# **Learning Window: Supplemental Examples**

**EXAMPLE A:** In designing a unit on nutrition, a fourth-grade teacher drew on several of her state's health education standards\* (e.g., 5.1.N: Describe how to use a decision-making process to select nutritious foods and beverages) as well as on the Common Core State Standards (e.g., W.4.7: Conduct short research projects that build knowledge through investigation of different aspects of a topic). The Learning Window that she designed is shown here:

### **LEARNING WINDOW**

Title and topic of lesson or unit: "What is Healthy Eating?" - Nutrition Unit

### What will students need to KNOW?

- Know the five food groups represented on the USDA's "My Plate" icon (www.ChooseMyPlate.gov) and how much of each is recommended.
- Know how foods are organized into "color groups" and examples from each group.
- Know how to read a nutrition label.
- Know how to count calories & how many calories to consume per day.

## What will students need to UNDERSTAND?

- That eating well is one of many things that people can do to stay healthy
- That it's important to evaluate the validity of nutritional claims & be aware of misleading advertisements or news headlines
- Why a varied & balanced diet is essential for good health;
   how different foods satisfy different needs
- · Why the same eating plan isn't right for everyone
- · How fats can both harm and help us

## What HABITS OF MIND will I try to foster?

- Generating and pursuing thoughtful questions
   Pose three interesting questions about a favorite food (e.g., where did it originate?) & conduct research to find the answers.
- Evaluating the validity of information Don't believe everything you head!
- Searching for reasons and explanations
   Understand the why behind nutritional quidelines.

### What SKILLS will students need to develop?

- <u>Decision-Making</u>
   Use "healthy-eating criteria" to make smarter decisions about what to eat and what not to eat.
- Comparing & Contrasting
   Compare and contrast the different kinds of fats
   (saturated, trans, mono & polyunsaturated, trans), complex
   vs. simple carbs; and various fad diets.
- <u>Personalizing the content</u>, <u>researching</u>, <u>planning</u>
   Develop a personal nutritional plan that's based on sound principles.

#### What TERMS will students need to know?

nutrients, metabolism, calories, fiber, cholesterol, protein, vitamins, minerals, whole grains, simple & complex carbohydrates, saturated fat, unsaturated fat (poly & mono), trans fat, USDA, "food plate"

<sup>\*</sup>Health Education Content Standards for California Public Schools: http://www.cde.ca.gov/be/st/ss/documents/healthstandmar08.pdf

# **Learning Window: Supplemental Examples (continued)**

**EXAMPLE B:** In preparation for a unit on linear equations, a middle school mathematics teacher created two separate Learning Windows—one for himself and one for his students. He used *his* Learning Window (not shown) to take notes as he unpacked the relevant Common Core State Standards. He then converted his Window into a list of student-friendly learning targets (below) that he distributed to students at the start of the unit. (Notice that this teacher, like many mathematics teachers, drew on the Common Core Standards for Mathematical Practice when formulating his habits of mind.)

Topic: Linear Equations	
This Learning Window belongs to:	
What I will need to KNOW	HABITS OF MIND that I will try to develop
$\square$ What a linear equation is	$\Box$ I'll persevere when faced with challenging problems.
☐ The basic forms of linear equations: standard, two-point, slope-intercept, point-slope	<ul> <li>□ I'll strive for accuracy and precision.</li> <li>□ I'll focus on using the appropriate tools.</li> <li>□ I'll look for patterns in algebraic, numeric, and graphic representations.</li> </ul>
☐ What slope is, how to calculate the slope of a line, how to identify x and y intercepts	
☐ How to graph a linear equation and how to convert linear graphs into equations	
□ Who René Descartes was and which key term is named after him	
What I will need to UNDERSTAND	SKILLS that I will practice and use
<ul> <li>□ That linear equations have specific attributes</li> <li>□ How linear equations are relevant in the real world</li> <li>□ How linear equations can be used to represent, analyze, and solve a variety of problems</li> <li>□ That mathematical relationships can be expressed in different ways (for example, tables of ordered pairs, graphs, equations)</li> </ul>	<ul> <li>Error analysis</li> <li>I'll analyze completed problem sets, identify errors, and fix them.</li> <li>Collaboration</li> <li>I'll work with others to develop thoughtful and accurate solutions to problems.</li> <li>Data analysis &amp; making predictions</li> <li>I'll learn to analyze and interpret graphs.</li> <li>I'll use linear equations to make predictions.</li> <li>Visualization</li> <li>I'll graph data by hand and using a graphing calculator.</li> </ul>
TERMS that will be important for me to know and understand ordered pair, linear equation, slope, x axis, y axis, quadrant, origin, x & y intercepts, forms of linear equations (slope-intercept, point-slope, standard, two-point), dependent/independent variable. René Descartes, Cartesian coordinate plane	