to maintain homeostasis. (S10LT-IIIc-36)  Specific Objectives:  a.) Define and Labelling the structures of the endocrine system and its function. b.) Determine different glands and hormones that belongs to endocrine system and its location. c.) Understand how the endocrine system interacts with other body systems, such as the nervous system. | | |
| **II. CONTENT** | Coordinated Functions of the Nervous, Endocrine and Respiratory Systems (THE ENDOCRINE SYSTEM) | | |
| **III. LEARNING RESOURCES** |  | | |
| **A. Instructional Materials** | Information and Communication Technologies  Visual aids (charts) | | |
| **B. References** |  | | |
| 1. **Teacher`s Guide pages** |  | | |
| 1. **Learner`s Materials pages** | Science 10 LM pp. | | |
| 1. **Textbook pages** |  | | |
| 1. **Additional Learning Materials** |  | | |
| **C. Other Learning Resource** | <https://m.youtube.com/watch?v=emvHaBiRY8Q&pp=ygUQZW5kb2NyaW5lIHN5c3RlbQ%3D%3D> | | |
| **D. Science Processes** | Analyzing, Comparing, Interpreting, Inferring and Observing | | |
| **E. Values Integration** | Active Participation, Curiosity, Decision-Making, Keen observer, and Open-Mindedness | | |
| **IV. PROCEDURES** |  | **TEACHER** | **STUDENT** |
| **A. Reviewing Previous lesson or Presenting a new lesson.** | **ELICIT** | **CLASSROOM ROUTINE:**  a. Classroom Conditioning  b. Greetings  c. Prayer  d.Reminder of the classroom protocols  e. Checking of Attendance  **Classroom Conditioning**   * The teacher counts 1,2,3.   **Greetings**   * The teacher will greet the class.   *Hello class, Good Morning*.  **Prayer**   * The teacher will ask who wants to volunteer to lead for a prayer.   *Okay, please remain standing, let us begin our class with the presence of Almighty God.*  *Who wants to lead us in prayer?*  **Reminder of the classroom protocols**   * The teacher reminds the students for classroom protocols.   *Class, before you take your seat, please pick up all the pieces of paper and plastic under your chair.*  *During our class discussion please listen attentively, okay!*  *If you want to say something just raise your hand and you will be acknowledged. Understood class?*  **Checking of Attendance**   * The teacher will monitor the class if there are absent or not present.   *Alright, let`s have an attendance check.*  *Is there anyone of your classmate is absent?*  *Alright, Very Good! Everyone is present, great job class!*  **REVIEW:**   * Begin the class by asking the students on what the previous discussion was.   *Before we start our lesson for today, let us have our review first. What was our topic yesterday?*  *Can someone remind me what we discussed in our previous class?*  *Very Good! Yesterday, we discuss about nervous system..*  *However, can anyone share at least we discussed about the parts and structure?*  *Great job! Your nervous sysytem play a everything* you do. The main parts is   * Briefly explain that today's lesson will focus on how will transmit signals between body and brain..   *Are you all ready to learn about the Endocrine system?* | (As the teacher count, the students will:)  1: arrange yourselves.  2: set focus on the class; and  3: ready to participate and listen.  *Good Morning, Sir!*  *Sir!*  *(The students will pray)*  *(The students pick up all the pieces of papers and plastics under their chairs)*  *Yes, Sir!*  *None, Sir!*  *Sir, our topic yesterday is all about Nervous system .*  SIr*,*the nervous system uses tiny cells called neurons to send messages back and fourth from the brain .  *Yes, Sir!* |
| **B. Establishing a purpose** | **ENGAGE** | * Begin the lesson by asking students about their prior knowledge about Endocrine system and elicit responses from the class. * Engage the students in a brief discussion about the parts and functions of Endocrine System. * Encourage them to share what they already know.   *Alright! Let`s dive into the world of Endocrine System.*  *Before we delved into our lesson, can anyone class share their knowledge about Endocrine system?*  *Alright, very good! Yes, male reproductive system, is a complex set of organs and structures responsible for the production, storage, and delivery of sperm, as well as the production of male sex hormones.*  *Alright, how about can you give me at least an organ of Male Reproductive System?*  *--Penis, Scrotum, Testes, Epididymis, Vas Deferens, Seminal Vesicles, Prostate Gland, Bulbourethral Glands, Urethra*  *Very Good! Those male organs work together to produce, transport, and deliver sperm to the female reproductive system during sexual intercourse.*  *The release of sperm from the male's body, typically during ejaculation, allows for the possibility of fertilizing a female's egg and initiating the process of reproduction.*  *Alright, I guess everyone is ready to listen.* | *Sir, the Male Reproductive System plays a crucial role in human reproduction.*  *Sir, Penis, Scrotum, Testes, Epididymis, Vas Deferens, Seminal Vesicles, Prostate Gland, Bulbourethral Glands, Urethra (not all mention)* |
