

Unit 3—Food and Nutrition (FOSS® Food and Nutrition)

How does nutrition and exercise affect our health?

Major Understandings: *quoted from NY State Performance Indicators*

(Note: Correlation is provided at the level of FOSS “Investigation & Part.” All “Steps” of an investigation must be completed to meet the standard.)

LE 4.2 Describe evidence of growth, repair and maintenance, such as nails, hair and bone, and the healing of cuts and bruises.

4.2b Food supplies the energy and materials necessary for growth and repair.

LE 5.2 Describe some survival behaviors of common living specimens.

5.2g The health, growth and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight.

LE 5.3 Describe the factors that promote good health and growth in humans.

5.3a Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.

5.3b Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise.

General Skills: *quoted from the NYS Core Curriculum (Note: Correlation is provided at the “Investigation & Part” level.)*

Elementary Level

ix. Order and sequence objects and/or events.

Intermediate Level

1. Follow safety procedures in the classroom and laboratory.
2. Safely and accurately use the following measurement tools: metric ruler (metric “Centimeter Grid” sheet), balance, stopwatch, graduated cylinder (graduated syringe, volume tube), thermometer.
3. Use appropriate units for measured or calculated values.
5. Classify objects according to an established scheme and a student-generated scheme.
8. Identify cause-and-effect relationships.

NOTE: Review *STUDENT FOOD ALLERGY* information and the list of foods used in the FOSS® Food and Nutrition module.

See the Materials Folio pp. 1-5 and Investigation 1: The Fat Test, Part 1, Step 5 of “Getting Ready.”

Grade 5

WEEK 1	<p>Lesson 1 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Brown paper can be used to indicate fat content in foods. • Fat is a nutrient found in many foods. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). • Yeast can be used to indicate sugar in foods. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Some foods contain more sugar than others do. • The sour taste of foods is due to acid. • Baking soda and acid react chemically to form new products, one of which is carbon dioxide. • Baking soda can be used to indicate acid. • Indophenol can be used to indicate Vitamin C, ascorbic acid. • Calories are a measure of the amount of energy in foods. • Labels on food packages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. • Fats have more than twice as many nutritional calories as carbohydrates and proteins. • Gathering and organizing data. • Interpreting data and building explanations. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 3, 5, 8 	
	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Read the Introduction and Overview sections of your FOSS Food and Nutrition Teacher Guide. – Note: Administration of the Survey should be a few days BEFORE the start of the unit. – Teacher Guide, Benchmark Assessment Folio, pp. 1-21, 52. – Download optional tool: Benchmark and I-Check Assessment coding sheets at www.fossweb.com/NYC. – Kit preparation: see Teacher Guide, Materials, pp. 1-7 and Teacher Preparation Video or DVD (or view at www.fossweb.com/NYC). – Note: see Teacher Guide, Materials, p 3 for Materials Supplied by the Teacher and Materials from the Food and Nutrition Tool Kit. – Collect empty food packages for Investigation 4: Free Lunch, Part 1: Free Lunch, Step 3, p. 9. – Note: see Teacher Guide, Materials, pp. 4. Follow the directions for Preparing a New Kit. – Refer to Teacher Guide, Materials, pp. 5-7 for additional prep information. – Consult the Materials section of the Teacher Guide p. 3 and p. 5 for the foods you will need for Investigation 1, The Fat Test. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Benchmark Assessment Packet, Survey/Post-test pages 1-5 – Letter to Parents, Teacher Sheet No. 1 	<p>Homework/Extra Practice</p>

