

### **The 4-H Motto**

*"Learn to Do by Doing"*

### **The 4-H Pledge**

I pledge

My **Head** to clearer thinking,  
My **Heart** to greater loyalty,  
My **Hands** to larger service,  
My **Health** to better living,  
For my club, my community, and my country.



### **The 4-H Grace**

(Tune of Auld Lang Syne)

We thank thee, Lord, for blessings great  
on this, our own fair land.  
Teach us to serve thee joyfully,  
with head, heart, health and hand.

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# Introduction

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## **How To Use the 4-H Foods Project Activity Guide**

The 4-H Foods Project Activity Guide consists of nine themes. Each theme is identified with a box in the top left corner at the beginning of each activity. Each activity is designed to stand alone. The activities do not need to be implemented in any specific order, but most activities complement one another. Some activities contain suggestions that allow for many variations of that activity. Choose a variation that is relevant to your topic and age group. You will find an alphabetical index of the activities at the end of the guide.

## **Eating Well**

This section has activities that center around “Eating Well with Canada’s Food Guide,” balance, moderation and healthy food choices.

## **Food Safety**

The activities cover the following aspects of food safety: personal hygiene, safe food handling practices, food storage and how everyone is involved in promoting food safety to prevent foodborne illnesses.

## **Fundamentals**

The activities cover the basics of cooking from reading recipes, measuring, and proper table manners, to reading and using labels for smart grocery shopping.

## **Cook it Right**

This section has activities that allow members to explore the science of cooking.

## **Backyard and Beyond**

This section has activities that allow 4-H members to explore the foods that are found both in their own communities and province, as well as across Canada.

## **Food for Thought**

This section allows 4-H members to explore the connection between their plates and the farm.

## **Field to Fork**

This section has activities that let members take a closer look at the food products they are consuming.

## **Celebration**

This section focuses on activities that will help prepare the members in the planning and organization of putting together a meal.

## **Judging**

This section has activities for the members to learn about proper judging techniques.

**The 4-H Foods Project Activity Guide was designed with three age groups in mind:**

**Junior:** 9 to 12 years of age

**Intermediate:** 13 to 15 years of age

**Senior:** 16 to 20 years of age

Each activity has been designed for one of these age groups, but occasionally activities are appropriate for more than one of the age categories. At the top of each activity the recommended age group is identified.

There are three activities that fall into a judging category. These activities are meant for the members to have an opportunity to judge to help members learn, evaluate, make decisions, communicate and develop confidence.

There is also a section for Internet activities. These activities can be done with the 4-H members who have computer and Internet access. Members are using the Internet and technology as means for obtaining information. These activities can be done during the session or provided as a take home activity.

**Each activity has the following format:**

TITLE

REFERENCE

LEARNING OUTCOME

TIME

MATERIALS/RESOURCES

INSTRUCTIONS

DISCUSSION/COMMENTS

PROCESSING PROMPTS

Each activity in the 4-H Foods Project has learning outcomes identified at the beginning of the activity, and processing prompts at the end. To gain a better understanding of why these were added to every activity, we have included the following section about experimental learning.

## **Experiential Learning**

Experiential learning is a model that, simply put, consists of action and reflection. Research shows that learning is often best achieved when it is fun, active, interesting and easy to understand. Participating in fun activities creates a sense of togetherness within a group and help members relate to one another, as well as allowing the group to relax, to feel safe and at ease. Through guided reflection and discussion, activities with meaning often help individuals understand concepts and skills more than if the same meaning was presented in a lecture format.

A leader can help 4-H members and groups learn, by leading activities with meaning. These activities can then be processed to help the group find the meaning. These lessons can then be applied to other area of the members' lives – helping them to transfer the meaning from the activity to the real world and every day life.

The following 4-H Foods Project Activity Guide includes learning outcomes at the beginning of each activity. Members will discuss and explore the meaning behind the activities and transfer these insights, through the help of the 4-H leader, into their every day lives whether it be in sports teams, school groups, community groups or at home with family. The 4-H leader can facilitate this by using the processing prompts listed at the end of each activity.

## **What is Processing?**

Processing is when individuals reflect, describe, analyze and communicate what they have or will be experiencing in an activity.

Each activity has processing prompts. There will be a list of questions to ask regarding concept to focus on in a group discussion. Some or all of the questions can be used to process the activity. Feel free to add your own processing prompts if you feel there is a specific topic that you would like to discuss.

When implementing the 4-H Foods Project Activity Guide, processing is most easily done with the group when sitting or standing in a circle, and when the group is attentive and focused on the discussion.

When questions are designed properly and used thoughtfully, discussion questions can be an effective learning tool that promotes creativity, as well as generates meaningful interaction and understanding for the member. Processing can be fast or slow depending on the group and the activity.

