

What's in Your Runner?

Sugary Drinks Learning Activity

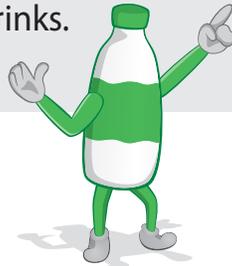
Action Schools! BC



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By looking at various drinks as the “runners in a race”, students will begin to develop an understanding of which drinks provide their bodies with the best fuel, and which ones should be avoided.

Students will learn to determine and report how much sugar is in various drinks using nutrition labels on food packages. This will help them to make informed decisions about their choice of drinks.



CURRICULUM CONNECTIONS



BIG IDEAS

- Adopting healthy personal practices and safety strategies protects ourselves and others.

CURRICULAR COMPETENCIES:

- Explore strategies for making healthy eating choices.
- Develop and demonstrate respectful behaviour when participating in activities with others.
- Identify and apply strategies that promote mental well-being.
- Describe ways to access information on and support services for a variety of health topics.

CONTENT

- Practices that promote health and well-being, including those relating to physical activity, nutrition, and illness prevention.

Sugary Drinks



FIRST PEOPLES PRINCIPLES OF LEARNING FOR ALL STUDENTS

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
- Learning involves recognizing the consequences of one's actions.

COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



RELATIONSHIPS AND ENVIRONMENTS

- Ensure students work with several different classmates during these activities.

TEACHING AND LEARNING

- Students learn that what we drink is important to overall health and wellness.

COMMUNITY PARTNERSHIPS

- Invite someone from a local recreation centre to speak to the class about healthy activities they can do in their community.

OUR SCHOOL POLICIES

- Invite the principal into the class for a discussion on healthy beverage selection in the school.

PREPARATION

- Review the *Sugary Drinks* section of the *Healthy Eating Overview* (included with this activity).
- Review the *Getting to know the Runners in the Race* Grade 1 activity (www.actionschoolsbc.ca/resources).
- Box of sugar cubes or plastic cubes, such as those used as math manipulatives.
- Optional: use teaspoons of granulated sugar, 5 ml or 1 tsp = 1 cube sugar.
- Clear plastic cups.
- Sip Smart! BC™ *Drink Cut-outs* (copied or printed, link included below).

IMPLEMENTATION IDEAS

- Begin lesson with 2 minutes of concentrative meditation-this focuses the attention on the breath, an image, or a sound (mantra), in order to still the mind and minimize thoughts.
- Explain to students about “The Runners”: A variety of drinks line up at the starting line, then set out in a running race. Some, the best fuel for our bodies are able to get ahead, run the whole race, and finish in the lead. These “winners” are water and plain milk. Chocolate milk, fortified chocolate soy beverage, and 100% orange juice finish the race behind these first two, but ahead of other sugary drinks, including iced tea, sports drink, cola, and lime blast slushy.
- As a math activity to complement this story, build and explore a sugary drink display with your class. In small groups, encourage students to showcase their learning in a way of their choice – may be a graph, a physical display of cubes, sugar in baggies, a poster, etc.).
- Assign each of the drink characters from the story (using the Sip Smart! BC™ *Drink Cut-outs*) to a group of students.
- Provide each group with a bag of sugar cubes or plastic cubes and a plastic cup.
- Have students guess the number of sugar cubes in their drink and fill the labelled cup with that number.
- Have each group report their guess to the class.
- Show students how much sugar each beverage actually contains, in terms of sugar cubes.
- Actual order of finishers:

Water (250 ml)	0 cubes	FIRST
Plain Milk (250 ml)	3 cubes	FIRST
Chocolate Soy Beverage (250 ml)	5 cubes	SECOND
100% Orange Juice (200 ml)	5 cubes	SECOND
Chocolate Milk (250 ml)	6 cubes	SECOND
Iced Tea (355 ml)	10 cubes	LAST
Sports Drink (700 ml)	10 cubes	LAST
Cola (591 ml)	17 cubes	LAST
Lime Blast Slushie (1000 ml)	24 cubes	LAST



- To create a classroom display, attach each drink cut-out with its corresponding bag of sugar to a bulletin board.
- Discuss the high sugar content of some of the examples. Have students explore how much sugar they would consume if they had several sugary drinks in a day.
- Reducing the use of sugar sweetened beverages will help protect our teeth and reduce our risk of chronic disease.
- Traditionally First Peoples encouraged water as the best beverage for it is the most life-sustaining gift on Earth and is the interconnection among all living beings, an integral aspect of First Peoples culture.