Grade 5

	<p>Lesson 2 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Brown paper can be used to indicate fat content in foods. • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 3, 8 	
WEEK 1 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: The Fat Test, pp. 1-7. – Teacher Guide Inv. 1: The Fat Test, Part 1: Setting Up the Fat Test, Materials and Getting Ready, pp. 8-11. – Teacher Guide Science Stories folio, pp 1-3. – Teacher Guide Assessment folio, pp. 1-5 and pp. 27-28. – Note: The Benchmark Assessment replaces the <i>Summative Assessment</i>. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Food and Nutrition. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>The Fat Test</i> Part 1: <i>Setting Up the Fat Test</i>, # 1-13 – Teacher Guide pages 12-14 – Investigation Duplication Master: Teacher Sheet No. 1, 3 – Investigation Duplication Master: Student Sheet No. 2 – Assessment - Assessment Chart No. 1: Assessment for Investigation 1, Part 1 – Teacher Observation – informal notes – <i>Prepare to read FOSS Science Stories: Face the Fats, pp. 1-5. The estimated time for this reading is 30 minutes.</i> <p>Note: Student experience with weighing small (1 gram) sample sizes will influence the amount of time needed to prepare the 4 samples for each group. Using TWO FOSS Balances for every group will expedite the sample preparation.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 1 (continued)	<p>Lesson 3 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Brown paper can be used to indicate fat content in foods. • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 3, 8 	
	<p>Advanced Planning/ Notes to Teacher</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: The Fat Test, pp. 1-7. – Teacher Guide Inv. 1: The Fat Test, Part 1: Setting Up the Fat Test, Materials and Getting Ready, pp. 8-11. – Teacher Guide Science Stories folio, pp. 1-3. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: The Fat Test Part 1: Setting Up the Fat Test, # 14- 16 – Teacher Guide pages 12-14 – Investigation Duplication Master: Teacher Sheet No. 1, 3 – Investigation Duplication Master: Student Sheet No. 2 – Assessment - Assessment Chart No. 1: Assessment for Investigation 1, Part 1 – Teacher Observation – informal notes – <i>FOSS Science Stories: Face the Fats, pages 1-5. The estimated time for this reading is 30 minutes.</i> 		<p>Homework/Extra Practice</p> <p>Consult the Interdisciplinary Extensions on p. 21. “Read Food Labels” and “Research Fats in Processed Foods” meet the objectives of the Food and Nutrition Unit.</p>

Grade 5

WEEK 1 (continued)	<p>Lesson 4 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: The Fat Test, pp. 1-7. – Teacher Guide Inv. 1: The Fat Test, Part 2: Reading the Fat Test, Materials and Getting Ready, pp. 16-17. – Teacher Guide Science Stories folio, pp. 4-5. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: The Fat Test Part 2: Reading the Fat Test, # 1-9 – Teacher Guide pp. 18-20 – Investigation Duplication Master: Student Sheet No. 5, 6 – Assessment - Assessment Chart No. 1 for Investigation 1, Part 2 – Response Sheet – The Fat Test Assessment folio, p 6, Response Sheet Scoring Guide – <i>Prepare to read FOSS Science Stories: The Digestive System, pages 6-9.</i> <i>The estimated time for this reading is 30 minutes.</i> 		<p>Homework/Extra Practice</p>

Grade 5

WEEK 2	<p>Lesson 5 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • Expanded Process Skills: S1.2b • General Skills: 1, 2, 3, 4, 7 • Physical Setting Skills: 7
	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: The Fat Test, pp. 1-7. – Teacher Guide Inv. 1: The Fat Test, Part 2: Reading the Fat Test, Materials and Getting Ready, pp. 16-17. – Teacher Guide Science Stories folio, pp 4-5. – Note: The Project Folder, prepared in Getting Ready, Part 1, Step 12, is introduced to students in Step 13 of this lesson. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>The Fat Test</i> Part 2: <i>Reading the Fat Test</i>, # 10-13 – Teacher Guide pages 18-20 – Investigation Duplication Master: Student Sheet No. 5, 6 – Assessment - Assessment Chart No. 1 for Investigation 1, Part 2 – Response Sheet – The Fat Test Assessment folio, page 6, Response Sheet Scoring Guide – <i>Prepare to read FOSS Science Stories: The Digestive System, pages 6-9.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Home/School Connection, Student Sheet No. 26</p>

Grade 5

	<p>Lesson 6 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 2 (continued)	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: The Fat Test, pp. 1-7. – Teacher Guide Inv. 1: The Fat Test, Part 2: Reading the Fat Test, Materials and Getting Ready, pp. 16-17. – Teacher Guide Science Stories folio, pp. 4-5. – Note: The Project Folder, prepared in Getting Ready, Part 1, Step 12, is introduced to students in Step 13 of this lesson. – Plan for 8 liters HOT (40 – 50°C) Water for Investigation 2, Part 1. See p. 9, Getting Ready, Step 6. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>The Fat Test</i> Part 2: <i>Reading the Fat Test</i>, # 14 – Teacher Guide pages 18-20 – Investigation Duplication Master: Student Sheet No. 5, 6 – Assessment - Assessment Chart No. 1 for Investigation 1, Part 2 – Response Sheet – The Fat Test Assessment folio, page 6, Response Sheet Scoring Guide – <i>Read FOSS Science Stories: The Digestive System, pages 6-9. The estimated time for this reading is 30 minutes.</i> 	<p>Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 22</p>