| **C. Presenting examples/instances of the lesson** | * Show an image of the male reproductive system organs and structures with functions through a presentation to spark their interest and curiosity, through a jumbled words game.   **MOTIVATION:**  **TASK 1: JUMBLED WORDS**   * The teacher will show on screen a photo of a Male Reproductive System Organs with Functions. * The students have to fix and guess the jumbled words of an organs.   *Let`s have first an engagement activity. Before we delved into our main discussion, we have a game called jumble words, I want you to simply guess the proper arrangement of words of an organ of Male Reproductive System, understood?*  *-------Activity Time!*  *Alright class! All of those images of various organs of male reproductive system will be delved or focus on our topic for today.*  *NOTE: Listen carefully class okay? Take down notes during our discussion because later we will have an activity.* | *Yes, Sir!* |
| **D. Discussing new concepts and practicing new skills #1** | **EXPLORE** | * Introduce the concept or provide an overview of Human reproductive system. * Define the male reproductive system.   ***WHAT IS REPRODUCTIVE SYSTEM?***  *-is a collection of organs and structures in the human body that work together to facilitate the creation of new offspring, ensuring the continuation of a species. Its primary function is to produce, transport, and deliver reproductive cells (sperm in males and eggs in females) and, in many species, to provide the environment for fertilization and embryonic development.*  *In humans, the reproductive system is divided into two distinct systems: the male reproductive system and the female reproductive system.*  ***WHAT IS MALE REPRODUCTIVE SYSTEM?***  *-consist of a number of sex organs that are part of human reproductive process.*  *-produces, stores and release the male gametes, or the sperm.*  *-The male reproductive system is the set of organs and structures in the male body responsible for the production, transport, and delivery of sperm, as well as the production of male sex hormones, such as testosterone.*   * Identify and describe the major external and internal components of the male reproductive system, including the penis and scrotum (external organs), and the testes, epididymis, vas deferens, seminal vesicles, prostate gland, bulbourethral glands, and urethra (internal organs).   ***EXTERNAL ORGANS:***   * Penis: Explain how the penis serves a dual function.   ***Penis****: The penis is the male organ responsible for transferring sperm into the female reproductive system during sexual intercourse. It also serves as the passageway for urine to exit the body. The erectile tissue in the penis becomes engorged with blood during sexual arousal, leading to an erection, which is necessary for penetration during sexual intercourse*.   * Scrotum: Explain the significance of the scrotum as the external sac.   ***Scrotum****: The scrotum is a pouch-like structure that houses and protects the testes. It helps regulate the temperature of the testes, keeping them slightly cooler than the body's core temperature, which is essential for proper sperm production and function.*  ***INTERNAL ORGANS:***   * Testes: Explain their role in producing sperm and the hormone testosterone.   ***Testes****: The testes are the primary male reproductive organs responsible for producing sperm through a process called spermatogenesis. They also secrete the hormone testosterone, which plays a crucial role in male secondary sexual characteristics and overall health.*   * Epididymis: Describe its function in storing and maturing sperm.   ***Epididymis****: The epididymis is a coiled tube located on the back of each testis. Its main function is to store, transport, and mature sperm. During their time in the epididymis, sperm gain motility and become capable of fertilization.