Inspired by Sip Smart! BC™

EXTENSION OF LEARNING

- Invite students to add up how much sugar they will consume in a year if they drink one sugary beverage a day (eg. Slushie). This will allow them to see the impact of their choices over time, and that just one drink a day can add a huge amount of sugar to their diets over the course of a year. They could then share this information at a school assembly in the form of a skit.
- Obtain restaurant menu nutritional information (available online or in stores). Have students examine menus and look for drink choices that are both high and low in sugar.
- Use math manipulatives to depict sugar cubes in various drinks (1 cube = 1 sugar cube = 1 tsp = 4 g).

RECOMMENDED RESOURCES



- Sip Smart! BC™ Drink Cut-outs (printed - <http://www.bcpeds.ca/Programs/showcontent.aspx?MenuID=3370>)
- Healthy Families BC (www.healthyfamiliesbc.ca) - *Sugary Drink Sense*
- BC Ministry of Education – Guidelines for Food and Beverage Sales in BC Schools (F) (<http://healthyschoolsbc.ca/program/395/guidelines-for-food-and-beverage-sales-in-bc-schools>)

EDUCATOR BACKGROUND

WHICH RUNNER WINS THE RACE?

In First Place, a Tie Between:

- Wonderful Water: Always a great choice! Quenches thirst and always good to sip throughout the day.
- Marvellous Milk: A healthy drink choice! Contains naturally occurring sugar, but also contains nutrients such as protein, calcium, and vitamins A and D.

Finishing After These Two Are:

- Chocolate Milk/other flavoured milk: Flavoured milk has just as much nutritional value as white milk (calcium, vitamin D, and protein), however, it does have more sugar.
- Fortified Chocolate Soy Beverage: Flavoured soy beverage has as much nutritional value as unflavoured varieties, but contains more sugar. Better yet, choose fortified, unsweetened varieties, which contain similar nutrients to cow's milk.
- 100% Juice: The healthiest juice choice! Contains naturally occurring sugar, but may also contain nutrients such as vitamin C, vitamin A, folate, potassium, antioxidants, and more.

In Last Place:

- Sports Drinks, Fruit Drinks, Chocolate Bar Milkshakes, Pops, Diet Pops, Iced Teas, Lemonades, Energy Drinks, etc. These drinks are high in sugar, and generally contain few nutrients.

Drink water – it's always a great choice! ✓

SUGARY DRINKS OVERVIEW

This section of the *Healthy Eating Overview* will explain what is meant by ‘sugary drinks’, provide tips and tools for assessing popular drinks and share information relating to the levels of caffeine found in many of these drinks. Find the complete *Healthy Eating Overview* at www.actionschoolsbc.ca/resources.

KEY MESSAGES

Some drinks don’t fit into the four food groups in *Eating Well with Canada’s Food Guide* or *Eating Well with Canada’s Food Guide – First Nations, Inuit and Métis*.

- Sugar is a major ingredient in many popular drinks.
- Knowing what is in drinks helps us to make healthy choices.
- The number and size of servings we drink affects the amount of sugar we consume.
- Drinking sugary drinks “bumps out” nutritious drinks.
- Some ingredients in sugary drinks other than sugar, such as acid and caffeine, may damage our health.
- Drink choices can be influenced by various factors, including family, friends, and the media.
- We can decide for ourselves to make healthy drink choices.
- Drink water – it’s always a great choice!

Adapted from: Sip Smart! BC™

What Are Sugary Drinks?

Added Sugars



- Sugary drinks are drinks (carbonated or not) that contain added sugars. These can include:
- Pop or soft drinks
- Energy drinks
- Hot chocolate
- Store-bought smoothies
- Slushes
- Fruity drinks (e.g., “punches”, “cocktails”, or “ades”)
- Sports drinks
- Flavoured or vitamin-enhanced waters

Added sugars are sugars and syrups that are added to drinks or food during processing (e.g., sugars added to soda by the manufacturer) or preparation (e.g., sugars added to a cup of coffee after it was bought at the coffee shop). Sugary drinks often have little to no nutritional value. For examples, children and adolescents who drink pop regularly are more likely to have lower intakes of calcium and other nutrients.

Sugary drinks are heavily marketed, available in many locations, and often displayed at the eye level of children. These drinks can contribute to unhealthy weight, which puts a child at increased risk of high blood pressure, heart disease, type 2 diabetes, cancer and other health problems. A healthy weight, on the other hand, supports the mental, physical and social health and well-being of individuals, families and communities.