Grade 5

WEEK 2 (continued)	<p>Lesson 7 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Brown paper can be used to indicate fat content in foods. • Fat is a nutrient found in many foods. • Relative amounts of fat can be determined by controlling variables in the fat test. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a, 5.3b • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 22-29, 52. – Plan Assessment Review time with class after teacher assessment coding. – Consult the Materials section of the Teacher Guide p. 3 and p. 5 for the foods you will need for Investigation 2, The Sugar Test. 	<p style="text-align: center;">Investigation/Activity</p> <p>Benchmark Assessment Packet, Investigation 1 I-Check, pages 1-4</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 2 (continued)	<p>Lesson 8 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • Yeast needs sugar to become active. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: The Sugar Test, pp. 1-7 – Teacher Guide Inv. 1: The Sugar Test, Part 1: Yeast as an Indicator, Materials and Getting Ready pp. 8-10. – Teacher Guide Science Stories folio, pp 6-7 – Vignette: <i>Get it in Writing</i>, p. 17 – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Food and Nutrition. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>The Sugar Test</i> Part 1: <i>Yeast as an Indicator</i>, # 1-8 – Teacher Guide pages 11-16 – Investigation Duplication Master: Student Sheet No. 7 – Assessment - Assessment Chart No. 2 for Investigation 2, Part 1 – Teacher Observation – <i>Prepare to read FOSS Science Stories: A Sweet Story, pages 10-13.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Consult the Interdisciplinary Extensions on p. 26. Consider “Find Sugars in Products”, “Research Sugar Sources” and “Research Breakfast Around the World.”</p>

Grade 5

	<p>Lesson 9 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • Yeast needs sugar to become active. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 3	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. – Teacher Guide Inv. 1: The Sugar Test, Part 1: Yeast as an Indicator, Materials and Getting Ready, pp. 8-10. – Teacher Guide Science Stories folio, pp 6-7. – Vignette: <i>Get it in Writing</i>, p. 17. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>The Sugar Test</i> Part 1: <i>Yeast as an Indicator</i>, # 9-17 – Teacher Guide pages 11-16 – Investigation Duplication Master: Student Sheet No. 7 – Assessment - Assessment Chart No. 2 for Investigation 2, Part 1 – Teacher Observation – <i>Prepare to read FOSS Science Stories: A Sweet Story, pages 10-13.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 3 (continued)	<p>Lesson 10 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • Yeast needs sugar to become active. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. – Teacher Guide Inv. 1: The Sugar Test, Part 1: Yeast as an Indicator, Materials and Getting Ready, pp. 8-10. – Teacher Guide Science Stories folio, pp 6-7. – Vignette: <i>Get it in Writing</i>, p. 17. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>The Sugar Test</i> Part 1: <i>Yeast as an Indicator</i>, # 18-20 – Teacher Guide pages 11-16 – Investigation Duplication Master: Student Sheet No. 7 – Assessment - Assessment Chart No. 2 for Investigation 2, Part 1 – Teacher Observation – <i>Read FOSS Science Stories: A Sweet Story, pages 10-13.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p>Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 23</p>

Grade 5

WEEK 3 (continued)	Lesson 11 (45 min) Objective(s): <ul style="list-style-type: none"> Some foods contain more sugar than others do. The more carbon dioxide produced by yeast in a food sample, the more sugar in the sample. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> LE 4.2b, 5.3a General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. Teacher Guide Inv. 1: The Sugar Test, Part 2: Testing Cereals, Materials and Getting Ready, pp. 18-19. Teacher Guide Science Stories folio, pp. 8-9. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 2: <i>The Sugar Test</i> Part 2: <i>Testing Cereals</i>, # 1-7 Teacher Guide pages 20 - 21 Investigation Duplication Master: Student Sheet No. 8, 9 Assessment - Assessment Chart for Investigation 2, Part 2 – Response Sheet – The Sugar Test Assessment folio, p 7, Response Sheet Scoring Guide <i>Prepare to read FOSS Science Stories: Sugar Smarts, pages 14-15. The estimated time for this reading is 30 minutes.</i> 	Homework/Extra Practice

Grade 5

WEEK 3 (continued)	Lesson 12 (45 min) Objective(s): <ul style="list-style-type: none"> Some foods contain more sugar than others do. The more carbon dioxide produced by yeast in a food sample, the more sugar in the sample. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> LE 4.2b, 5.3a General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. Teacher Guide Inv. 1: The Sugar Test, Part 2: Testing Cereals, Materials and Getting Ready, pp. 18-19. Teacher Guide Science Stories folio, pp. 8-9. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 2: <i>The Sugar Test</i> Part 2: <i>Testing Cereals</i>, # 8-11 Teacher Guide pages 20 - 21 Investigation Duplication Master: Student Sheet No. 8, 9 Assessment - Assessment Chart for Investigation 2, Part 2 – Response Sheet – The Sugar Test Assessment folio, p 7, Response Sheet Scoring Guide <i>Prepare to read FOSS Science Stories: Sugar Smarts, pages 14-15. The estimated time for this reading is 30 minutes.</i> 	Homework/Extra Practice

