Quick Glance

In this lesson, campers will:

✓ Explore the amount of sugar in some of their drinks
✓ Determine whether all that sugar is healthy
✓ Identify drinks that have less sugar, are healthier and still tasty
✓ Explain why water is the healthiest drink
✓ Make a delicious, healthy flavored water with fresh ingredients

Tasks:

✓ Exploration of sugar amounts in favorite beverages
✓ Examination of the effect of high-sugar drinks on a person
Lesson 5: Water Wonders

About:

In this final lesson, campers explore why water is ultimately the best choice of beverages after they examine the level of sugar in juice, soda, and others among popular drinks. They make flavored water using natural ingredients. This is the final dish of the Frost Valley meal.

Achievement-Based Objectives:

These describe what the camper will have learned and might apply during and beyond the cooking session. At the end of this lesson, campers will have:

- Determined the amount of sugar in a variety of canned and bottled drinks
- Identified the impact of sugary drinks on a person’s overall health
- Named healthier drink options
- Recognized water as among the best drink choices
- Prepared a healthy flavored water using a variety of fresh produce and herbs

Lesson Focus:

Processed Drinks, Water as Healthy Beverage

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Time</th>
<th>Menu Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-8</td>
<td>60 minutes</td>
<td>Beverage</td>
</tr>
</tbody>
</table>
**Materials and Prep:**

- Make sure the following materials are prepared ahead of the class.
- Items to duplicate and/or enlarge are in *Lesson Docs* at the end of the lesson.
- Recipe ingredients and equipment/utensil materials are in the *Recipes* section at the end of the lesson.

<table>
<thead>
<tr>
<th>Task</th>
<th>Items</th>
<th>Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lesson Starter</strong></td>
<td>✓ Doc 1: What campers will learn</td>
<td>✓ Write and post the camper-friendly objectives on chart paper</td>
</tr>
<tr>
<td><strong>What’s in My Drink?</strong></td>
<td>✓ Self-adhesive chart paper</td>
<td>✓ Display the items where all campers can see them.</td>
</tr>
<tr>
<td></td>
<td>✓ Markers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Empty cans of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Soda (12 oz. can)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fruit drink (8 oz. or 12 oz. container)</td>
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<tr>
<td></td>
<td>- Iced tea (12 oz. can or bottle)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Milk (8 oz. carton)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Chocolate milk (8 oz. carton)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 100% orange juice (8 oz. bottle)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sports drink</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Bottle of water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Other common drinks that young people like</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Container of sugar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Measuring teaspoons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Clear cups</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Pencils</td>
<td></td>
</tr>
<tr>
<td><strong>Making Flavored Water</strong></td>
<td>✓ Ingredients for flavored water</td>
<td>✓ Place in a central location accessible to all campers.</td>
</tr>
<tr>
<td></td>
<td>✓ Ice</td>
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</tbody>
</table>
### Procedures Part I  
**Time: 20 Min.**

#### What to Emphasize

Water or plain seltzer is the best choice.

If you drink fruit juice, only drink 100% juice. Check the nutrition label to see if it is all juice and to see if there is added sugar and other additives that would make it a less healthy choice. One small cup of juice a day is sufficient.

You can also dilute the juice by adding water. That cuts down on the amount of sugar you are taking in...and makes the juice last longer.

Avoid soda! They have lots of sugar. Diet sodas are not a good alternative. Their artificial sweeteners tend to have negative effects on a person’s health. Soda in general has empty calories-meaning no nutritional benefits.

Choose low-fat milk and avoid flavored milk because it contains added sugar.

You can make fresh veggie and/or fruit smoothies. But don’t add sugar!

