8

DepED
DEPARTMENT OF EDUCATION

Lesson Exemplar for Science

Quarter 1
Lesson
4

Lesson Exemplar for Science Grade 8
Quarter 1: Lesson 4 of 5 (Week 6)
SY 2025-2026

Development Team

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SCIENCE /QUARTER 1 / GRADE 8

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	The learners learn that: 1. Classification of living things shows life's diversity.
B. Performance Standards	By the end of the Quarter, learners will explain that the classification of living things shows the diversity and unity of living things.
C. Learning Competencies and Objectives	***Learning Competency*** 1. The student will explain why humans are classified under Class Mammalia and the Order Primates. ***Learning Objectives:*** Students should be able to: 1. Discuss similarities and differences among individuals, emphasizing the diversity within human species 2. Categorize human organisms according to their taxonomic hierarchy 3. Comprehend the traits of primates and explore why humans are classified within this category
D. Content	Topic: Classification of Humans Sub-topic: Human Taxonomy
E. Integration	**SDG 15: Life on Land**: Taxonomic classification is crucial for understanding and preserving biodiversity, by organizing and categorizing species, the taxonomic system helps in monitoring changes in ecosystems, identifying threatened species, and guiding conservation efforts. **SDG 14: Life Below Water**: A taxonomic classification system is also relevant to the conservation and sustainable management of marine biodiversity. By categorizing marine organisms, scientists can assess the health of marine ecosystems, identify vulnerable species, and develop strategies for sustainable fisheries management and marine conservation. **SDG 3: Good Health and Well-being**: Taxonomic classification is important in various aspects of health, including identifying disease vectors, understanding the ecology of infectious diseases, and discovering new pharmaceutical compounds from natural sources.

II. LEARNING RESOURCES

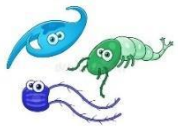
Bailey, R. (2024, May 19). The 6 kingdoms of life. ThoughtCo. Retrieved from: https://www.thoughtco.com/six-kingdoms-of-life-373414

Building the tree of life. (n.d.). Retrieved from: https://www.etsu.edu/uschool/faculty/tadlockd/documents/bio_chpt18sec3show.pdf

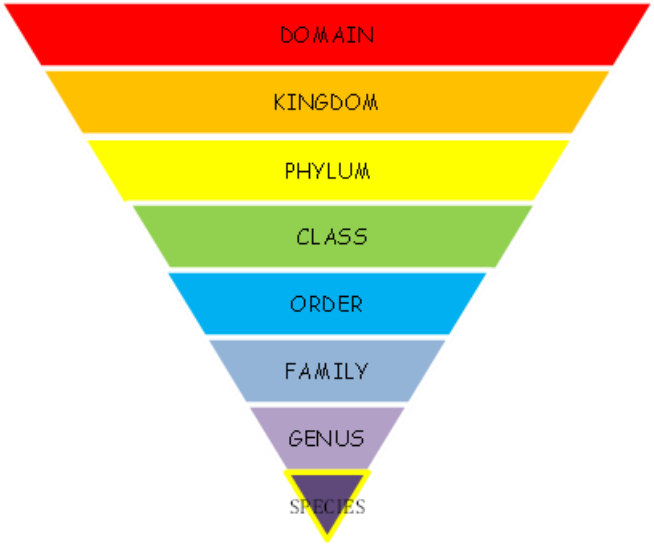
Libretexts. (2023, August 31). 1.3: Classification - The three-domain system. Biology LibreTexts. Retrieved from: https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology_(Kaiser)/Unit_1%3A_Introduction_to_Microbiology_and_Prokaryotic_Cell_Anatomy/1%3A_Fundamentals_of_Microbiology/1.3%3A_Classification_-_The_Three_Domain_System

Practical Science 8. (2018). 4/F SEDCCO 1 Bldg. 120 Thailand corner Legazpi Streets: DIWA Learning Systems INC.

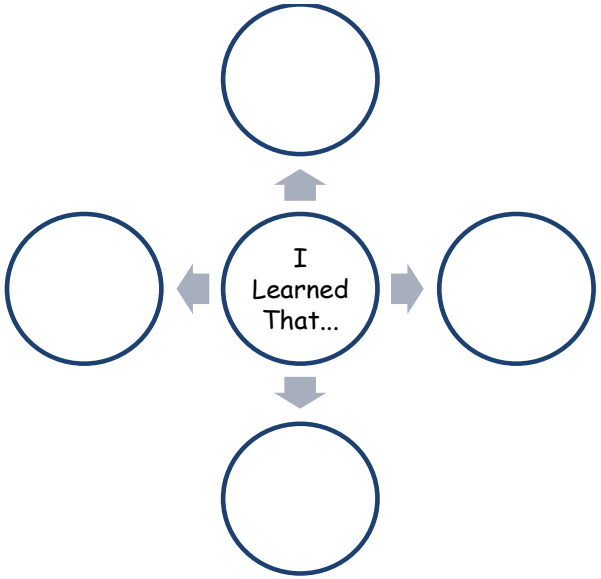
Practical Science 9. (2018). 4/F SEDCCO 1 Bldg. 120 Thailand corner Legazpi Street: DIWA Learning System.