Grade 5

	<p>Lesson 13 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Some foods contain more sugar than others do. The more carbon dioxide produced by yeast in a food sample, the more sugar in the sample. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> LE 4.2b, 5.3a General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 4	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 3: <i>Go With the Flow</i>, pp. 1-7. Teacher Guide Inv. 3: <i>Go With the Flow</i>, Part 1: <i>Slope</i>, Materials and Getting Ready pp. 8-10. Teacher Guide Science Stories folio, pp 6-7. Teacher Guide Assessment folio, p. 9. www.fossweb.com/NYC – Do you have a question for a scientist? Check the database or submit a new one. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 3: <i>Go With the Flow</i> Part 1: <i>Slope</i>, # 15-17 Teacher Guide page 14 Investigation Duplication Master: Student Sheet No. 10 Assessment - Assessment Chart No. 2: Assessment for Investigation 3, Part 1 – Student Sheet – Stream Table Map <p>READ FOSS Science Stories: Rivers and Controlling Flow, pages 15-21. <i>The estimated time for the reading is 30 minutes.</i></p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Home/School Connection, Student Sheet No. 27</p>

Grade 5

WEEK 4 (continued)	<p>Lesson 14 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • Yeast needs sugar to become active. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. • Some foods contain more sugar than others do. • The more carbon dioxide produced by yeast in a food sample, the more sugar in the sample. • Apply the content and processes developed in Parts 1 and 2. (Performance Assessment) 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a, 5.3b • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. – Teacher Guide Inv. 1: The Sugar Test, Part 3: Testing Other Foods, Materials and Getting Ready, pp. 22-23. – Teacher Guide Science Stories folio, p. 10. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>The Sugar Test</i> Part 3: <i>Testing Other Foods</i>, # 1-4 – Teacher Guide pages 24-25 – Investigation Duplication Master: Student Sheet No. 8 – Assessment - Assessment Chart for Investigation 2, Part 3 – Teacher Observation – sugar test procedure Student Sheet – Sugar Test – interprets data Assessment folio, page 8, Student Sheet Scoring Guide – <i>Prepare to read FOSS Science Stories: Living With Diabetes, pages 16-19.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 4 (continued)	<p>Lesson 15 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • Yeast needs sugar to become active. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. • Some foods contain more sugar than others do. • The more carbon dioxide produced by yeast in a food sample, the more sugar in the sample. • Apply the content and processes developed in Parts 1 and 2. (Performance Assessment) 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a, 5.3b • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: The Sugar Test, pp. 1-7. – Teacher Guide Inv. 1: The Sugar Test, Part 3: Testing Other Foods, Materials and Getting Ready, pp. 22-23. – Teacher Guide Science Stories folio, p. 10. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>The Sugar Test</i> Part 3: <i>Testing Other Foods</i>, # 5-7 – Teacher Guide pages 24-25 – Investigation Duplication Master: Student Sheet No. 8 – Assessment - Assessment Chart for Investigation 2, Part 3 – Teacher Observation – sugar test procedure Student Sheet – Sugar Test – interprets data Assessment folio, page 8, Response Sheet Scoring Guide – Read <i>FOSS Science Stories: Living With Diabetes</i>, pages 16-19. <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 4 (continued)	Lesson 16 (45 min) Objective(s): <ul style="list-style-type: none"> • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Yeast can be used to indicate sugar in foods. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. • Some foods contain more sugar than others do. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 30-37, 52. – Plan Assessment Review time with class after teacher assessment coding. – Consult the Materials section of the Teacher Guide p. 3 and p.5 for the foods you will need for Investigation 3. The Acid Test. 	Investigation/Activity Benchmark Assessment Packet, Investigation 2 I-Check, pages 1-4	Homework/Extra Practice

