

# Integrated Mathematics

Data Management and Healthy Living

Amanda Elliott and Jennifer Yates

P/J Section 2

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## **Integrated Mathematics Assignment**

### ***Mathematics and Health Education***

**Grade Level:** Five

#### **Mathematics**

**Strand:** Data Management and Probability

**Specific Expectation:**

- Read, interpret, and draw conclusions from primary data and from secondary data, presented in charts, tables, and graphs.
- Compare similarities and differences between two related sets of data, using a variety of strategies.

#### **Health and Physical Education**

**Strand:** Healthy Living

**Specific Expectation:**

- Explain how to use nutrition fact tables and ingredients lists on food labels to make healthier personal food choices.

## Knowledge and Understanding

Looking at the Nutrition label below, answer the following questions.

1. Name the nutrient that this food product has the most grams of.
2. How many grams of protein are in this food product?
3. What two nutrients listed are carbohydrates?
4. Which carbohydrate are there more grams of in this food product? Explain.
5. Overall, is there more fat or carbohydrate in this food product? Explain.

<b>Nutrition Facts</b>			
Per 1/2 cup (125 mL)			
<b>Amount</b>		<b>% Daily Value</b>	
<b>Calories 70</b>			
<b>Fat 0.5 g</b>		<b>1 %</b>	
Saturated 0 g + Trans 0 g		<b>0 %</b>	
<b>Cholesterol 0 mg</b>			
<b>Sodium 250 mg</b>		<b>10 %</b>	
<b>Carbohydrate 13 g</b>		<b>4 %</b>	
Fibre 2 g		<b>8 %</b>	
Sugars 6 g			
<b>Protein 2 g</b>			
Vitamin A	1 %	Vitamin C	2 %
Calcium	0 %	Iron	4 %

## Thinking

1. Looking at the chart below, which product (A or B) has more grams (g) of sodium? Show your answer using numbers, pictures, and words.

### Product A

### Product B

<b>Nutrition Facts</b> <b>Per ½ cup (125 mL)</b>	<b>Nutrition Facts</b> <b>Per 1 cup (250 mL)</b>
Sodium 55 g	Sodium 100 g

2. Looking at the chart below, answer the following questions using numbers, pictures, and words.

a) Which product (A, B, or C) has more calories per 1 cup serving? How many calories would this be?

b) If I only consumed  $\frac{1}{2}$  of a cup of Product B, how many calories would I have taken in? Show your work.

<b>Product A</b>	<b>Product B</b>	<b>Product C</b>
<b>Nutrition Facts Per <math>\frac{1}{2}</math> cup (125 mL)</b>	<b>Nutrition Facts Per 1 cup (250 mL)</b>	<b>Nutrition Facts Per <math>\frac{1}{2}</math> cup (125 mL)</b>
Calories 40	Calories 100	Calories 60



**2.** Using your knowledge of nutrition content and healthy eating, come up with three reasons to justify which soup is healthier, based on what the nutrition labels show. Share this information with a partner, and discuss the importance of comparing food product labels when shopping.

## **Reflections on New Learning**

The process and planning of this assignment presented us with some challenges along the way, however, these challenges contributed to an overall positive learning experience.

We began by brainstorming ideas for integrating all different subjects across the curriculum into a math lesson. After much deliberation we decided to integrate health education with mathematics. The Healthy Living strand of the Health and Physical Education curriculum is something that we both have knowledge of, but have the least amount of practical teaching experience with. It is for that reason that we chose to integrate our activity with health, as it was able to present us with more of a challenge.

In the beginning it seemed simple enough to come up with some great ideas for creating an integrated lesson, however, as we began to plan the task proved not to be so simple after all. We had a difficult time taking our ideas and matching them up with valid mathematics and health and physical education curriculum expectations. The realization of there being a new, 2010, Health and Physical Education curriculum document also caused for some complications, having us adapt the lesson that we had began working on and make significant modifications to fit the current curriculum expectations.

Although this assignment presented us with some challenges, it also presented us with some great opportunities. We found it to be a very useful assignment. It allowed for us to become more comfortable with introducing integration into our lessons, and it gave us the opportunity to become more familiar with both the Mathematics and Health and Physical Education curriculum documents. It was great practice as it forced you to be creative and innovative. With our lesson, in particular, we wanted to incorporate math into an activity that the students could apply to “real life”, and show them its relevance and practicality.