



What Is Malnutrition?

In this lesson, students are introduced to the problem of malnutrition. They first engage in several physical challenges that represent the impediments caused by malnutrition. Then they learn about the actual impact of malnutrition on the human body, while a reading and video convey the impact on real children in the country of Mauritania.

UNICEF Kid Power is formally introduced as way to help kids like those in the video, followed by a very brief overview of UNICEF itself.

About this Lesson

TIME GRADE LEVEL
45 minutes Grades 3-5

VOCABULARY

Fast (n.) Malnutrition
Fortified Micronutrients

Hunger Pang

Symptom

Undernourishment





Objectives

Students will:

- Cite the definitions of *undernourishment* and *hunger*, and explain the meaning of *malnutrition*.
- Engage in a kinesthetic activity to deepen understanding of the effects of nutritional deficiency.
- Analyze a case study of malnutrition and its treatment to determine causes of malnutrition and its impact on children and families.

Materials Needed

- **Hunger Map** (**hyperlink to come**) or other world map or globe
- Computer and Internet access
- Screen and LCD projector or interactive whiteboard
- Chalkboard (if no whiteboard)
- Chart paper and markers
- Paper plates and paper clips, one for each student

Preparation and Setup

- Prepare space for the **Learn and Earn** activity (see Step 1).
- Prepare copies of the handout, Nutrition That Saves, one per student.
- If the homework in Step 10 will be given, prepare copies of the handout, **Excerpt from** *Changing the Face of Hunger*, and decide which tasks below the reading will be assigned.
- Cue the video, **UNICEF Kid Power—Malnutrition Story** (http://bit.ly/UKP-MalnutrnStory) (see Step 6).



Directions



Part 1: Learn and Earn (10 min)

Lead the class in the kinesthetic learning activity, **Nutrition and Malnutrition** (see page 7) to set the stage for understanding the impact of malnutrition on children's bodies and lives.

Part II: Comprehending the Definitions (5-10 min)

- 2 Transition back to regular classroom seating. Ask students to identify new vocabulary that came out of the **Learn and Earn** activity and post on a sheet of chart paper. Make sure to include and define the following terms.
- Malnutrition: Having so few nutrients that the body begins to fail in its basic workings
- **Undernourishment:** Not getting enough food to have the energy needed for the body to perform at a minimum level
- **Hunger:** A weakened condition brought about by prolonged lack of food. Hunger can lead to malnutrition.¹

Review with students, and have them copy the definitions into their notebooks/journals.

On the board, post a T-chart entitled **The Body's Basic Workings**. Label the columns as seen on next page and have students replicate the chart in their notebooks/journals. Tell students that poor nutrition can cause harm to many of our body's systems. List one of the functions below on the chart and discuss what happens when malnutrition causes this function to break down. Have students record responses and then repeat this process for other functions. Review to check for understanding, and answer any questions students may have.





THE BO	DY'S BASIC WORKINGS
FUNCTION	RESULTS OF FUNCTIONING POORLY
Growth	Growth (height and weight) occurs slowly
Movement	Can't easily get around and do work
Immunity	Difficulty resisting and recovering from disease
Thinking	Can't learn well in school
Nurturing Infants	Can't produce enough milk to feed children

Part III: Case Study—Mauritania (5-10 min)

- 4 Ask students why good nutrition may not be part of some children's lives. After discussing, tell students that they will read about the real-life story of mothers with malnourished children in Mauritania. Have a volunteer locate Mauritania and its capital, Nouakchott, on a wall map or globe. Ask students what they already know about this country or region of the world. Were any students in the class born in or near Mauritania, or do they know anyone from this country or region? Have they read anything or heard anything in the news about Mauritania or its region?
- Distribute the handout, **Nutrition That Saves**, and read together as a class. Briefly discuss students' reactions to the story. Then engage the class in close reading questioning, such as the following:
- Explain how malnutrition came to increase so much in Mauritania.
- What would be a sign that the children at the feeding center are getting stronger?
- What is the difference between the foods provided by UNICEF and those consumed by the older children?





Show **UNICEF Kid Power—Malnutrition Story** (http://bit.ly/UKP-MalnutrnStory), a video that complements the reading. As students view, ask them to write descriptive phrases in their notebooks that convey what the environment looks like where the food crisis is occurring, and the appearance and feelings of the children suffering from malnutrition and their mothers. After watching the video, have volunteers share their descriptions and discuss.