Grade 5

	<p>Lesson 17 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Baking soda and acid react chemically to form new products, one of which is carbon dioxide. • Baking soda can be used to indicate acid. • When baking soda is present in excess, the volume of carbon dioxide produced when soda reacts with an acid is proportional to the concentration of the acid. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 5	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: The Acid Test, pp. 1-7. – Teacher Guide Inv. 3: The Acid Test, Part 1: Baking Soda as an Indicator, Materials and Getting Ready, pp. 8-10. – Teacher Guide Science Stories folio, p. 11. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Food and Nutrition. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>The Acid Test</i> Part 1: <i>Baking Soda as an Indicator</i>, # 1-10 – Teacher Guide pages 11-15 – Investigation Duplication Master: Student Sheet No. 10 – Assessment - Assessment Chart for Investigation 3, Part 1 – Teacher Observation – informal notes – <i>Prepare to read FOSS Science Stories: Your Terrific Tongue, page 20.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 5 (continued)	<p>Lesson 18 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Baking soda and acid react chemically to form new products, one of which is carbon dioxide. Baking soda can be used to indicate acid. When baking soda is present in excess, the volume of carbon dioxide produced when soda reacts with an acid is proportional to the concentration of the acid. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 3: The Acid Test, pp. 1-7. Teacher Guide Inv. 3: The Acid Test, Part 1: Baking Soda as an Indicator, Materials and Getting Ready, pp. 8-10. Teacher Guide Science Stories folio, p. 11. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 3: <i>The Acid Test</i> Part 1: <i>Baking Soda as an Indicator</i>, # 11-18 Teacher Guide pages 11-15 Investigation Duplication Master: Student Sheet No. 10 Assessment - Assessment Chart for Investigation 3, Part 1 – Teacher Observation – informal notes <i>Prepare to read FOSS Science Stories: Your Terrific Tongue, page 20. The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 5 (continued)	<p>Lesson 19 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Baking soda and acid react chemically to form new products, one of which is carbon dioxide. Baking soda can be used to indicate acid. When baking soda is present in excess, the volume of carbon dioxide produced when soda reacts with an acid is proportional to the concentration of the acid. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 3: The Acid Test, pp. 1-7. Teacher Guide Inv. 3: The Acid Test, Part 1: Baking Soda as an Indicator, Materials and Getting Ready, pp. 8-10. Teacher Guide Science Stories folio, p. 11. Fresh citrus fruit is required for Part 2 (Lesson 20). 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 3: <i>The Acid Test</i> Part 1: <i>Baking Soda as an Indicator</i>, # 19-21 Teacher Guide pages 11-15 Investigation Duplication Master: Student Sheet No. 10 Assessment - Assessment Chart for Investigation 3, Part 1 – Teacher Observation – informal notes Read <i>FOSS Science Stories: Your Terrific Tongue</i>, page 20. <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 5 (continued)	Lesson 20 (45 min) Objective(s): <ul style="list-style-type: none"> Baking soda can be used to measure the relative concentration of acid in citrus fruits. The sour taste of foods is due to acids. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> LE 4.2b, 5.2g, 5.3a, 5.3b General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 3: The Acid Test, pp. 1-7. Teacher Guide Inv. 3: The Acid Test, Part 2: Acid in Fruit, Materials and Getting Ready, pp. 16-18. Teacher Guide Science Stories folio, pp. 12-13. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 3: <i>The Acid Test</i> Part 2: <i>Acid in Fruit</i>, # 1-6, (7) Teacher Guide pages 19-20 Investigation Duplication Master: Student Sheet No. 10 (from Part 1), 11 Assessment - Assessment Chart for Investigation 3, Part 2 – Response Sheet – The Acid Test Assessment folio, page 9, Response Sheet Scoring Guide <i>Prepare to read FOSS Science Stories: Vitamins, pages 21-23. The estimated time for this reading is 30 minutes.</i> 	Homework/Extra Practice <p>Consider using the Response Sheet as homework.</p>

Grade 5

	<p>Lesson 21 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Baking soda can be used to measure the relative concentration of acid in citrus fruits. • The sour taste of foods is due to acids. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.2g, 5.3a, 5.3b • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 6	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: The Acid Test, pp. 1-7. – Teacher Guide Inv. 3: The Acid Test, Part 2: Acid in Fruit, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp. 12-13. – Review the preparation of solutions for Part 3: The Vitamin C Search. See getting ready Steps 3, 4, 5. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>The Acid Test</i> Part 2: <i>Acid in Fruit</i>, # 7-10 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 10 (from Part 1), 11 – Assessment - Assessment Chart for Investigation 3, Part 2 – Response Sheet – The Acid Test Assessment folio, page 9, Response Sheet Scoring Guide – <i>Read FOSS Science Stories: Vitamins, pages 21-23. The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Consider the Language Extensions: Report on Vitamins or Report on Fruits from Around the World.</p>