# Eating Well

## Healthy Eating Placemats

*Activity Adapted from: Kids in the Kitchen*

|                     |  |
|---------------------|--|
| TOPIC               | Eating Well with Canada's Food Guide   |
| LEARNING OUTCOMES   | To identify foods from the four food groups.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | <p>Canada's Food Guide*</p> <p>Northern Food Guide*</p> <p>Grocery store flyers</p> <p>Food magazines</p> <p>Construction paper</p> <p>Glue</p> <p>Scissors</p> <p>Markers/Crayons</p> <p>* You might also include other Food Guides from around the world to compare as well as encourage cultural diversity.</p>   |
| INSTRUCTIONS        | Ask the members to cut out pictures of their favourite foods from all four food groups using the food magazines and flyers. To help distinguish between the four food groups, hand out a copy of Canada's Food Guide. Have the members glue the pictures onto the construction paper to make a placemat version of their own food guide.   |
| DISCUSSION/COMMENTS | This activity is a good opportunity to introduce classification of food into the four food groups. Although a food may provide many different nutrients, its food group is determined by the main nutrients. Discuss how it is important to eat food from all four food groups in order to grow and be healthy. Discuss the differences/similarities between different food guides (Northern Food Guide, Canada's Food Guide, etc). You may want to laminate the placemats for the members and use them at each cooking class. |
| PROCESSING PROMPTS  | <p>What are your favourite foods from the grain products? Vegetables and fruit? Milk and alternatives? Meat and alternatives?</p> <p>Why do you like these foods?</p>  |



## Bean Bag Toss

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*Activity Adapted from: Kids in the Kitchen*

|                     |   |
|---------------------|---|
| TOPIC               | Eating Well with Canada's Food Guide  |
| LEARNING OUTCOMES   | To associate and classify food into the four food groups according to "Eating Well with Canada's Food Guide".   |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | 2-3 bean bags or hackey sacks   |
| INSTRUCTIONS        | <p>Have the members sit or stand in a circle.</p> <p>One member is given a bean bag or hackey sack.</p> <p>When the facilitator gives the signal, the member tosses the bean bag to another member while calling out the name of a food group.</p> <p>The member who catches the bean bag must correctly name a food (which has not already been named) from that food group.</p> <p>Play continues with the member who caught the bean bag tossing it to another member and calling out another food group. If a member gets the answer wrong they must step out of the circle. Play continues until one person is left.</p> <p>Suggestions:</p> <ul style="list-style-type: none"> <li>· Divide the members into two teams (each team having a bean bag). Have a volunteer for each team keep track of the correct answers. Most correct answers after a certain amount of time wins.</li> <li>· Add more than one bean bag into the circle at a time. Make sure the member tossing the bean bag calls out the member's name they are tossing it to as well as the food group (Jane...Grains).</li> <li>· Incorporate groups of food including; everyday snacks, sometimes foods, healthy snacks, and other.</li> </ul> |
| DISCUSSION/COMMENTS | Recognizing and identifying foods according to Canada's Food Guide is very important for a healthy lifestyle. Discuss the four food groups as well as how many servings of each group the members should be eating daily.   |
| PROCESSING POINTS   | <p>What are the four food groups?</p> <p>How many servings of each food group should we be having daily?</p> <p>What are your favourite foods from the four food groups?</p>  |

# Food Charades

*Activity Adapted from: Kids in the Kitchen*

|                     |  |
|---------------------|--|
| TOPIC               | Eating Well with Canada's Food Guide   |
| LEARNING OUTCOME    | To reinforce the four food groups according to "Eating Well with Canada's Food Guide".   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Paper<br>Pens<br>Scissors<br>Bucket  |
| INSTRUCTIONS        | <p>Preparation</p> <ul style="list-style-type: none"> <li>· Write a food as well as its food group on a slip of paper. Try to include a variety of food using all the food groups on slips of paper. Fold or crumble the slips of paper and put them into a bucket.</li> </ul> <p>Split the members into two teams.</p> <p>At the beginning of the game, the members must decide a motion or action to identify each food group. For example; pretend peeling an imaginary banana to represent the fruits and vegetables food group – you will need to think of four actions for each of the four food groups.</p> <p>These actions are needed to give your team a clue.</p> <p>One player from a team draws a slip of paper from the bucket. The member must first act out the food group by using the action that represents the food group that was determined by the members. The members must then act out the food written on the card without using words to their team. The team must then try to guess what food their team member is acting out.</p> <p>Play rotates between teams, each team getting a point if they guess correctly before the time is up. If the team guessing cannot correctly guess the food then the other team has one chance to guess and steal the point.</p> <p>Play continues until one team reaches a predetermined point score, time limit or until each member has had a chance to act out a food.</p> |
| DISCUSSION/COMMENTS | Being able to recognize and identify foods in Canada's four food groups is very important for establishing healthy eating habits. Discuss the importance of the four foods groups, the nutrients and vitamins that foods provide as well as the importance of including a variety of foods from each of the food groups.   |
| PROCESSING PROMPTS  | <p>What are the four food groups?</p> <p>Can you name some foods from each food group?</p> <p>Why do you think it's important that you eat a variety of foods from each group?</p>   |

