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| : **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** | **11:00-12:00 & 2:00-3:00**  **March 6,2024 Wednesday** | **Quarter** | **3rd Quarter** |

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| **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 Label the structures of the endocrine system and its function. b.) Determine the different glands and hormones that belongs to endocrine system and its location. c.) Explain the endocrine systems interacts with the nervous system. | | |
| **II. CONTENT** | **Coordinated Functions of the Nervous, Endocrine and Reproductive Systems (THE ENDOCRINE SYSTEM)** | | |
| **III. LEARNING RESOURCES** |  | | |
| **A. Instructional Materials** | * Slide presentation * Charts and Illustration | | |
| **B. References** |  | | |
| 1. **Teacher`s Guide pages** |  | | |
| 1. **Learner`s Materials pages** | * Science 10 LM pp.240-247 | | |
| 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, and Observing | | |
| **E. Values Integration** | * Active Participation, Curiosity, Decision-Making, Keen observer, and Open-Mindedness | | |
| **IV. PROCEDURES** |  | **TEACHER** | **STUDENT** |
| 1. **Preliminary Activities**   **B. Reviewing Previous lesson or presenting a new lesson.** | **ELICIT** | Good morning class!  Class president kindly lead the prayer  May I request everyone to all stand and let us feel the presence of the lord.  Class president kindly lead the prayer  How are you today?  Okay That’s great. I'm glad that all of you are fine and no one is sick*.*   1. **Classroom management**   Before we start, kindly pick up the pieces of trash under your chair and arrange yourself properly.   1. **Checking of attendance**   Who’s the class secretary of this section? Kindly check the attendance of your classmates. However, I will call your name to know you and familiarize your name  Is there any absent today?  Very good! I'm glad that all of you are present today*.*  That’s great class!  Before we proceed to our new lesson, may we have a short recap about our lesson yesterday?  What was our last discussion all about?    Very good! Do you have any questions for that?  Now, let’s play a game first. | Good morning Sir Cerwin,  Were fine and feel better Sir.  Okay sir  None sir  None Sir, all of us are present today.  None Sir, all of us are present today.  Yes Sir, I’m the secretary  We discussed about the Endocrine system  The endocrine system is made of glands that make hormones. Hormones are the body's chemical messengers. They carry information and instructions from one set of cells to another. The endocrine (pronounced: EN-duh-krin) system influences almost every cell, organ, and function of our bodies   None sir! |
| 1. **Establishing a purpose** | **ENGAGE** | Activity.1 **ARRANGING THE LETTERS TO FORM THE WORDS.**  Directions; Look at the following words. Rearrange the letters to form the name of each picture.  **ARRANGE ME;**  **1**.SEARCNAP - C:\Users\kr677\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\16A93E39.tmp **2.** SUMALAHTOPYH - C:\Users\kr677\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\83A7F5AF.tmp  **3.**NALDG DOIRYHT- Thyroid nodules - Symptoms & causes - Mayo Clinic  **4**. SUMYHT GDLAN- C:\Users\kr677\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\F7939792.tmp  **5**.LEANIP GDLAN - C:\Users\kr677\AppData\Local\Microsoft\Windows\INetCache\Content.MSO\C0F0ED70.tmp | -PANCREAS  *-HYPOTHALAMUS*  -THYROID GlAND  -THYMUS GLAND  -PINEAL GLAND |
| 1. **Presenting examples/instances of the lesson** | Based on the game that we play do you have any idea on what our topic for will be today?  That’s correct! But specifically, our topic for today is all about the endocrine glands and their hormones.   Do you have any idea on what is endocrine system?  Very Good! It is essential in regulating growth and development, metabolism, as well as reproductive processes and mood.  Very Good! Are there any questions? | Our topic for today is all about the endocrine system.  Yes Sir.  Endocrine Glands release hormones into the bloodstream. This let the hormones travel to cells in other parts of the body. The endocrine hormones help control mood ,growth, and development ,the way our organs work ,metabolism ,and reproduction. |
| 1. **Discussing new concepts and practicing new skills #1** | **EXPLORE** | **The Endocrine Glands, Location, Hormones Released and Function.**  **What is Endocrine Glands and Their Functions**  1**.What is Pituitary Gland?**  ***2***.**What is ThyroidGland*?***  **3. What is parathyroid gland?**  **4.What is thymus?**  **5.What is adrenal?**  **6.What is Pancreas?**  **7. What is testes {Males}**  **8. What is ovaries {Females}?** | ***-*** it is in the base of the brain.Often referred to as the "master gland," it controls other endocrine glands. It influences growth, metabolism, and the functioning of other hormonal glands- Growth hormone (GH), thyroid-stimulating hormone (TSH), adrenocorticotropic hormone (ACTH), among others.  - Regulates metabolism, energy production, and body temperature. Thyroxine (T4) and Tridothyronine (T3), which control metabolism.  **-**it is in the front of the neck, below the Adam's apple.in the neck.  -Thymosin, enables the body produce a certain antibody.  -Adrenaline, prepares for a body for action, control’s the heart rate and breathing in times of emergency.  -between the kidneys, Insulin and Glucagon regulates blood sugar.  -lower abdomen, Androgen and Testosterone, control maturation of male characteristics.  -lower abdomen, estrogen and progesterone, Influence traits and support reproductive function. |