Grade 5

WEEK 6 (continued)	<p>Lesson 22 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Indophenol can be used to indicate Vitamin C, ascorbic acid. • Vitamins are nutrients and help the body function properly. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: The Acid Test, pp. 1-7. – Teacher Guide Inv. 3: The Acid Test, Part 3: Vitamin C Search, Materials and Getting Ready, pp. 21-22. – Teacher Guide Science Stories folio, pp. 14-15. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>The Acid Test</i> Part 3: <i>Vitamin C Search</i>, # 1-9 – Teacher Guide pages 23-25 – Investigation Duplication Master: Student Sheet No. 10 (from Part 1), 11 – Assessment - Assessment Chart for Investigation 3, Part 3 – Teacher Observation – Vitamin C test procedure Assessment folio, page 10, Teacher Observation Scoring Guide – <i>Prepare to read FOSS Science Stories: The Scourge of Seafarers, pages 24-25; Linus Pauling, page 26.</i> <i>The estimated time for these reading is 30 minutes.</i> 		<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 6 (continued)	<p>Lesson 23 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Indophenol can be used to indicate Vitamin C, ascorbic acid. • Vitamins are nutrients and help the body function properly. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 5.2g, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: The Acid Test, pp. 1-7. – Teacher Guide Inv. 3: The Acid Test, Part 3: Vitamin C Search, Materials and Getting Ready pp. 21-22. – Teacher Guide Science Stories folio, pp. 14-15. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>The Acid Test</i> Part 3: <i>Vitamin C Search</i>, # 10-12 – Teacher Guide pages 23-25 – Investigation Duplication Master: Student Sheet No. 10 (from Part 1), 11 – Assessment - Assessment Chart for Investigation 3, Part 3 – Teacher Observation – Vitamin C test procedure Assessment folio, page 10, Teacher Observation Scoring Guide – <i>Read FOSS Science Stories: The Scourge of Seafarers, pages 24-25; Linus Pauling, page 26.</i> <i>The estimated time for these reading is 30 minutes.</i> 	<p>Homework/Extra Practice</p> <p>Home/School Connection, Student Sheet No. 28</p>

Grade 5

WEEK 6 (continued)	Lesson 24 (45 min) Objective(s): <ul style="list-style-type: none"> The sour taste of foods is due to acids. Baking soda and acid react chemically to form new products, one of which is carbon dioxide. Baking soda can be used to indicate acid. Indophenol can be used to indicate Vitamin C, ascorbic acid. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> LE 4.2b General Skills: Elementary Level: ix Intermediate Level: 3, 5, 8 	
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide, Benchmark Assessment Folio, pp. 38-45, 52. Plan Assessment Review time with class after teacher assessment coding. 	Investigation/Activity Benchmark Assessment Packet, Investigation 3 I-Check, pages 1-4		Homework/Extra Practice Math Extension, Student Sheet No. 24

Grade 5

	<p>Lesson 25 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Calories are a measure of the amount of energy in foods. • Labels on food packages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. • Fats have more than twice as many nutritional calories as carbohydrates and proteins. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 3, 5 	
WEEK 7	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 1: Free Lunch, Materials and Getting Ready, pp. 8-9. – Teacher Guide Science Stories folio, pp. 16-17. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Food and Nutrition. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 1: <i>Free Lunch</i>, # 1-7 – Teacher Guide pages 10-15 – Investigation Duplication Master: Student Sheet No. 13, 14, 15, 16, 17, 18 – Assessment - Assessment Chart for Investigation 4, Part 1 – Response Sheet – Free Lunch Assessment folio, page 11, Response Sheet Scoring Guide – <i>Prepare to read FOSS Science Stories: Food Labels, pages 27-29 and Healthy Eating, International Style, pages 30-33. The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 7 (continued)	<p>Lesson 26 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Calories are a measure of the amount of energy in foods. Labels on food pack ages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. Fats have more than twice as many nutritional calories as carbohydrates and proteins. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> LE 4.2b, 5.3a General Skills: Elementary Level: ix Intermediate Level: 1, 3, 5 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 4: Free Lunch, pp. 1-7 Teacher Guide Inv. 4: Free Lunch, Part 1: Free Lunch, Materials and Getting Ready pp. 8-9. Teacher Guide Science Stories folio, pp. 16-17 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 4: <i>Free Lunch</i> Part 1: <i>Free Lunch</i>, # 8-16 Teacher Guide pages 10-15 Investigation Duplication Master: Student Sheet No. 13, 14, 15, 16, 17, 18 Assessment - Assessment Chart for Investigation 4, Part 1 – Response Sheet – Free Lunch Assessment folio, page 11, Response Sheet Scoring Guide <i>Prepare to read FOSS Science Stories: Food Labels, pages 27-29 and Healthy Eating, International Style, pages 30-33. The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 25</p>