III. TEACHING AND LEARNING PROCEDURE		NOTES TO TEACHERS
A. Activating Prior Knowledge	**Day 1** **1. Short Review** **Activity 1.** Present these diagrams to the class and instruct students to write down the general characteristics of each of the three domains of life. Characteristics 	Present these diagrams to the class and instruct students to write down the general characteristics of each of the three domains of life. Image Source: istockphoto.com/bacteria
		Image Source: alamy.it/girl
		Image Source: freeimages.com/plankton

	2. Feedback (Optional)	
B. Establishing Lesson Purpose	**1. Lesson Purpose** **Activity 2.** Let the students draw and label their own body, highlighting features that make them unique as individuals. *Guide Questions:* 1. I am unique because_____ 2. I am a human because_____ 3. I belong to the Kingdom Animalia because_____ 4. I belong to Order Primate because_____ **2. Unlocking Content Area Vocabulary** Humans are unique compared to other organisms because of our advanced cognitive abilities, physical structures and social abilities. But why? Because Human belongs to class Mammalia. ○ **Class Mammalia** is a taxonomic classification within animal kingdom that includes mammals. Mammals are characterized by several distinct features, including warm-blooded (endothermic), having hair of fur on their bodies, giving birth to live young (with few exceptions) and producing milk to nourish their offspring. Typically, they have specialized teeth adapted to various diets and possess highly developed brains, which contribute to their diverse behaviors and adaptability to different environments. ○ **Order Primate** - Humans are classified under the order primate because we share numerous anatomical, physiological and behavioral characteristics with other members of this group. These include features such as grasping hands with opposable thumbs, forward-facing eyes for binocular vision, complex social structures and relatively large brains.	See Learning Activity Sheet: *Activity #2: Me, Myself and I* Encourage creativity and personal expression. Let the students share their drawing with the group. Discuss similarities and differences among individuals' drawings emphasizing the diversity within human species. You may select other terms that need to be unlocked.

C. Developing and Deepening Understanding	**Day 2** **1. Explicitation** • You may present these videos: o The Three Different ways Mammals give Birth- Ted. Ed. https://www.youtube.com/watch?v=sz3Yv3On4lE&t=37s o Your place in the Primates Family Tree. https://www.youtube.com/watch?v=dUKV02uYEu0&t=177s **2. Worked Example** **Activity 3.** • Human Taxonomic Rank  • Let the students answer the Guide Questions: *Guide Questions:* 1. How do scientists group humans into different races or populations, and what are some problems with this approach? 2.How has our understanding of human diversity changed over time, and what role do new scientific discoveries play in this?	See Learning Activity Sheet: *Activity #3: Human Taxonomic Rank* Allow the students to determine the taxonomic classification of humans. Assess and evaluate their answers.

	*3.*How do genetics help us understand how humans are classified and related to each other? 4.How does understanding human diversity help us in medicine, anthropology, and public health? **Day 3** **3. Lesson Activity** ● **Taxonomic Puzzle of the Forest Guardians** You are a Biologist participating in a summer camp focused on exploring the diversity of life on Mount Hamiguitan Range Wildlife Sanctuary in Davao Oriental. During an expedition deep into the forest you stumble upon an isolated tribe known as the "Forest Guardian". As you observe their customs and interact with the tribe members, you notice striking similarities between their physical features and those of humans. Intrigued by this discovery, you embark on a journey to understand the taxonomic classification of the "Forest Guardians" and their connection to the broader family tree. ● *In their notebook ask them to take note of the following:* 1. What are the Physical characteristics, behaviors and cultural practices of the forest Guardians? 2. Present similarities and differences between the Forest Guardian and human. How do these observations inform your understanding of their taxonomic rank within the primate order? 3. Create Taxonomic Classification diagram for the Forest Guardian 4. How does studying the taxonomy of Human, like the Forest Guardians contributes to our knowledge of human origins and our interconnectedness with other living organisms? **Day 4** Presentation of the output.	For this activity, you may arrange the students into groups to encourage collaboration. Highlight creativity and imagination for this activity. You may develop a rubric to evaluate the presentation of the students.

D. Making Generalizations	**1. Learners' Takeaways** Let the students supply this concept map to assess learners' learning.  **2. Reflection on Learning** In their notebook, the students will write a journal entry consisting of 3-4 sentences, answering ANY of the following questions. *a. What did I learn about this lesson that I did not know before?* *b. Which topic was easy for me?* *c. Which topic was challenging to learn?* *d. Do I understand it now?*	The teacher may propose other activities for the learners to describe their understanding of a concept, idea, and skill covered in the previous topic. The teacher should allow the learners to document their ways on how they think about their learning (metacognition).