<table>
<thead>
<tr>
<th>Step</th>
<th>Task 1: Lesson Starter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Welcome the campers back to Day 5 of <em>Incredible Edibles</em>. Ask campers whether they made any new food choices.</td>
</tr>
<tr>
<td>2</td>
<td>Share the camper-friendly objectives, listed on <em>Doc 1: What campers will learn.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step</th>
<th>Task 2: What’s in My Drink?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Display the various beverage bottles. Invite the campers to share their favorite drink. List the drinks on chart paper.</td>
</tr>
<tr>
<td>5</td>
<td>Explain that choosing what to drink is just as important as choosing what you eat. Lots of drinks actually have a lot of sugar that can lead to health issues, like cavities and gaining weight. We need to choose the right types of drink to keep our bodies healthy.</td>
</tr>
</tbody>
</table>
### Reflection:
How do you know how much sugar is in your favorite drink? Invite campers to share their thoughts. Note the mention of ingredients, explaining that yes, looking at the amount of sugar on the can or bottle is a start.

Tell campers they get to use their math skills to figure out how much sugar is in some drinks. Start with a can of soda.

<p>| | |</p>
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td><strong>Write on chart paper:</strong></td>
<td>4 gm (grams) sugar = 1 teaspoon of sugar.</td>
</tr>
<tr>
<td><strong>Have campers find the grams of sugar and servings per container on the label.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Multiply these numbers to get the total grams of sugar for the whole bottle or can.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Have campers divide the number of grams of sugar by 4 to get number of teaspoons of sugar.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Invite a volunteer to help measure out the amount of sugar in the soda in front of the class.</strong></td>
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</tbody>
</table>

Ask and discuss: What do you notice about the amount of sugar in the drink? Is it more or less than you expected? What do you have to do when you shop for drinks at the store? (Read the label to calculate actual sugar amounts.)

Have a volunteer or two demonstrate sugar levels in at least two more beverages.

**IF TIME PERMITS:** Have each station measure the amount of sugar in a different beverage. And then compare to see which ones have the most and least sugar.

Explain that many of us consume much more sugar than we think—especially if we are drinking more than one high sugar drink each day. Explain that beverages like milk and 100% fruit juice do have sugar, but it is natural sugar. They also contain more vitamins and minerals, which makes them healthier choices. Soda, fruit drinks and sport drinks have added sugar and usually have no vitamins or minerals.

Probably the best and healthiest drink is water. (Address bottled water from an expense and environmental standpoint.) Bottled water is not really a viable option, unless available water has been compromised. Encourage campers to use reusable water bottles.

Ask campers whether it is possible to give water a more exciting taste. Invite them to share ideas.
Procedures Part II

<table>
<thead>
<tr>
<th>Step</th>
<th>Task 5: Making Flavored Water and Messaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Tell campers they get a chance to make some flavored water. Have each group/station select a flavored water recipe to make or create an original flavored water with fruit, herbs, and spices you have provided for this lesson.</td>
</tr>
<tr>
<td>17</td>
<td>Have campers match ingredients to the Healthy Eating Plate.</td>
</tr>
<tr>
<td>16</td>
<td>Demonstrate the making of a flavored water.</td>
</tr>
<tr>
<td>18</td>
<td><strong>CLOSING:</strong> Have campers stand in a circle and raise their flavored water to make a toast to healthy food choices. Invite each camper to share a simple thought on his or her Incredible Edibles journey, citing one major thing they will take away from the experience. Have campers assist in clean up if time permits.</td>
</tr>
</tbody>
</table>

**RECIPES**

There are several recipes below for flavored water, along with an option for campers to create original flavored water. If you want more variety, here are some URL links that offer an array of recipes.

- **Yummly**

- **Greatist**
  [http://greatist.com/health/flavored-water-healthy-recipe](http://greatist.com/health/flavored-water-healthy-recipe)

- **Huffington Post**
**Cook ‘n’ Chat**

**About flavored water**
Flavored water is a great way to jazz up a plain glass of water and are great thirst quenchers for summer when many of the fruits and herbs can be picked fresh for maximum flavor. Any combination of fruits, herbs, and even vegetables like cucumbers, can be used to flavor the water. Fill a large pitcher or jar to store up to 2-3 days in the refrigerator.