*   * Vas Deferens: Discuss how it transports sperm from the epididymis to the urethra.   ***Vas Deferens****: The vas deferens, also known as the ductus deferens, is a muscular tube that carries sperm from the epididymis to the urethra. It plays a crucial role in transporting sperm during ejaculation.*   * Seminal Vesicles: Explain their role in producing seminal fluid.   ***Seminal Vesicles****: The seminal vesicles are paired glands that secrete a significant portion of the seminal fluid, which is rich in fructose and other nutrients that provide energy for sperm. This fluid helps nourish and activate the sperm.*   * Prostate Gland: Describe its function in adding more fluid to the seminal fluid.   ***Prostate Gland****: The prostate gland is a walnut-sized organ that produces a fluid that contributes to seminal fluid. This fluid is slightly alkaline and helps neutralize the acidity of the female reproductive tract, enhancing the survival and motility of sperm.*   * Bulbourethral Glands: Discuss their role in producing a lubricating fluid.   ***Bulbourethral Glands****: The bulbourethral glands, also known as Cowper's glands, are small pea-sized structures that produce a clear, viscous fluid. This fluid is released before ejaculation and serves as a lubricant for the urethra, reducing friction during the passage of semen and urine.*   * Urethra: Explain how it serves as a passage for both urine and semen.   ***Urethra****: The urethra is a duct that serves a dual purpose. It carries urine from the bladder and expels it from the body. In the context of the male reproductive system, the urethra also serves as a passage for semen, allowing it to exit the body during ejaculation.* | *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)* |
| **E. Discussion new concepts and practicing new skills # 2** | * Discuss its significance in the context of human reproduction.   *The penis is instrumental in the act of sexual intercourse, where it plays a central role in delivering sperm into the female reproductive tract. This is a crucial step in the journey of sperm towards the egg, a process essential for fertilization.*  *During sexual intercourse, the penis becomes erect, allowing it to be inserted into the female's vagina. Through this act, sperm is released into the female reproductive system, thus setting the stage for the possible fusion of a sperm cell with an egg cell, leading to the formation of a zygote. This is the initial step in the creation of a new life, making the penis a pivotal player in the very foundation of human reproduction.*   * Explain that it plays a crucial role in fertilization and the transmission of genetic material.   *The penis, as an integral part of the male reproductive system, holds immense importance in the grand scheme of human reproduction. Its role in facilitating the delivery of sperm during sexual intercourse and its dual function in the excretion of urine underscore its crucial role in the transmission of genetic material and overall human reproductive processes.*  ***Role in Reproduction:*** *The primary and most fundamental significance of the male reproductive system is its role in human reproduction. It is responsible for the production, transport, and delivery of sperm, which are essential for fertilization. Without functional male reproductive organs, the continuation of the human species would be impossible.*  ***Genetic Transmission:*** *The male reproductive system plays a crucial role in the transmission of genetic material from one generation to the next. Sperm carry half of an individual's genetic information, and during fertilization, they combine with the female's egg to create a unique genetic blueprint for the offspring.*  ***Hormone Regulation:*** *The male reproductive system is responsible for producing and regulating the hormone testosterone. Testosterone not only influences male secondary sexual characteristics (such as facial hair, deep voice, and muscle development) but also has a significant impact on overall health and well-being.*  ***Sexual Function:*** *It is instrumental in sexual function and fertility. The male reproductive system ensures that sexual intercourse can lead to fertilization, allowing for the procreation of offspring.*  *Three main hormones are involved in the functioning of the male reproductive system—testosterone, follicle-stimulating hormone (FSH), and luteinizing hormone (LH).*  *Both LH and FSH are made in the pituitary gland, which is located at the base of the brain. FSH is needed for the production of sperm (spermatogenesis), and LH stimulates the production of testosterone in the testicles. Testosterone plays a role in the development of many male traits, such as muscle strength and mass, bone mass, distribution of fat, and sex drive.* | *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)*  *(The students listen attentively)* |