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		NOTES TO TEACHERS
A. Evaluating Learning	**1. Formative Assessment** Choose the letter of the correct answer. 1. Which of the following is a correct hierarchy of taxonomic classification, from broadest to most specific? a. Class, Order, Genus, Family, Species b. Kingdom, Phylum, Class, Order, Family, Genus, Species c. Domain, Phylum, Class, Order, Family, Genus, Species d. Kingdom, Class, Order, Phylum, Family, Genus, Species 2. Which taxonomic rank is the most inclusive and encompasses all other ranks? a. Species b. Genus c. Kingdom d. Class 3. In the Scientific name *Homo sapiens*, what does "sapiens" refer to? a. Genus b. Species c. Family d. Order 4. The taxonomic rank "Domain" is used to classify organisms based on: a. Anatomical similarities b. Genetic differences c. Habitat d. Feeding habit 5. Which kingdom in the six-kingdom classification system consists of organisms that are multicellular, photosynthetic and have cell walls made of cellulose a. Animalia b. Fungi	Answer 1. C 2. C 3. B 4. B 5. C 6. A 7. C 8. C 9. A 10. B

c. Plantae
d. Protista

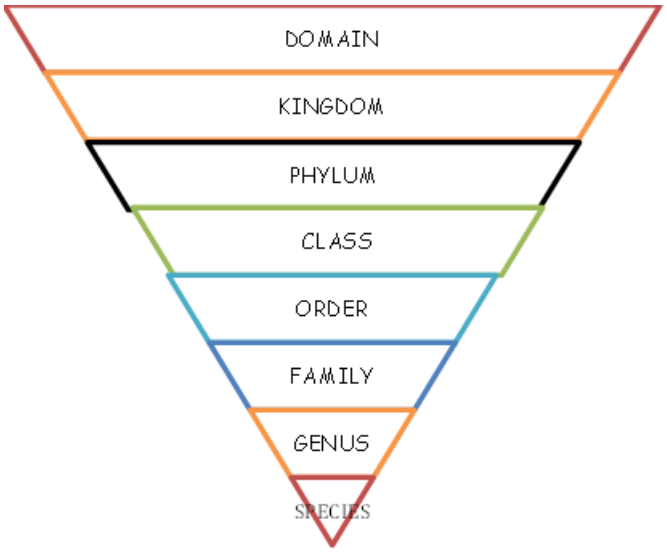
6. The Kingdom Animalia is characterized by organisms that:
a. Are multicellular and heterotrophic
b. Obtain energy through photosynthesis
c. Have cell walls made of chitin
d. Lack of true nucleus

7. Which Kingdom in the six-kingdom classification system includes organisms that are eukaryotic, mostly multicellular and obtain energy through ingestion?
a. Plantae
b. Fungi
c. Animalia
d. Protista

8. The kingdom Fungi is characterized by organisms that:
a. Are Photosynthetic and unicellular
b. Obtain energy through ingestion and are multicellular
c. Obtain energy through absorption and have cell walls made of chitin
d. Lack of true nucleus and prokaryotic.

9. Which of the following three domains includes organisms that are known for their ability to thrive in extreme environments such as hot springs and deep-sea vents?
a. Archaea
b. Bacteria
c. Eukarya

10. Which domain in the three-domain system includes organisms that are characterized by their diverse metabolic capabilities, including photosynthesis, decomposition and nitrogen fixation?
a. Archaea
b. Bacteria
c. Eukarya

<table>
<tr><td></td><td colspan="3">Test II: Label the diagram below highlighting the Human Taxonomic Rank
 

2. Homework (Optional)</td><td>The teacher may give homework for extended deliberate practice.</td></tr>
<tr><td rowspan="3">A. Teacher's Remarks</td><td>Note observations on any of the following areas:</td><td>Effective Practices</td><td>Problems Encountered</td><td rowspan="3">This lesson design component prompts the teacher to record relevant observations and/or critical teaching events that he/she can reflect on to assess the achievement of objectives. The documenting of experiences is guided by possible areas for observation including teaching strategies employed, instructional materials used, learners'</td></tr>
<tr><td>strategies explored</td><td></td><td></td></tr>
<tr><td>materials used</td><td></td><td></td></tr>
</table>

	learner engagement/ interaction			engagement in the tasks, and other notable instructional areas. Notes here can also be on tasks that will be continued the next day or additional activities needed.
	others			
B. Teacher's Reflection	*Reflection guide or prompt can be on:* ▪ *principles behind the teaching* *What principles and beliefs informed my lesson?* *Why did I teach the lesson the way I did?* ▪ *students* *What roles did my students play in my lesson?* *What did my students learn? How did they learn?* ▪ *ways forward* *What could I have done differently?* *What can I explore in the next lesson?*			This lesson design component guides the teacher in reflecting on and for practice. Entries on this component will serve as inputs for the LAC sessions, which can center on sharing the best practices discussing problems encountered and actions to be taken; and identifying anticipated challenges and intended solutions. Guide questions or prompts may be provided here.