

Rigorous Curriculum Design Unit Planning Organizer

Subject(s)	Science
Grade/Course	4 th Grade
Unit of Study	Food and Nutrition
Unit Type(s)	<input type="checkbox"/> Topical <input type="checkbox"/> Skills-based <input checked="" type="checkbox"/> Thematic

Priority Essential Standard

4.L.2: Understand food and the benefits of vitamins; minerals and exercise

Clarifying Objectives:

4 .L .2 .1: Classify substances as food or non-food items based on their ability to provide energy and material for survival; growth and repair of the body.

4 .L .2 .2: Explain the role of vitamins; minerals and exercise in maintaining a healthy body.

“UNWRAPPED” Priority Standards

The students will explain how substances are categorized into food or non-food items and explain that the food items provide energy for survival and help your body grow and repair itself

Describe ways to keep your body healthy i.e. vitamins; minerals and exercise.

“Unwrapped” Concepts (students need to know)	“Unwrapped” Skills (students need to be able to do)	Bloom’s Taxonomy Levels
<p>4 .L .2 .1: Students know that living things derive their energy from food . Plants produce their own food; while other organisms must consume plants or other organisms in order to meet their food (energy) needs .</p>	<p>Students will be able to sort out healthy food which contains vitamins and minerals from unhealthy food.</p> <p>Basic –</p> <ul style="list-style-type: none"> • Observe • Compare and Contrast • Classifying • Measuring • Communicating <ul style="list-style-type: none"> -Making Models -Recording Data <p>Intermediate –</p> <ul style="list-style-type: none"> • Inferring • Predicting <p>Advanced –</p> <ul style="list-style-type: none"> • Hypothesizing • Planning Investigations • Interpreting Data 	<p>Remembering Understanding Applying Analyzing Evaluating Creating</p>

Essential Questions	Corresponding Big Ideas
<p>What makes a body healthy? How do/does vitamins/minerals/exercise keep a body healthy? What is the best source of vitamins and minerals for the human body? How is the body affected by the lack of vitamins, minerals and/or exercise?</p>	<p>Food items provide energy and material for survival; growth and repair of the body .</p> <p>Vitamins; minerals and exercise are good for our health</p>

Standardized Assessment Correlations (State, College and Career)	
No standardized science assessment in 4 th grade at this time	
Unit Assessments	
Pre-Assessment	Informal Progress Monitoring Checks
Pre-assessment will be aligned (directly matched to post-assessment but with fewer questions).	<ul style="list-style-type: none"> - Observing cooperative group work; creating plans for meals; analyzing data; presenting completed menus; informal class and individual discussions - Healthy choices and critical thinking
Post-Assessment	
<p>Students use on-line calorie calculator to calculate their individual daily caloric intake. Students then use that number to create a healthy meal plan for a day using the correct number of calories and the correct number and serving sizes of each food group</p> <p style="text-align: center;">http://www.freedieting.com/tools/calorie_calculator.htm</p>	
Scoring Guides and Answer Keys	
<p>17/17 points will be awarded accordingly: 1 point for correctly figuring daily caloric intake; 1 point for each correct serving size for each of 15 food groups throughout the day (5 for breakfast; 5 lunch; 5 dinner); 1 point for correct number of calories for the day</p> <p style="text-align: center;">Food groups include grains; fruits; vegetables; dairy; protein</p> <p style="text-align: center;">http://www.freedieting.com/tools/calorie_calculator.htm</p> <p style="text-align: center;">In order to calculate daily caloric intake students will use the above website</p>	

Engaging Learning Experiences	
Learning Activities Using Text or Program	Authentic Performance Tasks
<p>Referring to selected texts from a variety of sources listed in the Instructional Resources and Materials—Physical and Technology-Based section, identify <i>specific learning activities</i> to use while teaching students the “unwrapped” Priority Standards concepts and skills, supporting standards, interdisciplinary connections, unit vocabulary terms, and extension/enrichment activities.</p>	<p>Suggested Assessments</p> <ul style="list-style-type: none"> Outdoor Field Trips Study Island: Science Harcourt Materials Common Assessments Science Note-booking Illustrations and Labels Create a project that answers an EQ: (4.P.1) Small Group Investigations Teacher observations Work samples Design a new toy: (4.P.2)

Research-Based Effective Teaching Strategies	21st Century Learning Skills
<p>✓ Check all those that apply to the unit:</p> <ul style="list-style-type: none"> x Identifying Similarities and Differences x Summarizing and Note Taking x Reinforcing Effort, Providing Recognition x Homework and Practice <input type="checkbox"/> Nonlinguistic Representations x Cooperative Learning x Setting Objectives, Providing Feedback <input type="checkbox"/> Generating and Testing Hypotheses x Cues, Questions, and Advance Organizers x Interdisciplinary Non-Fiction Writing 	<p>✓ Check all those that apply to the unit:</p> <ul style="list-style-type: none"> x Teamwork and Collaboration x Initiative and Leadership x Curiosity and Imagination x Innovation and Creativity x Critical thinking and Problem Solving x Flexibility and Adaptability x Effective Oral and Written Communication x Accessing and Analyzing Information <input type="checkbox"/> Other