Grade 5

WEEK 7 (continued)	<p>Lesson 27 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Calories are a measure of the amount of energy in foods. • Labels on food packages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. • Fats have more than twice as many nutritional calories as carbohydrates and proteins. 	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 3, 5 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 1: Free Lunch, Materials and Getting Ready, pp. 8-9. – Teacher Guide Science Stories folio, pp. 16-17. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 1: <i>Free Lunch</i>, # 17-19 – Teacher Guide pages 10-15 – Investigation Duplication Master: Student Sheet No. 13, 14, 15, 16, 17, 18 – Assessment - Assessment Chart for Investigation 4, Part 1 – Response Sheet – Free Lunch Assessment folio, page 11, Response Sheet Scoring Guide – <i>Prepare to read FOSS Science Stories: Food Labels, pages 27-29 and Healthy Eating, International Style, pages 30-33.</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 7 (continued)	<p>Lesson 28 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> • Calories are a measure of the amount of energy in foods. • Labels on food packages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. • Fats have more than twice as many nutritional calories as carbohydrates and proteins. 		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 1, 3, 5
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 1: Free Lunch, Materials and Getting Ready, pp. 8-9. – Teacher Guide Science Stories folio, pp. 16-17. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 1: <i>Free Lunch</i>, # 20-22 – Teacher Guide pages 10-15 – Investigation Duplication Master: Student Sheet No. 13, 14, 15, 16, 17, 18 – Assessment - Assessment Chart for Investigation 4, Part 1 – Response Sheet – Free Lunch Assessment folio, page 11, Response Sheet Scoring Guide – Read <i>FOSS Science Stories: Food Labels, pages 27-29 and Healthy Eating, International Style, pages 30-33.</i> <i>The estimated time for this reading is 50 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Consider using one of the Science Stories for this part as homework.</p>

Grade 5

NOTE	<p>Prepare for Investigation 4, Part 4: Choosing Your Own Investigation. THIS PART IS <u>NOT OPTIONAL</u> for Grade 5, Unit 3. (Teachers may be aware of similar sections of other FOSS® units in grades 3, 4 & 6 that may have been noted as “Optional” Lessons.)</p> <p>Students develop investigation plans, do systematic work to complete investigations and support conclusions with evidence.</p> <p>Examine the Project Ideas (Student Sheet No. 19) and entries in the Project Folder prepared in Investigation 1, Part 1, Step 12 for ideas for individual, group or class projects. Interdisciplinary and Science Extensions are appropriate research projects</p> <p>In FOSS® Food and Nutrition SIX LESSONS (Lesson 29, 30, 31, 32, 33, 34) include work to complete Investigation 4: Free Lunch, Part 2: Choosing Your Own Investigation.</p>		
	<p>Lesson 29 (45 min) Objective(s): Apply content used in previous parts.</p>	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 8	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp. 18-23. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i>, # 1-4 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Prepare to read FOSS Science Stories:</i> <i>Finding a Cause for Rickets and Healthy Kids</i>, pages 34-40. The estimated time for these readings is 50 minutes. <i>Living Cells</i>, pages 41-43. The estimated time for this reading is 30 minutes. <i>Blood: The Fluid that Connects</i>, pages 44-50. The estimated time for this reading is 45 minutes. 	<p style="text-align: center;">Homework/ Extra Practice</p>

Grade 5

	<p>Lesson 30 (45 min)</p> <p>Objective(s): Apply content used in previous parts.</p>	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 8 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp. 18-23. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i>, # 1-4 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Prepare to read FOSS Science Stories:</i> <i>Finding a Cause for Rickets and Healthy Kids</i>, pages 34-40. <i>The estimated time for these readings is 50 minutes.</i> <i>Living Cells</i>, pages 41-43. <i>The estimated time for this reading is 30 minutes.</i> <i>Blood: The Fluid that Connects</i>, pages 44-50. <i>The estimated time for this reading is 45 minutes.</i> 	<p>Homework/Extra Practice</p> <p>Send home Student Sheet No. 23 – Presentation Guidelines</p>