# Balloon Food Guide

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*Activity Adapted from: Parkland Regional Health Authority*

|                     |  |
|---------------------|--|
| TOPIC               | Eating Well with Canada's Food Guide   |
| LEARNING OUTCOMES   | To reinforce the food group classification system of "Eating Well with Canada's Food Guide".   |
| TIME                | 15 minutes   |
| MATERIALS/RESOURCES | 5 yellow balloons (grain products)<br>5 red balloons (meat and alternatives)<br>5 green balloons (fruits and vegetables)<br>5 blue balloons (milk and alternatives)<br>5 pink balloons (other)<br>CD/cassette player and music   |
| INSTRUCTIONS        | <p>Have the members blow up the balloons.</p> <p>Have the members stand in a circle and explain to them that the yellow balloons represent grain products, red balloons represent meat and alternatives, green balloons represent fruits and vegetables, blue balloons represent milk and alternatives and pink balloons represent the "other" group.</p> <p>Start the music.</p> <p>Have the members keep the balloons up in the air, bopping the balloons back and forth to one another.</p> <p>Stop the music.</p> <p>Have each member grab a balloon. Have the members go around and name a food from the food group represented by the colour of the balloon that they are holding.</p> <p>If a member answers the food group incorrectly, have them sit out (each member who sits out can have a turn controlling the music).</p> <p>The last member to sit out is the winner.</p> |
| DISCUSSION/COMMENTS | This activity helps to reinforce the food group classification of Canada's Food Guide. It provides an opportunity to explain why certain foods belong to a particular group. Discuss the food groups and the important nutrients in each food (calcium, vitamin, protein, fibre etc). Discuss some cultural foods that fall into the four food groups.   |
| PROCESSING PROMPTS  | <p>What are the four food groups?</p> <p>What are some important nutrients found in the grains, fruits and vegetables, milk and meat alternatives?</p>   |

# Brown Bag Olympics

*Activity Adapted from: Parkland Regional Health Authority*

|                     |  |
|---------------------|--|
| TOPIC               | Healthy Lunches  |
| LEARNING OUTCOMES   | To demonstrate how to prepare and eat healthy school lunches.  |
| TIME                | 30 minutes   |
| MATERIAL/RESOURCES  | Grocery store flyers<br>Food magazines<br>Glue<br>Scissors<br>Markers/Crayons<br>Construction paper  |
| INSTRUCTIONS        | <p>Have the members divide the construction paper into 5 sections (each representing a day of the school week, Monday-Friday).</p> <p>Have the members cut out food from the flyers and magazines that would be appropriate yet creative for school lunches while keeping within the brown bag Olympic criteria.</p> <p>Each lunch must:</p> <ul style="list-style-type: none"> <li>· Have foods from the four food groups of Canada's Food Guide</li> <li>· Provide nutrients for growth</li> <li>· Not be deep fried</li> <li>· Not stick to teeth</li> <li>· Have limited artificial flavouring, colouring and preservatives</li> </ul> <p>Encourage the members to come up with creative healthy lunches that are different for each day of the week.</p> <p>After the members have finished cutting and pasting, have them pick what they think is their best lunch.</p> <p>The facilitator then goes through the criteria and categorizes all the lunches into gold, silver and bronze.</p> <ul style="list-style-type: none"> <li>· Gold – a lunch must include at least one food choice from each of the four food groups.</li> <li>· Silver – a lunch must include at least one food choice from three of the four food groups.</li> <li>· Bronze – a lunch must include at least two foods that provide nutrients for growth, are not deep fried, do not stick to teeth, and have limited artificial flavouring, colouring and preservatives.</li> </ul> |
| DISCUSSION/COMMENTS | <p>The Brown Bag Olympics is a fun way to promote and support healthy eating. Discuss the food choices that the members made for the lunches. Discuss the importance of including foods from all food groups to ensure proper growth and energy. Discuss the importance of members being involved in preparing their own lunches and snacks.</p> <p>Try this activity using the criteria for making a supper, breakfast or snacks.</p>   |
| PROCESSING PROMPTS  | <p>What types of food do you pack in your lunch?</p> <p>Who makes your lunches?</p> <p>What is one thing after this exercise that you could change in your own lunches?</p> <p>What are some creative food ideas that you include in your lunches at home?</p>   |

## My Food Choices Web

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*Activity Adapted from: Mission Nutrition*

|                     |   |
|---------------------|---|
| TOPIC               | Influences on Food Choices  |
| LEARNING OUTCOMES   | To recognize what factors influence the members' food choices.  |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | Pens<br>Construction paper<br>Markers/Crayons   |
| INSTRUCTIONS        | <p>On a piece of construction paper, have the members start with the words "My food choices" in a circle in the centre of the page.</p> <p>Have the members list the foods and drinks they ate over the last couple of days around the centre circle and then draw another circle around all of them.</p> <p>Have the members write key thoughts around those foods and drinks and circle them.</p> <p>Key thoughts include when, where, why, feelings, emotions, people etc.</p> <p>Connect each word bubble with a line to the next related idea.</p> <p>When one stream of thoughts runs out, start from the centre again, or from another bubble and move out with the ideas.</p> |
| DISCUSSION/COMMENTS | A word web is a good technique for exploring external influences in relation to food choices and allows members to link food, feelings and social influences. Members make certain food choices to address their immediate needs and wants. As members become more independent, they make more of their own food choices. Discuss key influences found in the member's webs taste, family behaviour, leaders, school policies, media, peer pressure, etc.   |
| PROCESSING PROMPTS  | <p>What factors influence your food choices?</p> <p>What might positively influence your food choices?</p> <p>What might negatively influence your food choices?</p>  |

