

**Lesson Title (Essential Question):** What are the 5 key nutrients and how do they affect the body?

**Instructional Time(minutes/class periods):** 56 minutes/1 class

Lesson Type (Circle):

**Informational**

**Operational**

**Managerial**

**MD Academic Standard(s) and Anchors(s) Addressed**

- **Health (Food and Health) 1.** Analyze the benefits of maintaining a healthy weight.

**National Agriculture Standards and Benchmarks Addressed**

**AS.03.01.02.b.** Design and defend the use of a nutritional program by demonstrating the relationship between the nutrient requirements and the feedstuffs provided.

**Objectives:** *Upon completion of class instruction, students will be able to:*

1. Critique pet foods to teacher satisfaction.
2. Identify the 6 key nutrients with 100% accuracy.
3. Research a key nutrient to peer satisfaction.

**Realia (Tools, Equipment and Supplies):**

- Index Cards (21)
- Poster Board (6)
- Markers (1 pack/group)
- Computer Paper (4/s)
- Student Ipads (1/s)

**Bellwork:**  
*(3 minutes)*

List what you think the 5 most important things are to include in your animals diet.

**Anticipated Answers:**

Water, Vitamins, Minerals, Protein, Carbs

**Summary of Content and Teaching Strategies**

<b><u>Time</u></b>	<b><u>Teacher Says/Does:</u></b>	<b><u>Student Does:</u></b>
2 minutes	<b>Review Objectives</b>	Read objectives aloud
5 minutes	<b>Interest Approach</b> Before class, students are given an index card with name of a country on it. The number of cards per country is roughly indicative of the population density in each of the countries. An example of this distribution could be: U.S. - 2 cards (Cookies) Brazil - 1 card (Crackers) India - 5 cards (Fruit) Hungary - 1 card (Carrots) China - 7 cards (Donuts) Kenya - 1 card (Popcorn) Each group will choose a leader, that leader is then given a different food item that will represent the food for that country. The leader for each group will the distribute the food to the other members of their country in any matter they see fit. Then each group will share to the rest of the class, their country name, the total amount of food, what the food was, and the method of distribution. After each group reports, teacher lead discussion will follow with the subsequent questions being asked: 1. What country has the most people? Most food? Why aren't they the same country? 2. Did some of the leaders distribute food differently? Why? Students should discover through the discussion that there are two main issues: amount of available food and distribution.  Tie this into modern agriculture and large animals. Where do we want our animals to be? A: Where this is plenty of food, but we also want them to be eating healthy foods.	Participate in global food activity

<p>10 minutes</p>	<p><b>Objective 1: Critique pet food labels</b>          Direct students to their packet that they began working through yesterday. Walk through the first example with students on the whiteboard so that they have a better understanding of how to calculate the price and cups per day, etc.</p> <p>-Provide students with 10 minutes to work through this packet now that we have clarified the task. Let students know that if they are not finished with the packet at the end of the 10 minutes that it is okay and we will come back to it later.</p>	<p>Continue working on pet food analysis packet</p>
<p>5 minutes</p>	<p><b>Objective 2: Identify the 6 key nutrients</b>          Have students discuss with their group members what the 6 key nutrients are in an animals diet. Do not allow students to use their technology. Instruct students to raise their hand once they have come up with 6 key nutrients.</p>	<p>Participate in group discussion regarding the 6 key nutrients followed by a class discussion regarding the 6 key nutrients</p>
<p>20 minutes</p>	<p><b>Objective 3: Research a key nutrient</b>          Students will be choosing one of their 6 key nutrients to conduct research on. After they have chosen a nutrient, they will need to find 5 “golden nuggets” about their nutrient. The nutrient will need to be placed on a poster board with the 5 “golden nuggets” and then hung up throughout the room.</p> <p>After the 20 minutes has expired, signal groups to stop where they are and hang their poster up throughout the room.</p> <p>Foldables:          Demonstrate to students how to construct a foldable with 4 pieces of paper</p>	<p>Students will be working with their table groups to create a poster highlighting 5 key things about their nutrient.  <a href="https://www.healthline.com/health/food-nutrition/six-essential-nutrients#protein">https://www.healthline.com/health/food-nutrition/six-essential-nutrients#protein</a></p> <p>Create foldable</p>

5 minutes at each station	<p>Taking 4 pieces of paper, offsetting them, and folding the top portion down to create a flip book almost.</p> <p>Have students rotate through the nutrients in groups of 4. Let students know that their task is to create a foldable that has the name of the nutrient on the outside and the facts on the inside of the fold to act as a flash card.</p> <p>Bring students back together with 10 minutes left in class.</p>	Circulate through the nutrient posters writing down the nutrient and the facts in your foldable
5 minutes	<p>Wrap Up: Facilitate discussion regarding how we accomplished our objectives.</p> <ol style="list-style-type: none"> <li>1: Pet food analysis worksheet</li> <li>2: Discussion regarding the 6 key nutrients</li> <li>3: Gallery Walk to retain information about the nutrients</li> </ol>	Participate in discussion of how we accomplished our objectives for today.
5 minutes	-Collect Participation Tickets	Foreman: Sign, Cut out, staple all participation tickets to turn in to the turn-it-in bin.

<p><b>Ticket Out:</b> What do you think the most important nutrient is?</p>
<p><b>Opportunity to Learn/Summarizing Strategies:</b></p> <ul style="list-style-type: none"> <li>● Participation in interest approach activity</li> <li>● Working through pet food analysis packet</li> <li>● Creating poster with group</li> <li>● Completing foldable during gallery walk</li> </ul>
<p><b>Connect cognitively:</b></p> <p><u>Yesterday:</u> Digestion Quiz, Intro to Nutrition with pet food labels</p> <p><u>Today:</u> Why does what we feed our pets matter? What are the 6 key nutrients?</p> <p><u>Monday:</u> What are the 6 key nutrients? Where is each of those nutrients digested?</p>

**Adaptations & Accommodations:** Students who require extra assistance with mathematics will be provided with calculators as well as frequent checks from Ms. Stauffer. Students who have difficulty with foldables and copying information will be partnered with a peer.

<p style="text-align: center;"><b>Extended Classroom Activity</b></p>	<p>Students who have an interest in nutrition will be tasked with keeping a log of what they eat each day and determining what nutrients they have in their diet.</p>
<p style="text-align: center;"><b>Flex Activity</b></p>	<p>If time is left, students can have a debate regarding why their nutrient is the most important.</p> <p>If time is running out, students can finish the gallery walk at the beginning of class on Monday.</p>