Part IV: Introduction to Kid Power and UNICEF (10-15 min)

- Connect Kid Power to the video, emphasizing that the program is a way for students to help kids like Ahmed and Idy. Remind students how the points they earn through Kid Power translate directly into the purchase of therapeutic food to fight malnutrition among kids around the world.
- Ask students for the name of the group mentioned in the video and elsewhere in the Kid Power program that works to provide therapeutic food to children. Ask if anyone has ever heard of UNICEF before. Identify UNICEF as the **United Nations Children's Fund**. For an overview of its work, show the video (http://bit.ly/UKP-UNICEF) or provide the following brief summary:

UNICEF works in more than 190 countries and territories to help get kids what they need to survive and grow into happy and healthy adults. UNICEF helps to supply things like medicines and vaccinations, clean drinking water, health-giving foods, and shelter. It also helps to build schools and provide school supplies. It responds with emergency relief when wars take place or when disasters like earthquakes and floods occur.

- Proview today's learning on malnutrition and its effect on children in Mauritania. Encourage students to get active and earn **Kid Power Points**.
- 10 (Optional) Distribute the handout, Excerpt from Changing the Face of Hunger (in which the author, Tony Hall, describes how he felt during his self-imposed 21-day fast to protest an action of Congress). Assign the tasks below the reading that the students must complete. For the Write a Journal task, the journal entries should use effective technique, descriptive details derived from the Tony Hall excerpt, and clear event sequences (CCSS.ELA-LITERACY.W.4.3 http://www.corestandards.org/ELA-Literacy/W/4/3/). They should place the fast in the context of their own lives and convey how they might experience it.



GAME OF THE WEEK

Kabaddi

Encourage students to continue to **Learn and Earn** by playing games during recess from different countries and cultures. This week's game, **Kabaddi**, originated in the Indian subcontinent thousands of years ago. It is popular today in countries including India, Pakistan, Bangladesh, Sri Lanka, and Nepal. You can watch children in this region playing Kabaddi at **bit.ly/1JXZYQ2**.

To play, students divide into two teams, agree on boundaries (the field should be about half the size of a basketball court), and create a center line in the middle of the playing field with chalk or rope. Each team lines up about 20 feet behind the center line and joins hands or locks elbows. To begin, a "raider" from one team crosses the center line into the other team's territory and tries to tag an opposing player. While doing this, the raider must keep yelling "kabaddi" the entire time she/he is in the opponent's territory without taking a breath. If the raider fails to do this, she/he is out and the other team earns a point. Meanwhile, the opposing team attempts to avoid being tagged while keeping arms locked. Once a tag is made, the player who has been tagged chases the raider. If the raider crosses back over the center line without getting tagged, her/his team scores a point. Otherwise the opposing team scores a point. The game can be played in two 10-minute halves or as time allows.



Girls in India play the Kabaddi game.





LEARN AND EARN ACTIVITY

Nutrition and Malnutrition

1 Establish for the class that there are three ways of looking at the total nutrition picture: having enough energy from food (nourishment and undernourishment); having the necessary amount of vitamins and minerals (nutrient sufficiency and deficiency); and having a proper balance of energy in and energy out (energy balance and imbalance).

Nourishment and Undernourishment

- Tell students that you'd like them to put their energy from food to work by doing some light lifting. Have everyone lift an object like their backpacks to shoulder level by flexing their bicep (e.g., a bicep curl). Tell them to think of this as representing their bodies having enough food.
- Now tell them to try lifting the same object to shoulder level while locking their elbows. Note that the increased strain represents how lack of energy from food can slow down muscle growth.



Increase the fun by making the activities into races, relays, or contests!

3 Nutrient Sufficiency and Deficiency

- Tell students that you'd now like them to put their nutrient-filled bodies to work by testing some of their bodily functions. Have them walk across the room, and ask them what body functions are involved (e.g., *locomotion*, *respiration*, *balance*, *sight*). Tell them to think of this as representing their bodies having the necessary amount of vitamins and minerals.
- Now tell them to pair up, with one of the pair moving across the room and the other holding his or her partner back, e.g., by holding onto his or her waist. Note that this decreased body function represents a deficiency of vitamins and minerals.

4 Energy Balance and Imbalance

- Finally, explain *energy balance* as the "energy in" to our bodies from food being in equilibrium with the "energy out" (completing daily activities). To represent this, have students balance a paper plate on their head and walk across the room.
- Now have students try balancing the plate on their head with a paper clip attached to one side. Note that this represents the problems caused by an energy imbalance, when someone has too much or too little "energy in."





- Ask for volunteers to try performing all three of the above exercises simultaneously with the impediments in place (it should be nearly impossible). Liken that to the impact on people's lives of moderate or severe malnutrition (define here if necessary).
- 6 Note that many children around the world suffer from moderate or severe malnutrition. Discuss how students' lives (their own or others') would be impacted if they were malnourished:
- Would you have enough energy to do all of the daily activities that you need or want to do?
- Which ones would you give up?
- How would the decreased "energy in" affect your school work and relationships with others?
- What would your future be like if your "energy in" was this low for years on end?