# Incredible Food Processor Experiment

*Activity Adapted from: Mission Nutrition*

|                     |  |
|---------------------|--|
| TOPIC               | Carbohydrates and Body Fuel  |
| LEARNING OUTCOMES   | To identify the role of carbohydrates and how the body gets energy from the food we eat  |
| TIME                | 45 minutes   |
| MATERIALS/RESOURCES | <p>6 large clear glasses with lid<br/>           12 Tbsp (180 mL) lemon juice<br/>           4 1/2 cups (1125 mL) water<br/>           1 tsp (5 mL) sugar<br/>           2 crackers<br/>           1 slice of bread<br/>           1 handful of high fibre cereal (All Bran™, Bran Buds™)<br/>           1 slice of luncheon meat<br/>           1 slice of cheese<br/>           Measuring cups and spoons</p>  |
| INSTRUCTIONS        | <p>In each of the 6 large glasses mix 2 Tbsp (30mL) of lemon juice and 3/4 cup (200 mL) of water – mix well.</p> <p>Cut or break down food samples into small bits and add them to the respective glasses, gently stir, and then seal with a lid.</p> <ul style="list-style-type: none"> <li>• Glass 1 – 1 tsp (5mL) of sugar</li> <li>• Glass 2 – 2 crackers</li> <li>• Glass 3 – 1 slice of bread</li> <li>• Glass 4 – 1 handful of high fibre cereal</li> <li>• Glass 5 – 1 slice luncheon meat</li> <li>• Glass 6 – 1 slice of cheese</li> </ul> <p>Have the members observe and record the appearance of each sample after 1, 5, and 15 minutes. Ask the members to note which foods changed the most and which changed the least.</p>  |
| DISCUSSION/COMMENTS | <p>This experiment demonstrates how carbohydrates are the body’s preferred source of food energy. Our bodies need food energy for our brains to think, our muscles to work, our heart to beat and our lungs to breath.</p> <p>The water and lemon juice represent the acidic liquid in the stomach needed for the breakdown and overall digestion of foods.</p> <p>Cutting and breaking the food into small bits is like the job your teeth do to make the food we eat easier to digest.</p> <p>Students should observe that the carbohydrate-rich foods are broken down quickly and foods that contain a lot of protein or fat are broken down more slowly.</p> <p>Discuss how the members would feel if they skipped breakfast and forgot to pack their lunch, and then spent their day with no activity, or after a long game of a sporting activity.</p> |
| PROCESSING PROMPTS  | <p>What would happen to our bodies if we didn’t give it enough energy?<br/>           What kinds of food should you eat to provide your body with energy right away?<br/>           What kinds of foods should you eat so your energy lasts a long time?<br/>           What happens to your energy if you only ate sugary foods like chocolates and pop?</p>  |

# Stringy Soup Experiment

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*Activity Adapted from: Mission Nutrition*

|                     |   |
|---------------------|---|
| TOPIC               | Proteins  |
| LEARNING OUTCOMES   | To identify the role of proteins and their importance in tissue and muscle growth and maintenance.  |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | <p>Kettle</p> <p>2 cups (500 mL) water</p> <p>Large glass bowl</p> <p>Small cup or bowl</p> <p>1 raw egg</p> <p>Fork</p> <p>Measuring cup</p>   |
| INSTRUCTIONS        | <p>If you have many members, break into small groups.</p> <p>Boil 2 cups (500mL) of water in a kettle. Pour the water into the large glass bowl and wait for the bubbles to subside.</p> <p>Exercise caution with hot water!</p> <p>While waiting, break an egg into a separate small bowl/cup and beat it with a fork.</p> <p>Slowly trickle the egg into the hot water in a thin stream and gently swirl the “soup” with the food as you pour.</p> <p>Observe what happens to the egg. You should see long stringy strands of protein.</p>    |
| DISCUSSION/COMMENTS | <p>Proteins help the body grow and develop. The body breaks proteins down into building blocks called amino acids that cells use to build and repair tissue like muscles, skin, hair and nails.</p> <p>This “stringy soup” illustrates the primary structural role of protein, which is that it provides the building blocks for tissue growth and maintenance.</p> <p>Explain that eggs are made up of a bunch of twisted proteins, like a ball of string that’s curled up. Heat untwists the proteins and they form long stringy strands.</p> |
| PROCESSING PROMPTS  | <p>Which foods are good sources of protein?</p> <p>Why does our body need protein?</p> <p>What would happen if we did not eat protein?</p>  |

# Fat Finding Experiment

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*Activity Adapted from: Mission Nutrition*

|                     |   |
|---------------------|---|
| TOPIC               | Finding Fats in Foods   |
| LEARNING OUTCOMES   | To understand that fats are important for energy and nutrient absorption.   |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | <p>Brown paper bags (not waxed) or brown butcher paper</p> <ul style="list-style-type: none"> <li>· Samples of food from each food group including the “other” group; cereal, bread, muffins, chips, chocolate, fruits, vegetables, lentils, crackers, doughnuts, cheese, sandwich meat, hotdog, cookies, butter/oil, peanut butter</li> </ul> <p>Pens/ Markers</p>   |
| INSTRUCTIONS        | <p>Divide the group into five separate groups, each representing a food group and one for the “other group”.</p> <p>Provide each group with a piece of brown paper.</p> <p>Have the members place the food samples on the paper and write the food name under each sample.</p> <p>After 10 minutes, have the members remove each sample and observe whether it left a spot on the paper.</p> <p>Hold the paper up to a light source to see if the light shines through it.</p> <p>Explain that the more light showing through the more fat the food contains.</p> <p>As a group have the members determine which foods have the most and least fat.</p> |
| DISCUSSION/COMMENTS | <p>Fats are a key source of energy for healthy growth, development and activity.</p> <p>Fats help the body absorb some of the nutrients that are essential for good health such as vitamins A, D, E, and K. Everyone needs fat, but many Canadians eat more fat than they need for maintaining good health.</p> <p>Encourage lower fat choices including grain products, vegetables and fruit, dried peas, beans and lentils.</p>   |
| PROCESSING PROMPTS  | What are some examples of foods that have a lot of fat? Lower amount of fat?  |