Differentiation Strategies (Additional Supports + Enrichment)	Intervention Strategies (Tiers 1, 2, 3)	Specially Designed Instruction for Special Education Students	Strategies for English Language Learners
			<p>Recommendation for Vocabulary: Illustrate, use visuals, realia, non-linguistic representations, concrete language...</p> <ul style="list-style-type: none"> - Graphic organizers for making definitions comprehensible and memorable... <p>Nutrient – A chemical substance in food that works together with the body’s own chemicals to provide energy; to build, repair and maintain body tissues; and to regulate body processes.</p>

Instructional Resources and Materials	
Physical	Technology-Based
<p>Identify a variety of tangible resources that include selected texts and hands-on manipulatives, maps, charts, diagrams, real, multimedia, etc., to use while teaching students the “unwrapped” Priority Standards concepts and skills, supporting standards, interdisciplinary connections, unit vocabulary terms, and extension/enrichment activities.</p> <p>1- EAT RIGHT! (Nutrition/Art Activity) http://www.eduplace.com/rdg/gen_act/cooking/eatright.html</p> <p>2- Arianna's Nutrition Expedition: Activity 1 - Arianna Bones and the Case of the Missing Food Groups http://school.fueluptoplay60.com/tools/nutrition-education/view.php?id=23971304/ (This assessment is aligned with Standard RL4 4/ RL4 6 /</p> <p>3- My Plate Working in groups, have the students create an ad campaign for milk or a milk product. Have the students research Information for their campaign at http://www.nationaldairycouncil.org, http://www.midwestdairy.com, and www.choosemyplate.gov.</p> <p>Students may want to draw a logo or write lyrics for a jingle or a television commercial script for their ad campaign. Have the students include information about why their dairy product is a nutritious choice.</p> <p>4- Talk it Over! Speaking (Skills Standard SL : SL.4.1, SL.4.1a - S.L.4.2 – S.L.4.4 – S.L.4.5) Ask students to suggest ways to increase the amount of milk products and calcium-rich foods in their diet. (Make a smoothie by blending low-fat yogurt and frozen strawberries. Top a baked potato with low-fat</p>	<p>Locate Internet sites and software that correspond with the “unwrapped” Priority Standards concepts and skills, supporting standards, interdisciplinary connections, unit vocabulary terms, and extension/enrichment activities.</p> <ul style="list-style-type: none"> - Jamie Oliver’s Food Revolution site: http://www.jamieoliver.com/foundation/ You could watch the video on gaggle or you tube that introduces his Food Revolution in WV and it explains the impacts of eating unhealthy and not exercising. “Jamie Oliver Food Revolution Promo” - Let’s move: Anti-Obesity campaign http://www.letsmove.gov/eat-healthy - http://www.ncpublicschools.org/curriculum/science/unit/elementary/ http://www.harcourtschool.com/menus/science/grade4_ca.html http://www.nutritionexplorations.org/kids.php

cheese. Dip fruit in flavored yogurt. Drink orange juice with added calcium. Try calcium-fortified soy milk or yogurt. Drink milk with meals.)

5- Using Food Labels

I do/We do: Demonstrate to read a food label. Provide to them what it is important to have more and less of. Also show them what has the most nutritional value.

Using food labels have students paste down their food label to the sheet provided and complete the activity sheet to go along with it. If time provides have students independently complete the sort activity that can be taken as a quiz grade. If time runs out you may have them complete this during morning work or at the beginning of the next lesson.

6- North Carolina DPI complete Food and Nutrition Unit

<http://www.davidson.k12.nc.us/education/components/docmgr/default.php?sectiondetailid=47926&fileitem=10302&catfilter=2475>

Unit Vocabulary Terms		Enrichment / Extension	Interdisciplinary Connections
<p>“Unwrapped” Priority Standards Concepts</p>	<p>Supporting Standards Concepts and Other Unit- Specific Terms</p>	<p>Writing Extension: W.4.7 W.4.8 W.4.9</p>	<p>Language Standards (L) Books: - True Books® Vitamins and Minerals</p>
<p>balanced diet calories carbohydrates energy exercise fats fiber flexibility fuel minerals nutrients proteins starches sugars survival vitamins</p>		<ol style="list-style-type: none"> 1. Compare the nutritional labels from a can of corn and a bag of frozen corn. How are they alike and how are they different? 2. Make a list of all the foods you eat in 24 hours or 1 day. Write a paragraph that explains if your meals were healthy or unhealthy. 3. Write a business letter to a company found on label explaining why or why not their product is healthy. 4. Some people think that school cafeterias should be required to provide low-fat and/or vegetarian lunch options to accommodate the eating habits of all students. Do you agree or disagree? Explain your position and use specific reasons and examples as support. 	<p>- Food Safety: All New, All True Christine Taylor-Butler (Author)</p> <p>- The Food Pyramid: All New, All True Christine Taylor-Butler</p> <p>http://shop.scholastic.com</p> <p>Talk it Over! Speaking (Skills Standard SL : SL.4.1 SL.4.1a - S.L.4.2 – S.L.4.4 – S.L.4.5</p> <p>Writing Extension: W.4.7 W.4.8 W.4.9</p> <p>Mathematics Standards M.4.M.D.1 M.4.MD 4</p>