| **F. Developing mastery (leads to Formative Assessment)** | **EXPLAIN** | * Provide more details about each component, showing diagrams or models or videoclips to help students understand the anatomy and function of the male reproductive system.   *Alright, for further understanding of our lesson, watch these short video clip how does male reproductive system organs work. Watch and listen carefully.* | *(The students listen attentively)* |
| **G. Finding practical applications of concepts and skill in daily living** | **ELABORATE** | **TASK 2: GROUP ACTIVITY: Assembling the Male Reproductive System**   * Divide the class into 3 small groups of 5-10 students each. * **Distribution of Materials:** Provide each group with a labeled illustration of the male reproductive system and a set of organ and structure cutouts. * **Task Instructions:** Explain to the students that their task is to correctly place the organ and structure cutouts on the labeled illustration to assemble the male reproductive system. The goal is to be accurate in positioning the organs and structures. * **Organ Identification:** Distribute the handouts with organ names and brief descriptions. Instruct the students to read through the descriptions to understand the functions and roles of each organ and structure. * **Assembling the System:** Set a time limit for the activity (e.g., 20 minutes). Students should work together within their groups to discuss, decide, and place each organ and structure in the correct location on the illustration.   *Alright class! Listen, I want you to do this activity by group, okay, so I`ll be dividing you into 3 groups.*  *Allow me to explain the activity.*  *I`ll be providing the materials, there is an illustration or an image of a Male Reproductive System, included the set of organ and structure paper cutouts, as well as a brief description of the organs on it.*  *What you going to do is that, just simply assemble or place the accurate or correct organs and structures cutouts of male reproductive system in a given illustration, okay?*  *Understood Class?*  *Additionally, I`ll be giving you ten (10) minutes to finish the task, okay. After that, I want in your group, one representative to proceed in front to present your finished task, okay?*  *Alright, work hand in hand class, this is a collaborative effort, so you may now start!*   * **Monitoring and Assistance:** Circulate around the classroom to observe group progress and answer any questions that may arise. Encourage students to collaborate and discuss their choices with their group members. * **Review and Discussion:** After the time limit is reached, reconvene as a class. Each group should present their assembled male reproductive system to the class. They can explain why they placed each organ where they did and discuss the functions of each component.   *Alright, class! Time is up! Finish or not finish, each group now, present your finished task in front.*   * **Class Discussion:** As a class, discuss the different group placements and verify the correct positions for each organ and structure. Emphasize the importance of accuracy and understanding the functions of these components.   *Verifying the correct positions for each organ and structure.* | *(The students are group into 3)*  *(Proceed to their group members)*  *Yes, Sir!*  *Yes, Sir!*  *(The students present in class their finished task)* |