# Fast Food Nation

*Activity Adapted from: Parkland Regional Health Authority*

|                     |  |
|---------------------|--|
| TOPIC               | Healthy Fast Food  |
| LEARNING OUTCOMES   | To be able to select a healthy balanced meal while at restaurants or at fast food places.  |
| TIME                | 30 – 45 minutes  |
| MATERIALS/RESOURCES | <p>Pens<br/>Paper<br/>Calculators<br/>Nutritional information of common fast food restaurants</p> <ul style="list-style-type: none"> <li>· Information can be downloaded from the internet as well as found at the restaurants.</li> <li>· Make sure the nutritional information contains fat content, serving sizes of foods, sugar content and calories.</li> <li>· Make sure to provide a variety of common fast food restaurants.</li> </ul> <p>Optional preparation</p> <ul style="list-style-type: none"> <li>· Taking an example of common fast foods, figure out how much fat is in that product.<br/>5g = 1 tsp of fat.</li> <li>· In a baggie or container measure out how much fat would be in that food product using butter, margarine or oil.</li> <li>· Label the baggie and show the members how much fat is in a hamburger, doughnut, fries etc.</li> </ul> |
| INSTRUCTIONS        | <p>Have the members divide their paper into seven columns (Food, Food Group, Restaurant, Serving size, Calories, Total fat (g), and Sugar (g)).</p> <p>Have the members pretend they are out with their friends on the weekend and want to stop for a bite to eat. Their task is to select a healthy balanced meal that includes all four food groups.</p> <p>Using the restaurant menu and keeping in mind the nutritional information choose a meal.</p> <p>Add up the totals and determine how many teaspoons of fat and sugar you would be eating in one meal.</p> <ul style="list-style-type: none"> <li>· 5 g = 1 tsp of fat</li> <li>· 5 g = 1 tsp of sugar</li> </ul> <p>As a visual effect, show the members the bags of fat and how much fat they are eating with common foods.</p>  |
| DISCUSSION/COMMENTS | Life can be rushed and it is more convenient to stop at a fast food restaurant. Discuss options and ways to eat healthier at fast food restaurants. Discuss “fast food” such as yoghurt, granola bars, trail mix, pre-washed vegetables and fruits.  |
| PROCESSING PROMPTS  | <p>Do you think all fast food is unhealthy?</p> <p>Brainstorm a list of healthy fast foods you could eat at fast food restaurants.</p>   |

## How Sweet It Is

*Activity Adapted from: Parkland Regional Health Authority*

|                     |  |
|---------------------|--|
| TOPIC               | Sugar Content in Common Beverages  |
| LEARNING OUTCOMES   | To demonstrate the amount of sugar contained in beverages that are commonly consumed by members.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | <p>Sugar cubes</p> <p>Clear plastic cups that hold 1 cup (250 mL) of liquid</p> <p>Marker</p> <p>Measuring cups</p> <p>Assortment of common beverages</p> <ul style="list-style-type: none"> <li>• Examples water, milk, chocolate milk, 100% unsweetened orange juice, iced tea, 100% unsweetened apple juice, Kool-Aid™, SunnyD™, Cola, Sprite™, or Tang T™</li> <li>• For Slurpees™, collect the cup sizes rather than bringing in the beverage.</li> </ul>   |
| INSTRUCTIONS        | <p>Have the members measure out sugar cubes into the plastic cups (give them a list of sugar that needs to be measured without showing the beverage it belongs to).</p> <ul style="list-style-type: none"> <li>• 5 g of sugar = 1 tsp of sugar = 1 sugar cube</li> <li>• Refer to table (sugar content of common beverages)</li> </ul> <p>Have the members pour out 1 cup (250 mL) of each beverage into individual plastic cups (give them a list of drinks to be measured without showing the sugar content).</p> <p>Using the marker, have the members write on the cup what beverage is in it and how much sugar is in the cups with the cubes.</p> <p>Have the members match up the sugar cubes to the beverages.</p> <p>Have the members put the drinks in order of sweetness, from “not sweet” to “very sweet”.</p> |
| DISCUSSION/COMMENTS | <p>Studies have shown a link between sugar and tooth decay. The longer the teeth are in contact with sugar, the greater the risk of tooth decay. This includes sugar found in beverages, which wash the teeth with sugar. Discuss the amount of sugar in beverages such as milk and juice and that those beverages contain other important nutrients; milk contains calcium, protein and vitamin D, 100% juice also contains folic acid, vitamin C, potassium and other trace vitamins and minerals. Soft drinks and other sweetened beverages may only contain sugar, colour and flavour, and dark coloured soft drinks and iced tea often contain caffeine. Even though beverages have pictures of fruit on them, it does not mean they contain 100% fruit juice!</p>  |
| PROCESSING PROMPTS  | <p>Where do common beverages fall under the Canada’s Food Guide?</p> <p>What should you be looking for in a beverage?</p> <p>What are some beverages that would be a better alternative to sugary drink?</p>   |