Naturally Occurring Sugars

Naturally occurring sugars are no different from added sugars in terms of their effects on the body. However, because drinks with naturally occurring sugars often contain important nutrients, they can be consumed in moderation as part of healthy eating. Some drinks with naturally occurring sugar are 100% fruit juice (contains fructose), and plain milk (contains lactose).

Hidden Sugars



Hidden sugars are other names for added sugars that might not sound or look like sugar. These include: sucrose, dextrose, maltose, galactose, liquid glucose-fructose, invert sugar, raw cane sugar, brown sugar, corn sweetener, high-fructose corn syrup, rice syrup, fruit juice concentrates, honey, malt syrup, and molasses.

Juice and Fruity Drinks



The difference between 100% fruit juices and “fruity drinks” (e.g., “fruit beverages”, “fruit drinks”, “fruit cocktails”) can be a difficult concept for students to grasp, but is a very important teaching point. Although the majority of added sugar consumed by students often comes from these drinks, they – and often their parents – may not know the difference between 100% fruit juice and fruity drinks.

100% fruit juice contains some of the natural vitamins (such as vitamin C, potassium and B-vitamins) found in fruit. However, fruit juice still contains a lot of concentrated sugar, and has the same effect on teeth as other sugary drinks. For this reason, children should have no more than 1 serving (125ml, 1/2 cup) of 100% fruit juice daily. A healthier alternative to 100% fruit juice would be a glass of water and a piece of fresh fruit, which provides all the vitamins, minerals, and fibre naturally present, but with much less sugar. Juice is not a necessary part of a healthy diet. Fruits and vegetables are!

What About Artificial Sweeteners?



In keeping with the Guidelines for Food and Beverage Sales in B.C. Schools, drinks sweetened with artificial sweeteners such as aspartame, acesulfame potassium and sucralose are not allowed for sale in elementary and middle schools. Just like sugary drinks, artificially sweetened drinks get children used to sweet-tasting, non-nutritious items. They provide none of the nutrients that a child’s growing body needs to be healthy and strong, and can bump healthy foods and drinks out of a child’s diet. These drinks may also contain artificial sweeteners in amounts that exceed the acceptable daily intake (ADI) for children.

Energy Drinks



Energy drinks contain as much or more added sugar than cola, are high or very high in caffeine, and often contain potentially harmful additives. Energy drinks are often marketed with images of extreme sports such as competitive downhill skiing, biking, snowboarding and skateboarding, with the implication that these drinks boost performance. Others, with flashy packaging and enticing names are designed to directly target the youth market.

Energy drinks are very high not only in sugar, but also in caffeine. For example, a 500mL can of a typical energy drink contains 160mg of caffeine. That is more than double the suggested daily caffeine maximum for a 7-12 year-old child.

Many energy drinks also contain stimulant herbs or other substances such as guarana and taurine. These additives are often listed misleadingly as “medicinal ingredients” on energy drinks, when in fact they are untested and potentially harmful, especially for children. Like sports drinks, energy drinks also tend to contain artificial flavours and/or colours.

When consumed in large amounts, or when combined with alcohol, energy drinks have been linked to serious health effects such as irregular heart function, nausea and vomiting, and electrolyte disturbances. Energy drinks can also interact with some medications.¹

Milk, Flavoured Milk and Other Beverages Made With Milk



Milk and milk alternatives (e.g. unsweetened fortified soy beverage) are the main source of calcium and Vitamin D in most Canadian diets. Both calcium and vitamin D help build and maintain strong bones and teeth. Plain milk is also a source of protein, vitamin A and riboflavin.

One cup (250mL) of plain milk = 1 serving from the Milk and Alternatives food group in *Eating Well with Canada's Food Guide* and in *Eating Well With Canada's Food Guide – First Nations, Inuit and Métis*. Children aged 4-13 should aim for 2 to 4 Food Guide Servings of Milk and Alternatives each day.

Adding vanilla, chocolate, strawberry and other flavours to plain milk can add a lot of extra sugar. It is best to offer children plain (not flavoured) milk regularly so they learn to enjoy it. If making flavoured milk at home, add a small amount of syrup or powder. Less is best.

Drink water – it's always a great choice!

Adapted from: *Sip Smart! BC™*



References:

1. Sip Smart! BC™ (<http://healthyschoolsbc.ca/program/298/sip-smart-bc>)