Unit: General Nutrition

SOLs:
- 4.5 B- Explain the uses of salt and sugar and the harm of excessive salt and sugar intake.

Title: Sugar Vortex

Objectives/ Goals:
[Students are learning about sugar and RDA]
- Students will know the risks of excessive sugar consumption.
- Students will learn that the RDA value for the “sugar limit” depends on total caloric intake.

Materials:
[Equipment and Set Up]
- 1 large mat or bin in the middle of the gym- gator balls go in the bin
- Flag belts- 1 per student
- Pinnies- to divide students into 4 equal teams
- Cones- to divide playing area into 4 equal zones and to mark the safe zone in each team’s area. Safe zone should be about 8-10 feet in diameter.
- 8 gator balls- 2 in each team’s safe zone to start

Procedure:
**Intro**- Discussion should cover:
- Too much added sugar over time can lead to type 2 diabetes, heart disease, and weight gain along with other unpleasant health consequences
- RDA for added sugar consumption puts the limit at 10% of total caloric intake. That means 12.5 grams of sugar for every 1,000 calories.
- The average 4th grader consumes about 2,000 calories per day. Sugar limit = 25 grams

**Description**-
This is a capture the flag style game with 4 teams. Each gator ball represents a sugary treat that contains 4 grams (1 teaspoon) of added sugar. Each team starts with two and attempts to borrow from the other teams by invading other team’s zones to retrieve their sugary treats. If a student’s flag belt gets pulled in enemy territory, they must freeze where tagged until either a teammate sets them free or the teacher calls jailbreak. Students may either run back to their team’s home with the gator ball, or throw it to a teammate. If the ball hits the ground, it must be returned to where it came from. Teams are trying to collect the sugar from others, but can only do so in moderation. Each team has a limit of 2 sugary treats at a time. Excess treats go to Jabba the Hut (middle bin). Once treats are placed in the bin, they are eliminated from the game. Any student can place a ball in the bin at any time, even if their team has fewer than 2 gator balls in their home area. The game ends when Jabba the Hut has reached his added sugar consumption limit (7 teaspoons). At that time, there will be 1 sugary treat left in play. The team whose home area contains the last sugary treat is the winner of the round.

**Closure**
- Name some of the health risks associated with eating too much added sugar
- Name some foods high in added sugar that we should limit or avoid

**Assessments, References & Sources:**

**Resources:**
- [https://www.webmd.com/diet/features/how-sugar-affects-your-body](https://www.webmd.com/diet/features/how-sugar-affects-your-body)
- [http://sugarscience.ucsf.edu/the-growing-concern-of-overconsumption.html#.W1RyR9JKiDc](http://sugarscience.ucsf.edu/the-growing-concern-of-overconsumption.html#.W1RyR9JKiDc)

**Assessments:**
Use the exit slip found below.
In class today, we learned about added sugar. Please answer the following questions:

1) Which of the following are potential health risks for eating too much added sugar?
   A) Rotten teeth
   B) Heart disease
   C) Type 2 diabetes
   D) Weight Gain
   E) All of the above

2) What is the added sugar limit for the average 4th grader who eats a 2,000 calorie diet?
   A) 6 teaspoons (24 grams)
   B) 9 teaspoons (36 grams)
   C) 18 teaspoons (72 grams)
   D) 25 teaspoons (100 grams)