**Sugar Content of Common Beverages**

| Beverage                      | Portion          | Tsp/Sugar Cubes |
|-------------------------------|------------------|-----------------|
| Water                         | 1 cup (250 mL)   | 0               |
| Milk                          | 1 cup (250 mL)   | 3               |
| 100% Unsweetened Orange Juice | 1 cup (250 mL)   | 6               |
| Chocolate Milk                | 1 cup (250 mL)   | 6               |
| Ice Tea                       | 1 cup (250 mL)   | 6               |
| 100% Unsweetened Apple Juice  | 1 cup (250 mL)   | 7               |
| Tang™ Orange                  | 1 cup (250 mL)   | 8               |
| Sunny D™ Orange               | 1 cup (250 mL)   | 8               |
| Kool aid™                     | 1 cup (250 mL)   | 8               |
| Cola                          | 1 can (355 mL)   | 9               |
| Sprite™                       | 1 can (355 mL)   | 9               |
| Slurpee™                      | 16 oz            | 10              |
|                               | 22 oz            | 15              |
|                               | 32 oz            | 20              |
| Double Big Gulp™              | 8 cups (2000 mL) | 50              |

Note: 5g of sugar = 1 tsp of sugar = 1 sugar cube

## Livin' it Up! Bingo

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*Activity Adapted from: Livin' it Up!*

|                     |  |
|---------------------|--|
| TOPIC               | "Eating Well with Canada's Food Guide" Recommendations   |
| LEARNING OUTCOME    | To acknowledge healthy eating patterns.  |
| TIME                | 10 minutes   |
| MATERIALS/RESOURCES | Copies of the bingo card<br>Pens   |
| INSTRUCTIONS        | <p>Hand out a copy of the bingo cards (included on next page) and a pen to each of the members.</p> <p>Have the members find other members in the group that have completed these tasks and get them to write down their initials in the square.</p> <p>The members may only sign one box. Depending on the number of members they may need to sign more than once.</p> <p>The first person to make a vertical, diagonal, or horizontal line wins.</p> |
| DISCUSSION/COMMENTS | Each of the squares represent a recommendation of Eating Well with Canada's Food Guide.  |
| SUGGESTION          | You can alter the bingo card for different topics or focus on one food group only.   |
| PROCESSING PROMPTS  | <p>Do you think it would be hard to meet all the recommendations outlined in Canada's Food Guide?</p> <p>What are some of the guidelines recommended by Canada's Food Guide?</p> <p>What are some guidelines you follow?</p>   |

## Livin' it Up! Bingo

|  |  |   |  |   |
|--|--|---|--|---|
| Drank a glass of milk today                    | Participated in physical activity in the past week | Tried a new recipe with your family last week               | Drank at least 6 cups of water yesterday                 | Ate baked or grilled chicken in the past week         |
| Tried whole wheat pasta last week              | Added bran to a meal in the past week              | Had a meal with friends or family this week                 | Tried a calcium-enriched food product last week          | Added extra vegetables to any recipe last week        |
| Ate a dark green or orange vegetable last week | Ate whole wheat bread in the past week             | Ate fresh fruit as a dessert in the past week               | Ate a bowl of yoghurt last week                          | Used Canada's Food Guide while grocery shopping       |
| Ate fish or tuna once last week                | Tried a new recipe in the past week                | Participated in physical activity more than twice last week | Trimmed off excess fat while preparing meat              | Ate a meal with beans and vegetables in the past week |
| Went for a walk yesterday                      | Followed Canada's Food Guide for one day last week | Ate more than 5 servings of fruits and vegetables yesterday | Chose whole grains over of white bread or rice last week | Tried a vegetarian dish last week                     |

# You Are What You Eat

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*Activity adapted from: Food For Thought*

|                     |   |
|---------------------|---|
| TOPIC               | Food Choices  |
| LEARNING OUTCOMES   | To identify factors that influence your food choices.   |
| TIME                | 45 minutes  |
| MATERIALS/RESOURCES | Roll of newspaper print<br>Markers, pens, crayons, pencil crayons<br>Scissors<br>Glue<br>Food magazines, grocery store flyers   |
| INSTRUCTIONS        | <p>Have the members take turns lying on the paper while another member draws a general outline of their body.</p> <p>Have the members draw or cut out pictures of their favourite foods.</p> <p>Have the members paste the foods inside their body outlines.</p> <p>Have the members write down where they normally eat the food, who they normally eat this food with, and how it makes them feel.</p> <p>Have the members present and discuss their food choices.</p> |
| DISCUSSION/COMMENTS | There are many factors that influence food choices such as taste, family behaviour, leaders/coaches, school policies, media, and peer pressure. This activity gives members a chance to take a look at their favourite foods and identify some of the factors that influence their food choices.  |
| PROCESSING PROMPTS  | <p>What are the factors that influence your food choices?</p> <p>What are positive influences on your food choices?</p> <p>What could have negative influences on your food choices?</p>  |