| 1. **Discussion new concepts and practicing new skills # 2** | **Activity 2:** Direction: Study each picture that depicts the involvement of a particular gland in the endocrine system. Write down the name of the endocrine gland and explain its effect, according to its function.   1. A girl eating sweets.     2.) A kid growing taller.  3. A sick person in bed  A person lying in a hospital bed  Description automatically generated  4. A pregnant woman A pregnant person holding her belly  Description automatically generated  5.Athletes burn up calories during exerciseA group of women working out with weights  Description automatically generated | **Pancreas**  **Pituitary gland**  **Thymus gland**  **Ovaries**  **Thyroid gland** |
| 1. **Developing mastery (leads to Formative Assessment)** | **EXPLAIN** | The students will play “Label it Right “  **Activity 1: Label It Right!**  Label us have the activity label it right Direction: Label the different parts of glands and match their corresponding functions using the materials provided.  ***Functions:***   * Regulates the body metabolism. * Influence female traits and support reproductive system. * Regulates blood sugar. * Controls the calcium levels in the body. * Prepares the body for action, controls the heart rate and breathing in times of emergency. * Enables the body to produce certain antibodies. * Control maturation and male traits.   Stimulates growth and controls the function of the other glands.  Now, let’s study the different endocrine glands, their location, hormones released and their function.   (The teacher will post the table list of the of all the major glands in the body, with their function, location and hormones they released.) | -pituitary  -thhyroid  -parathyroid  -thymus -adrenal  -pancreas  -testes  -ovaries  **-** |
| 1. **Finding practical applications of concepts and skill in daily living** |  | **SUMMARIZATION**  **The teacher will ask some questions to the students about their topic.**  1.What is the endocrine system, and what is its primary function in the body?   1. 2.How does the endocrine system differ from the nervous system in terms of communication and regulation within the body? 2. 3.What are hormones, and how do they function within the endocrine system? 3. 4.Describe the structure and function of the pituitary gland. What hormones does it produce, and what roles do these hormones play in the body? 4. 5,What is the thyroid gland, and what hormones does it produce? How do these hormones regulate metabolism and growth? |  |
| 1. **Making Generalization and abstraction about the lesson** | **ELABORATE** | As we conclude our discussion of the endocrine system, it's crucial to grasp the intricate network of glands and hormones that regulate various physiological processes in the body.  Now, let’s look back, what is endocrine system?        Very good! What are the major endocrine glands in the body and their function?   **Pituitary Gland**    **Parathyroid**   **Thymus**    **Adrenal**    **Pancreas**    **testes**   **Ovaries** i  Excellent! I think you are all now ready for the quiz. | The endocrine system is composed of glands that secrete different types of hormones that affect almost every cell organ and function of our body.  it regulates body metabolism and causes storage of calcium in bone.    it controls the calcium levels in the body and normalizes the bone growth.  it enables the body to produce certain antibodies.   it prepares the body for action, controls the heart rate and breathing in times of emergency.  it regulates blood sugar levels.  controls maturation and male characteristics.  it influences female traits and support reproductive function. |
| 1. **Evaluating Learning** | **EVALUATE** | Let's evaluate what you've gained in understanding about endocrine glands today.  **SHORT QUIZ (MULTIPLE CHOICES)**  Directions : Choose the correct answer.  1.    Which of these is true of the endocrine system?  A.   secretes hormones that are transported to target cells by blood  B.   causes changes in metabolic activities  C.   effects are prolonged  D.   All of above are true.  2.    Name the gland that is located at the base of the throat, just inferior to the laryngeal prominence (Adam's apple).  A.   Pituitary.  B.   Pineal gland.  C.   Hypothalamus.  **D.   Thyroid**.  3.    What gland is located just superior to the kidneys?  A.   Pituitary.  **B.   Adrenal.**  C.   Pancreas.  D.   ovaries  4.    In the pancreas, which are the cells that secrete insulin, decrease the blood levels of glucose.  A.   delta.  B.   alpha.  C.   beta.  **D.   beta.**  5.    The endocrine gland responsible for the body's circadian rhythm is the:  A.   Thymus gland.  **B.   Pineal gland**.  C.   Parathyroid gland.  D.   Pituitary gland.  6  Which of these is not an endocrine property?  A.   hormones reach targets through the blood  B.   effects are slow and cyclic  **C.   rapid acting effects**  D.   effects caused by chemicals.   7.    Which of these is not an endocrine gland?  A.   Pancreas.  B.   Testes.  **C.   Salivary gland.**  D.   Parathyroid.  8..Which if the following gland which can be classified as an endocrine and an exocrine gland?  A.   Thyroid.  B.   Thymus.  **C.   Pancreas**.  D.   Pituitary.   9.. The secretions from which of these glands differs between males and females?  A.   Adrenal.  B.   Parathyroid.  **C.   Gonadal**.  D.   Pancreas.  10..Which gland controls basal metabolic rate (BMR)?  **A.   Thyroid.**  B.   Parathyroid.  C.   Testes.  D.   Pancreas | **1.D.   All of above are true.**  **2.D.   Thyroid**.  **3.B   Adrenal**  **4..   beta.**  **5.B.   Pineal gland**  **6.C.   rapid acting effects**  **7.C.   Salivary gland.**  **8.C.   Pancreas**  **9.C.   Gonadal**.  **10.A.   Thyroid.** |
| 1. **Extending Learning/Additional activities for application or remediation** | **EXTEND** | ASSIGNMENT: Draw and Label the parts and functions of Male and Female Reproductive System? |  |
| **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 this 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:* Noted by:**KITZ CERWIN RAMIREZ RAPHAEL MATHEW MARARAC**   
 Practice Teacher Cooperating Teacher