

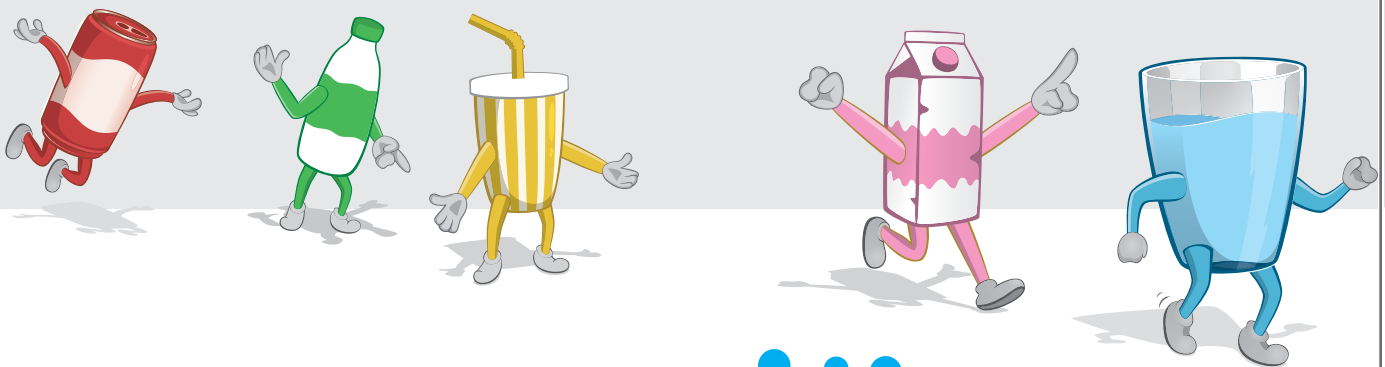
Which Runner Wins the Race?

Sugary Drinks Learning Activity

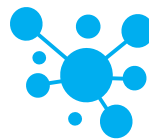
Action Schools! BC



By looking at a variety of drinks as “runners in a race”, students will begin to develop an understanding of which drinks provide their bodies with the best fuel to help them grow, go, and win the race. The drinks that are the slow runners should be limited or avoided.



CURRICULUM CONNECTIONS



BIG IDEAS

- Knowing about our bodies and making healthy choices helps us look after ourselves.
- Good health comprises physical, mental, and emotional well-being.

CURRICULAR COMPETENCIES:

- Identify and explore a variety of foods and describe how they contribute to health.
- Identify opportunities to make choices that contribute to health and well-being.
- Develop and demonstrate respectful behaviour when participating in activities with others.

CONTENT

- Relationships between food, hydration, and health.
- Practices that promote health and well-being.

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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 involves recognizing the consequences of one's actions.

COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



RELATIONSHIPS AND ENVIRONMENTS

- Identify in your community where you can buy sugary beverages and where you can access healthier choices.

TEACHING AND LEARNING

- Encourage water consumption in school to improve health and cognition.

PREPARATION

- Review the *Sugary Drinks Overview* section of the Action Schools! BC *Healthy Eating Overview* (included with this activity) and *Educator Backgrounder* on the following pages.
- Provide each student with the materials to create an art project depicting their drinks in a race: including scissors, pencil crayons, crayons, and/or markers.
- Print [Sip Smart!™ BC Drink cut-outs](http://www.bcpeds.ca/sipsmart/) from the Sip Smart! BC™ website (www.bcpeds.ca/sipsmart/).

IMPLEMENTATION IDEAS

- Choose nine students to be the runners in the race and provide each of them with a different *Sip Smart! BC™ Drink Cut-out*. Line them up at the front of the class.
- Explain to students the drinks with the least amount of sugar are the best fuel for our bodies and will cross the finish line before the other drinks.
- Ask students to guess Which Runner Wins the Race?
- Ask the students who will come in second, third, fourth, etc.?
- Line up the nine students at the front of the class in the order the class thinks they will finish the race.
- Let the students know the “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 slushie.
- Line up the students at the front of the class in the following order from first to last:

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



- Have students cut out, decorate and label the characters in the race, from the drink cut-outs (From Sip Smart BC™ website).
- Create a classroom display showing which drinks finish in front, and last.
- Alternative idea: Without providing Sip Smart! BC™ Drink Cut-outs, simply have students create a drawing based on the “Which Runner Wins the Race?” story. Afterward, have students discuss the similarities and differences amongst their projects and those of their peers.
- As follow up to this activity, discuss with students the real life application of this new understanding. Which drinks should they choose most, sometimes, and least? Will this mean that they will make any changes to the drinks they currently consume on a regular basis?

Adapted from: Sip Smart! BC™

RECOMMENDED RESOURCES



- Sip Smart! BC™ Drink Cut-outs (printed) (<http://www.bcpeds.ca/Programs/showcontent.aspx?MenuID=3370>)
- Healthy Families BC (www.healthyfamiliesbc.ca)
- HealthLink BC: Call 811 and speak with a registered dietitian

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.
- Marvelous Milk: A healthy drink choice! Contains naturally occurring sugar, but also contains nutrients such as protein, calcium, and vitamins A and D.
- Unflavoured fortified soy beverage is also a great choice for those that don't drink milk. It also includes nutrients like 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>)