# How Balanced is My Diet?

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*Activity Adapted from: Chews Wisely*

|                     |   |
|---------------------|---|
| TOPIC               | Balance and Moderation  |
| LEARNING OUTCOME    | To demonstrate the importance of balance and moderation by examining the members' eating patterns.  |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | Eating Well with Canada's Food Guide<br>For copies please order from Health Canada<br>Phone: 1 800 O-Canada (1 800 622-6232)<br>Online: <a href="http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html">http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index_e.html</a><br>Paper<br>Pens  |
| INSTRUCTIONS        | <p>Part 1</p> <ul style="list-style-type: none"><li>· Have the members keep a food diary of everything they eat or drink for three days (preferably 2 week days and 1 weekend day) prior to the next project meeting.</li></ul> <p>Part 2</p> <ul style="list-style-type: none"><li>· Give each member a copy of Eating Well with Canada's Food Guide along with paper and pens.</li><li>· Using the Food Guide Serving table, have the members add up and record the number of food servings they ate from each food group each day.</li><li>· Have the members compare their food consumption to the recommendations by Canada's Food Guide.</li><li>· Discuss as a group.</li></ul> <p>Part 3</p> <ul style="list-style-type: none"><li>· Have the members make a table to use as their menu planner (see the table for example).</li><li>· Have the members plan a menu for one day that follows the recommendations of Canada's Food Guide according to the amount of food servings in each of the four food groups.</li><li>· Make sure the members include enough portions from each food group but not too much from any of them using Canada's Food Guide serving recommendations.</li><li>· Discuss their menus with the group.</li></ul> |

## How Balanced is My Diet? continued

### Food Diary/Menu Planner Table Example

| Meal           | Foods Eaten          | Fruits and Vegetables | Grains | Meat and Alternatives | Milk and Alternatives |
|----------------|----------------------|-----------------------|--------|-----------------------|-----------------------|
| Breakfast      | 2 slices of toast    |                       | 2      |                       |                       |
|                | 1 cup of milk        |                       |        |                       | 1                     |
|                | 1 banana             | 1/2                   |        |                       |                       |
|                | 2 Tbsp peanut butter |                       |        |                       | 1                     |
| Lunch          |                      |                       |        |                       |                       |
|                |                      |                       |        |                       |                       |
|                |                      |                       |        |                       |                       |
| Supper         |                      |                       |        |                       |                       |
|                |                      |                       |        |                       |                       |
| Snacks         |                      |                       |        |                       |                       |
|                |                      |                       |        |                       |                       |
| Total Servings |                      |                       |        |                       |                       |

#### DISCUSSION/COMMENTS

As members become more familiar with nutrients and the health benefits of healthy eating they also become more aware of the importance of eating a balanced diet.

Discuss the importance of eating a balanced diet and what could happen if you eat too much, or not enough, from a food group over time. Discuss with the members the importance of following Canada's Food Guide recommendations when planning a meal, grocery shopping, or reading food labels.

#### PROCESSING PROMPTS

Do you think you are eating the recommended food servings from Canada's Food Guide?

Why is balance and moderation so important?

What could happen if you ate too much from one food group and not enough from another food group?



# Food Grab Bag

*Activity Adapted From: Livin' it Up!*

|                     |   |
|---------------------|---|
| TOPIC               | Label Reading and Food Choices  |
| LEARNING OUTCOME    | To understand label reading for making better food choices in the grocery store.  |
| TIME                | 20 – 30 minutes   |
| MATERIALS/RESOURCES | <p>A large box or bag</p> <ul style="list-style-type: none"> <li>· Enough empty food product packages, food labels or food pictures for each member (a variety of foods from all four food groups, fresh, frozen or canned).</li> <li>· Depending on the size of your group you may want to plan for 2 to 3 food items for each member.</li> </ul>  |
| INSTRUCTIONS        | <p>Have the members sit in a circle so that everyone can see the different products and hear one another.</p> <p>Place the food product packages, labels or food pictures into the box/bag. Have each member grab one or two items.</p> <p>Going around the circle, have each member describe their food product to the group and discuss the advantages and disadvantages to purchasing that product using the labels.</p> <p>Discuss if the product is grown locally in Canada or in their province.</p> <p>Discuss whether or not that member would buy that product – if so why or why not.</p> <p>Suggested Items:</p> <ul style="list-style-type: none"> <li>· Canned, frozen or fresh fruits and vegetables</li> <li>· Dried fruit/ pictures of fresh fruit</li> <li>· Whole wheat bread/white bread</li> <li>· Non hydrogenated/hydrogenated margarine</li> <li>· Low fat cheese/regular cheese</li> <li>· Calcium enriched products/regular products</li> <li>· Trans fat foods/with no trans fats</li> <li>· Frozen dinners</li> <li>· 100% juice/fruit cocktail</li> <li>· Milk/chocolate milk</li> <li>· Pictures of farmers markets</li> <li>· V8™ juice/Tomato juice</li> <li>· Soup/Low sodium soup</li> </ul> |
| DISCUSSION/COMMENTS | <p>The purpose of the food grab bag is to generate discussion. The members are able to see a variety of products, understand label reading and are able to make better choices in the grocery store.</p> <p>This activity can be directed to:</p> <p>A specific food group (fruits and vegetables, grains, meat and alternatives or milk and alternatives).</p> <p>Using the food packages and food pictures the members can discuss the food safety that must be followed when preparing that product.</p> <p>Food storage – where the food is stored when unopened and opened.</p> <p>Fill the grab bag with items that represent food servings.</p> <p>Examples: measuring cups/spoons, deck or cards, tennis ball, cups, bowls and plates, kitchen utensils, etc.</p>   |
| PROCESSING PROMPTS  | <p>What are things you should look for on a label when purchasing a food product?</p> <p>What are words to look for on the label that represent a healthy or non-healthy product?</p> <p>What are examples of “healthy” food choices?</p>   |