| **H. Making Generalization and abstraction about the lesson** | * Summarize the main points covered during the lesson, highlighting the organs and functions.   *Alright to sum up everything, again, what are the male organs? We have?*  *-Penis, Scrotum, Testes, Epididymis, Vas Deferens, Seminal Vesicles, Prostate Gland, Bulbourethral Glands, Urethra*  *These organs and structures work together to produce, store, transport, and deliver sperm for fertilization during sexual intercourse. The male reproductive system's main function is to ensure the transmission of genetic material from the male to the female, contributing to the creation of offspring.*   * Emphasize the significance of Male Reproductive System in the human reproduction.   *The male reproductive system, with the penis as a central component, holds immense significance.*  *The primary and most fundamental significance of the male reproductive system is its role in human reproduction.*  *It is responsible for the production, transport, and delivery of sperm, which are essential for fertilization.*  *Without functional male reproductive organs, the continuation of the human species would be impossible.*  *Alright, understood class?*   * Provide additional resources for students who want to delve deeper into the subject. | *Sir, Penis, Scrotum, Testes, Epididymis, Vas Deferens, Seminal Vesicles, Prostate Gland, Bulbourethral Glands, Urethra*  *Yes, Sir!* |
| **I. Evaluating Learning** | **EVALUATE** | *Now, bring out your ¼ sheet of paper and answer the following questions to check if you really understood our topic for today.*  **TASK 3: MULTIPLE CHOICE TEST**  **Instructions: Read and understand carefully. Write your answers on your paper.**  1. What is the primary function of the male reproductive system?  a. Production of eggs  **b. Delivery of sperm**  c. Hormone regulation  d. Uterine development  2. Which organ in the male reproductive system is responsible for producing sperm?  a. Epididymis  b. Prostate gland  c. Vas deferens  **d. Testes**  3. What is the function of the seminal vesicles in the male reproductive system?  a. Sperm storage  b. Producing sperm  **c. Producing seminal fluid**  d. Hormone regulation  4. Which hormone is primarily produced by the male reproductive system and influences secondary sexual characteristics?  a. Estrogen  b. Progesterone  **c. Testosterone**  d. Prolactin  5. What is the purpose of the bulbourethral glands in the male reproductive system?  a. Production of sperm  **b. Lubricating the urethra**  c. Sperm storage  d. Hormone regulation  6. During sexual intercourse, what is the role of the penis in the male reproductive system?  a. Production of sperm  b. Transport of sperm  **c. Delivery of sperm**  d. Sperm storage  7. Which part of the male reproductive system houses and protects the testes while helping to regulate their temperature?  a. Epididymis  b. Seminal vesicles  **c. Scrotum**  d. Vas deferens  8. What is the purpose of the vas deferens in the male reproductive system?  a. Sperm storage  b. Lubrication  **c. Transport of sperm**  d. Hormone regulation  9. What is the primary function of the prostate gland in the male reproductive system?  a. Production of sperm  **b. Adding fluid to seminal fluid**  c. Lubricating the urethra  d. Sperm storage  10. What is the significance of the male reproductive system in human reproduction?  a. It has no significant role in human reproduction.  b. It produces eggs for fertilization.  **c. It produces sperm and delivers them to the female reproductive tract.**  d. It regulates the female reproductive system. | |
| **J. Extending Learning/Additional activities for application or remediation** | **EXTEND** | * Provide them an assignment or activity. * Make available to students’ the instructional materials such as books and video resources about the study of Male Reproductive System, for them to broaden their understanding and have them to explore, read and watch on their most availability.   *Alright, for your assignment, further research and define what is Endocrine System. That would be our next topic.*  *Okay, Any questions? Clarifications? Violent reactions?*  *If none, please do arrange your chairs and pick up all pieces of papers and plastics under your chair.*  *That’s it for today, See you in next class! Goodbye!* | *None, Sir!* |
| **V. REMARKS** |  |  | |
| **VI. REFLECTION** |  |  | |
| 1. **No. of learners who earned 80% in the evaluation** |  |  | |
| 1. **No. of Learners who require additional activities for remediation** |  |  | |
| 1. **Did the Remedial lessons work? No. of learners who have caught up with the lesson** |  |  | |
| 1. **No. of Learners who continue to require remediation** |  |  | |
| 1. **Which of my teaching strategies work well? Why did these work?** |  |  | |
| 1. **What difficulties did I encounter which my principal or supervisor can help me solve?** |  |  | |
| 1. **What innovation or localized materials did I use/discover which I wish to share with other teachers?** |  |  | |

*Prepared by:*

**KITZ CERWIN S. RAMIREZ**

Practice Teacher