

# Nutrition Through the Life Cycle

**Media Type:** Video

**Duration:** 31 min.

**Goal:** To understand the various nutritional requirements needed through each stage of the life cycle.

**Description:** Did you know in each stage of life our bodies need different amounts of the six essential nutrients? With this interactive presentation students will learn the states of life and the importance of nutrition in each stage. They will go step by step through the nutritional needs of infants to childhood, middle childhood to adolescent, young adult to middle adult and old age.

**Objectives:**

1. To learn the six essential nutrients needed during infancy, childhood, adolescence and adult life.
2. To identify specific nutritional requirements and concerns for each stage of the life cycle.



College & Career Readiness Anchor Standards for Writing

Writing Standards	
Text Types & Purposes	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
	<b>9-10.2</b> Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
	<b>11-12.2</b> Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
Research to Build & Present Knowledge	Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
	<b>9-12.7</b> Conduct short as well as more sustained research projects to answer a question or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
	<b>9-10.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
	<b>11-12.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

# Nutrition Through the Life Cycle



College & Career Readiness Anchor Standards for Reading

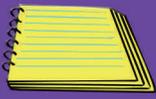
## Reading Standards for Informational Text

Key Ideas & Details	Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	
	9-10.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
	11-12.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
Integration of Knowledge & Ideas	Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.	
	9-10.7	Analyze various accounts of a subject told in different mediums, determining which details are emphasized in each account.
	11-12.7	Integrate and evaluate multiple sources of information presented in different media or formats as well as in words in order to address a question or solve a problem.

Agriculture, Food & Natural Resources Career Cluster (AG)

Cluster	Standard
	Examine and summarize the importance of health, safety and environmental management systems in AFNR businesses.
	Demonstrate stewardship of natural resources in AFNR activities.
	Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.
Food Products & Processing Systems Career Pathway (AG-FD)	Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.
	Explain the scope of the food industry and the historical and current developments of food products and processing.

# Nutrition Through the Life Cycle



## Lesson Plan

**Class 1:** Ask students how nutritional needs vary for individuals throughout their life. Discuss student opinions on the different nutritional needs for men and women. Distribute the *Nutrition Through the Life Cycle Worksheet* and *Vocabulary Handout*. Show the *Nutrition Through the Life Cycle (Part 1)* and *(Part 2)*. Instruct students to complete the *Nutritional Needs and Concerns Activity*.



Video  
10 min.

**Class 2:** Review the material covered in the previous class. Show the *Nutrition Through the Life Cycle (Part 3)*. Remind students to use the *Worksheet* and *Vocabulary Handout*. Have the students complete the *Baby Formula Activity*. Provide students instructions to start the *Toddler Meals Project* which is due on Class 6.



Video  
5 min.

**Class 3:** Review the material covered in the previous class. Show the *Nutrition Through the Life Cycle (Part 4)*. Remind students to use the *Worksheet* and *Vocabulary Handout*. Assign the *Cafeteria Food Project* which is due on Class 7.



Video  
7 min.

**Class 4:** Review the material covered in the previous class. Show the *Nutrition Through the Life Cycle (Part 5)*. Remind students to use the *Worksheet* and *Vocabulary Handout*. Instruct students to complete the *Compare & Contrast Activity*.



Video  
3 min.

**Class 5:** Review the material covered in the previous class. Show the *Nutrition Through the Life Cycle (Part 6)*. Remind students to use the *Worksheet* and *Vocabulary Handout*. Instruct students to start the *Elderly Brochure Project* which is due on Class 7.



Video  
7 min.

**Class 6:** As a review, begin class with the *Nutrition Through the Life Cycle Word Search*. Afterward, administer the

*Nutrition Through the Life Cycle Assessment*. Have students turn in the *Toddler Meal Project*. Allow students the remainder of class to work on their projects.

**Class 7:** Have the students complete the *Cafeteria Food* and *Elderly Brochure Projects*.

**Class 8:** Discuss nutritional requirements for people with specific needs, such as women who are pregnant or adults who are diabetic. Distribute the *Adulthood Scenario Activity* for students to complete by the end of class.

## Lesson Links

### ChooseMyPlate.gov

- <http://www.choosemyplate.gov>

### Nutrition.gov

- <http://www.nutrition.gov>

## Career & Technical Student Organizations

### FCCLA

- Culinary Arts
- Food Innovations

### FFA

- Agricultural Communications
- Food Science and Technology

## Career Connections

Using the *Career Connections Activity*, allow students to explore the various careers associated with this lesson. See the *Activity* for more details. *If student licenses have been purchased:* Students will select the interviews to watch based on your directions. *If only a teacher license is purchased:* Show students all the career interviews and instruct them to only complete the interview form for the required number of interviews.

- iCEV50983, Gary Taubes, Author, Co-founder of Nutrition Science Initiative
- iCEV50910, Eric Hentges, Ph.D., Executive Director, USDA Center for Nutrition Policy & Promotion
- iCEV50538, Kerri Mikulik, Academic Advisor, Nutrition & Food Science, Texas A&M University

# Nutrition Through the Life Cycle



## Lab Activities

### Nutritional Needs and Concerns

#### Directions:

Pass out the *Nutritional Needs and Concerns* worksheet. Have students complete the chart by listing the nutritional needs of the different age groups listed. When the students are finished, discuss what the students wrote, and create a master list based on their findings.

### Compare & Contrast

#### Directions:

Bring in examples of foods found eaten during different stages of life. For instance, you could bring baby food, toddler food, peanut butter, and meat products. Have the students compare and contrast the information provided on the nutrition labels and discuss why certain foods have different nutritional values than others.

### Baby Formula

#### Directions:

Compare the nutritional values and content of at least five different baby formulas. Develop a chart or graphic organizer which illustrates the most nutritional source of each vitamin or mineral. For example, which of the formula contains the most vitamin B? Breast milk may also be included.

### Adulthood Scenario

#### Directions:

Lead a class discussion regarding special nutritional requirements for certain adults. For example, adults who are diabetic or women who are pregnant. Using the Internet, library or any other available resources, students will fill in the



## Projects

### Toddler Meals

#### Directions:

Create a meal calendar for a young toddler. Include a list of foods, vitamins and minerals needed for one week. The calendar should consist of at least three meals and one snack for each day.

### Cafeteria Food

#### Directions:

Create a cafeteria food list for one week. The list must include options for a main cafeteria line, as well as a snack or ala carte line, such as a soup and salad bar.

### Elderly Brochure

#### Directions:

Create a brochure about healthy eating habits and practices for adults over the age of 65. The brochure must include the basic nutritional needs of adults over the age of 65, an example of a day's worth of meals fitting these guidelines, websites listing healthy eating tips, images, etc.