



## SAMPLE LESSON PLANS

### Health Smart Virginia - Sample Lesson Plan

Grade 4th

Unit General Nutrition

**SOLs:**

- [4.5 A]
- 4.5 A- Identify the **number of calories** per gram of fat (9), protein (4), and carbohydrates (4).

**Title:** Energy Pin Down

**Objectives/ Goals:**

- [Students are learning about macronutrients]
- Students will know that there are 3 basic macronutrients that is where we get are energy from
  - Students will learn the number of calories per gram for each one

**Materials:**

- [Equipment and Set Up]
- 1 bowling pin for every student
  - Gator balls

**Procedure:**

**Intro-** Discussion should cover:

- There are 3 types of macronutrients (fat, protein and carbohydrate)
- Macronutrients are: chemical substances required in large amounts by the body for survival

- Fat- 9 calories per gram- healthy fats should make up 20-30% of caloric intake- seafood, nuts, and seeds are great sources of healthy fats
- Protein- 4 calories per gram: 10 – 35% of diet- found in meat, seafood, nuts, seeds, beans, dairy and some vegetables
- Carbohydrate- 4 calories per gram: 45-65% of diet- fruits, vegetables and whole grains consist mostly of carbohydrate

### **Description-**

Gator balls represent foods that are good sources of each macronutrient. Teacher needs to designate specific color gator balls to represent each macronutrient. Students protect their own pin while throwing gator balls at the pins of others. If the pin gets knocked down, it means they have just consumed food and taken in the calories. They must go outside the playing area and burn the calories to stay in energy balance. If the fat ball hits the pin, they do 9. They need to do 4 for either carb or protein. Feel free to designate specific exercises or leave the choices open ended.

### **Closure**

- How many calories per gram are in fat?
- How many calories per gram are in protein?
- How many calories per gram are in carbohydrates?

### **Assessments, References & Sources:**

#### **Resources:**

- <https://www.globalhealingcenter.com/natural-health/what-are-macronutrients/>

#### **Assessments:**

Use the exit slip found below.

In class today, we learned about macronutrients. Please answer the following questions:

1) How many calories per gram are in fat?

A) 4

B) 7

C) 9

2) How many calories per gram are in protein

D) 4

E) 7

F) 9

3) How many calories per gram are in carbohydrates?

G) 4

H) 7

I) 9