**What’s healthy about it?**
Flavored water is a fun and refreshing alternative to other flavored drinks, many of which contain large amounts of added sugar. You can also eat the fruit after drinking the water for added nutrients. Pineapple, kiwi, and citrus fruits are packed with vitamin C for fighting illness; melons have vitamin A for good eyesight, and berries have antioxidants to help prevent disease.

**Healthy Eating Plate**
Flavored water meets the water component of the Healthy Eating Plate.

**Flavored water trivia**
Bottled flavored water is popular. But, beware, because these processed beverages are not really water. Some of the additives and other ingredients make them more like a soft drink. Some of them are sweetened, making them a sugary, less healthy drink.

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**Flavored Water Tools**
Basic items used for making flavored water.

1-quart jars
Water
Wooden Spoon

**Basic directions for all flavored waters**

1. Choose which recipe you’re making — or come up with your own combination — and gather all of the ingredients.
2. Place the fruit, herbs, and/or spices in the bottom of one of the glass jars, and muddle with a wooden spoon. (That basically means mash up the fruit in the bottom of the jar to release some of the flavor-filled juices.)
3. Fill the jar with water and give it a taste. (You can also fill the jar with seltzer water for a fizzy treat.) Enjoy as-is or refrigerate overnight for maximum flavor.

**Source:** [http://greatist.com/health/flavored-water-healthy-recipe](http://greatist.com/health/flavored-water-healthy-recipe)
Core Value Flavored Water
Campers make various flavored waters matching selected fruit with each letter of the Frost Valley core values.

Ingredient ideas

Berries (whole or sliced): Strawberries, Raspberries, Blackberries, Blueberries

Melon (cubed): Watermelon, Cantaloupe

Citrus (sliced into thin rounds): Lemon, Lime, Orange, Grapefruit

Other Fruit (sliced into thin rounds): Kiwi, Pineapple

Vegetables (slice into thin rounds): Cucumber

Herbs: Mint, Basil, Sage, Rosemary, Lavender

Suggested Pairings

✓ Watermelon + Basil
✓ Lemon + Lime + Orange
✓ Cucumber + Mint
✓ Lime + Mint
✓ Blackberry + Sage
✓ Raspberry + Lime
✓ Watermelon + Rosemary


Sample Recipes (there are many other recipes online)

**Watermelon Mint**
1 cup cubed watermelon
1/4 cup fresh mint leaves

Source: http://greatist.com/health/flavored-water-healthy-recipe

**Pineapple-Orange w/ Ginger**
1/2 cup cubed pineapple
1/2 an orange, sliced
1 tbsp freshly-grated ginger

Source: http://greatist.com/health/flavored-water-healthy-recipe

**Minty Cucumber Lime**
1/2 a cucumber, sliced
1/2 a lime, sliced
1/4 cup fresh mint leaves

Source: http://greatist.com/health/flavored-water-healthy-recipe

**Strawberry-Lemon w/ Basil**
1/2 cup sliced strawberries
1/2 a lemon, sliced
1/4 cup fresh basil leaves

Source: http://greatist.com/health/flavored-water-healthy-recipe

**Cherries Jubilee**
2 cups pitted and halved fresh cherries, 3 thinly sliced lemons & 2 vanilla beans.


**Tropical Twist**
2 cups pineapple chunks, 2 cups mango chunks, 1 thinly sliced star fruit.

LESSON DOCS

Doc 1: What campers will learn
Doc 1: What campers will learn

Reproduce the following on a sheet of self-adhesive chart paper. Post so campers can see the list. Modify accordingly.

You will learn:

- About the amount of sugar in some of your favorite drinks
- Whether all that sugar is good for you
- That with less sugar are good for you... and still tasty
- How water is your best drinking option
- How to make delicious, healthy flavored water with fresh ingredients