

## NUTRITIONAL FACT, FICTION OR MARKETING SPIN

### Performance Standards 13B/12A/11A.I

Students will apply the processes of scientific inquiry to analyze claims used in nutritional advertising and marketing strategies accordingly:

- *Knowledge*: understand the concepts of nutritional balance, dietary requirements and metabolic processes.
- *Application*: analyze current advertisements to compare actual nutritional requirements and marketing claims.
- *Communication*: report findings about scientific validity and product claims about food product.

### Procedures

1. ***In order to know and apply concepts that describe the interaction between science, technology and society (13B); concepts that explain how living things function, adapt and change (12A); and the concepts, principles and processes of scientific inquiry (11A)***, students should experience sufficient learning opportunities to develop the following:
  - Formulate hypothesis related to the correlation between established nutritional requirements and the marketing claims of common commercial food products.
  - Reference pertinent research associated with the nutrition facts required on product labels, including the metabolic processes associated with each.
  - Design an investigation strategy to compare minimal established nutritional requirements and marketing claims of commercial products.
  - Interpret and represent analysis of claims to produce findings.
  - Present findings for class review and comparisons.
  - Generate further questions or issues for consideration about dietary requirements and marketing claims.

Note to teacher: This activity relates to knowledge associated with Standards 12A and 13B, while addressing the Performance Descriptors for Stage I within Standard 11A. Family and Consumer Sciences (FCS) students will enhance their knowledge of conducting an issue investigation that will be beneficial in their careers and learn the importance of maintaining a healthy diet. This assessment addresses National FCS Standards #9.0 (Food Science, Dietetics and Nutrition) and #14.0 (Nutrition and Wellness). It also addresses the Illinois Foodservice Cluster occupational skill standards #4 (Follow safe food handling and sanitation procedures), #14 (Ensure customer satisfaction) and #33 (Plan menus). Illinois Workplace Skills addressed include Solving Problems and Critical Thinking, Communicating on the Job, and Maintaining a Safe and Healthy Work Environment. Students may use their findings in the following Family, Career and Community Leaders of America (FCCLA) STAR events: Illustrated Talk; Applied Technology; Entrepreneurship, Food Service, Student Body and Power of One. This assessment could be broadly expanded with the use of the 1993 Food Science, Safety and Nutrition resource (see resource listing).
2. Have students review and discuss the assessment task and how the rubric will be used to evaluate their work.
3. Set the stage for this activity by having students recall various commercials or advertisements with claims about foods that meet 100% (more or less) of the minimum daily requirements. In one common example, different numbers of full bowls of competitor cereals would equal the amount of a particular nutrient found in the advertised product. Pose questions about the validity of such claims. Begin questioning how consumers could test the accuracy of such claims or what the defining research is about these minimal requirements (Are the requirements for adults? Males or females? Weight comparisons?). Continue the introduction of this activity by investigating the requirements for nutrition labels on foods. Explain the background for each of the nutrients required on these labels. Assign students to bring in comparable nutrition facts for at least two similar, competing products (two different cereal brands, candy bars, energy bars, etc.) and their associated advertisements from magazines or other sources. Students should prepare charts to compare the label information for each 'competitor' and the advertising claims. These charts should be compared among like products. The advertiser's claims should be compared, especially with questions and opinions about target populations.

4. Evaluate each student's work using the Science Rubric as follows, and add the scores to determine the performance level:
- *Knowledge*: Identification of the concepts associated with nutritional balances was complete and accurate.
  - *Application*: The research on the comparison of advertisements and nutritional requirements of a specific product(s) was complete and correct.
  - *Communication*: The findings and comparisons about scientific validity and advertising claims were insightful and accurate.

#### **Examples of Student Work**

- [Meets](#)
- [Exceeds](#)

#### **Time Requirements**

- One-to-two days for classroom introductory sessions
- One-to-two days for individual research and chart preparation
- One-to-two days for presenting charts and comparative discussions

#### **Resources**

- Guest speakers who can offer nutritional information
- Foods textbooks and nutritional information
- Applied Biology/Chemistry by CORD Communications
- Websites
  - <http://www.nat.uiuc.edu/>
  - <http://www.nal.usda.gov/fnic/etext/000108.html>
  - <http://www.webdietitian.com/nutranalysis/analysis.html>
  - <http://www.foodcount.com/>
  - <http://www.navigator.tufts.edu/>
- Food Science Safety and Nutrition Curriculum resource book – possible activities include:
  - Food Labeling, Unit 1, page 1 (1-1+)
  - Labeling the Ultimate Pizza (1-10+)
  - What's in a Label? (1-14+)
  - Food Economics (1-24+)
  - Food Trends (1-35+)
- Science Rubric

## SCIENCE RUBRIC

Exceeds - must receive no more than one 3 and the rest 4s in the other areas of the rubric.

Meets - may receive no more than one 2 and a combination of 3s and 4s in the other areas of the rubric.

Approaches - may receive no more than one 1 and a combination of 2s, 3s or 4s, in the other areas of the rubric.

Begins - must receive at least a 1 in all 3 areas of the rubric.

	<b>KNOWLEDGE</b>	<b>APPLICATION</b>	<b>COMMUNICATION</b>
	Knows and understands scientific terms, facts, concepts, principles, theories and methods.	Applies scientific knowledge, skills and methods to manipulate, analyze, synthesize, create and evaluate.	Communicates scientific knowledge and applications through writing, speech and visual displays.
<b>4</b>	<ul style="list-style-type: none"> <li>• Descriptions of scientific terms, facts, concepts, principles, theories and methods are complete and correct.</li> </ul>	<ul style="list-style-type: none"> <li>• Applications are thorough, appropriate and accurate.</li> </ul>	<ul style="list-style-type: none"> <li>• Written, oral and/or visual communication is well organized and effective.</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>• Descriptions of scientific terms, facts, concepts, principles, theories and methods are mostly complete and correct.</li> </ul>	<ul style="list-style-type: none"> <li>• Applications are mostly thorough, appropriate and accurate.</li> </ul>	<ul style="list-style-type: none"> <li>• Most of the written, oral and/or visual communication is well organized and effective.</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>• Descriptions of scientific terms, facts, concepts, principles, theories and methods are somewhat complete and correct.</li> </ul>	<ul style="list-style-type: none"> <li>• Applications are somewhat appropriate and accurate.</li> </ul>	<ul style="list-style-type: none"> <li>• Some of the written, oral and/or visual communication is organized and effective.</li> </ul>
<b>1</b>	<ul style="list-style-type: none"> <li>• Descriptions of scientific terms, facts, concepts, principles, theories and methods are minimally present or correct.</li> </ul>	<ul style="list-style-type: none"> <li>• Applications are minimally appropriate and accurate.</li> </ul>	<ul style="list-style-type: none"> <li>• Little of the written, oral and/or visual communication is organized and effective.</li> </ul>
<b>0</b>	<ul style="list-style-type: none"> <li>• All descriptions of scientific terms, facts, concepts, principles, theories and methods are missing and/or incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>• All applications are missing and/or incorrect.</li> </ul>	<ul style="list-style-type: none"> <li>• All of the written, oral or visual communication is missing and/or lacks organization.</li> </ul>
<b>Score</b>			