Grade 5

WEEK 8 (continued)	<p>Lesson 31 (45 min) Objective(s): Apply content used in previous parts.</p>		<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8 	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready pp. 16-18. – Teacher Guide Science Stories folio, pp. 18-23. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i>, # 1-4 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Begin reading FOSS Science Stories: Finding a Cause for Rickets and Healthy Kids, pages 34-40</i> The estimated time for these readings is 50 minutes. 		<p>Homework/Extra Practice</p> <p>Consider assigning Science Stories as homework.</p>

Grade 5

	<p>Lesson 32 (45 min)</p> <p>Objective(s): Apply content used in previous parts.</p>	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 8 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 46-51, 52. – Plan Assessment Review time with class after teacher assessment coding. – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp. 18-23. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Benchmark Assessment Packet, Investigation 4 I-Check, pages 1-3 – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i>, # 5 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Read FOSS Science Stories: Living Cells, pages 41-43</i> <i>The estimated time for this reading is 30 minutes.</i> 	<p>Homework/ Extra Practice</p>

Grade 5

	<p>Lesson 33 (45 min)</p> <p>Objective(s): Apply content used in previous parts.</p>	<p>Alignment with NYS Core Curriculum:</p> <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8 	
WEEK 9	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp 18-23 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i>, # 5 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Read FOSS Science Stories:</i> <i>Blood: The Fluid that Connects</i>, pages 44-50 <i>The estimated time for this reading is 45 minutes.</i> 	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 5

WEEK 9 (continued)	Lesson 34 Optional (45 min) Objective(s): Apply content used in previous parts.		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> • LE 4.2b, 5.3a, 5.3b • General Skills: Elementary Level: Intermediate Level: 1, 2, 3, 5, 8
	Advanced Planning/Notes to Teachers – Teacher Guide Inv. 4: Free Lunch, pp. 1-7. – Teacher Guide Inv. 4: Free Lunch, Part 2: Choosing Your Own Investigation, Materials and Getting Ready, pp. 16-18. – Teacher Guide Science Stories folio, pp. 18-23.	Investigation/Activity – Investigation 4: <i>Free Lunch</i> Part 4: <i>Choosing Your Own Investigation</i> , # 6-7 – Teacher Guide pages 19-20 – Investigation Duplication Master: Student Sheet No. 19-21 – Assessment - Assessment Chart for Investigation 4, Part 2 – Student Sheet and Teacher Observation Assessment folio, pages 12-13, Student Sheet & Teacher Observation – Independent Investigation and Presentation Scoring Guide – <i>Complete FOSS Science Stories:</i> <i>Blood: The Fluid that Connects</i> , pages 44-50 <i>The estimated time for this reading is 45 minutes.</i>	Homework/Extra Practice

Grade 5

WEEK 9 (continued)	Lesson 35 Required (45 min) Objective(s): <ul style="list-style-type: none"> • Brown paper can be used to indicate fat content in foods. • Fat is a nutrient found in many foods. • Foods can contain different kinds of fats, saturated (solid at room temperature) or unsaturated (liquid at room temperature). • Yeast can be used to indicate sugar in foods. • A product of yeast metabolism is carbon dioxide, the same gas produced by most organisms. • Sugar is a simple carbohydrate, which is a nutrient found in foods. • Some foods contain more sugar than others do. • The sour taste of foods is due to acid. • Baking soda and acid react chemically to form new products, one of which is carbon dioxide. • Baking soda can be used to indicate acid. • Indophenol can be used to indicate Vitamin C, ascorbic acid. • Calories are a measure of the amount of energy in foods. • Labels on food packages provide nutritional information on carbohydrates, proteins, fats, vitamins, and calories. • Fats have more than twice as many nutritional calories as carbohydrates and proteins. • Gathering and organizing data. • Interpreting data and building explanations. 		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 3, 5, 8
	Advanced Planning/Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 1-21, 52. – Download optional tool: Benchmark and I-Check Assessment coding sheets at www.fossweb.com/NYC. 	Investigation/Activity Benchmark Assessment Packet, Survey/Posttest, pages 1-5.	Homework/Extra Practice

Grade 5

WEEK 9 (continued)	Lesson 36 Required (45 min) Objective(s): Apply content developed in the previous investigations.		Alignment with NYS Core Curriculum: <ul style="list-style-type: none"> • LE 4.2b, 5.3a • General Skills: Elementary Level: ix Intermediate Level: 3, 5, 8
	Advanced Planning/ Notes to Teachers Teacher Guide, Benchmark Assessment Folio, pp. 1-21, 52.	Investigation/Activity Benchmark Assessment Review (selected items)	Homework/Extra Practice