## Neon Milk

|                     |   |
|---------------------|---|
| TOPIC               | Food Choices  |
| LEARNING OUTCOMES   | To have the opportunity to explore their feelings towards certain foods.  |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | 5 small Dixie cups per member<br>Milk<br>Food colouring: blue, yellow, red, green<br>Paper<br>Pens  |
| INSTRUCTIONS        | <p>Give each member 5 Dixie cups filled with milk.</p> <p>Put a few drops of food colouring in a cup – leave one with just milk. You want to have 5 different cups at the end, all different colours.</p> <p>Have the members sit at the Dixie cups.</p> <p>Have the members taste the milk and write down how they feel about the milk and what they associate the taste to.</p> <p>Discuss their feelings of food choices with the members.</p> |
| DISCUSSION/COMMENTS | Feelings can play an important role in food choices and eating patterns. It is important for members to express the feelings about food. Members should learn to monitor their food choices and be encouraged to eat because they are hungry, not because of emotional needs.   |
| PROCESSING PROMPTS  | <p>What could cause a positive feeling toward food?</p> <p>What could cause a negative feeling toward food?</p> <p>How can eating because of feelings be a bad thing and a good thing?</p>  |

## Vitamins and Your Body

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|                     |   |
|---------------------|---|
| TOPIC               | Vitamins and Your Body  |
| LEARNING OUTCOMES   | To illustrate the vitamins and minerals that play an important role in the body.  |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | Large roll of paper<br>Crayons, markers, pencils, pens  |
| INSTRUCTIONS        | <p>Have the members lie down on the roll of paper and trace one another's body outline.</p> <p>Have each member label different parts of their body where vitamins and minerals are responsible for growth and development. Then have the members label which vitamin(s) and minerals(s) are responsible.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>· Bones and teeth – Vitamin D and Calcium</li> <li>· Hair and skin – Vitamin E</li> <li>· Eyes- Vitamin A</li> <li>· Muscles - Iron</li> </ul> <p>Have the members label a food item that would provide them with the proper vitamins and minerals needed for the proper growth and health.</p> <p>Have the members present their outlines and what vitamins and minerals are important for them.</p> |
| DISCUSSION/COMMENTS | <p>Your body is a powerful machine, capable of doing all sorts of things by itself. But one thing it can't do is make vitamins. That's where food comes in. Your body is able to get the vitamins it needs from the foods you eat because different foods contain different vitamins.</p> <p>Each vitamin and mineral plays an important role in the body for proper growth, development and overall health.</p>  |
| PROCESSING PROMPTS  | <p>Where do vitamins and minerals come from?</p> <p>What do vitamins and minerals do?</p> <p>What vitamins and minerals do we need for proper health?</p>   |



# Food Safety

## Soapy Solutions

*Activity Adapted from: Fight Bac! Education Program*

|                     |   |
|---------------------|---|
| TOPIC               | Importance of Hand-washing and Food Safety  |
| LEARNING OUTCOMES   | To reinforce the importance of hand-washing and the relationship between personal habits and food safety.   |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | <p>Cooking oil<br/>           Ground cinnamon<br/>           Access to a sink<br/>           Measuring spoons (5 mL and 15 mL)<br/>           Hand soap<br/>           Paper towels<br/>           Paper/pens<br/>           Stop watch/clock or watch</p>  |
| INSTRUCTIONS        | <p>If possible work in groups of 5. One person to record the observations and results, one person to collect the materials and be the timekeeper, the three other members to conduct the investigation. All members observe the three hand-washing methods. If you have a small group, conduct the experiment altogether and ask volunteers to do each of the parts.</p> <p>The three members in each group pour 15mL(1 Tbsp) of cooking oil all over their hands until completely coated, and then sprinkle 5mL of cinnamon on their hands and rub around until its evenly distributed.</p> <p>The cinnamon will represent the bacteria.</p> <ul style="list-style-type: none"> <li>• Member 1 – wash hands with cold water and no soap for 20 seconds.</li> <li>• Member 2 – wash hands with warm water and no soap for 20 seconds.</li> <li>• Member 3 – wash hands with warm water and soap for 20 seconds.</li> </ul> <p>Have the members observe and record the results and discuss their findings with the other groups.</p> <p>Exercise caution when using hot water!</p> |
| DISCUSSION/COMMENTS | <p>The oil on the member's hands simulates the natural oils in the skin to which bacteria cling. The soap and the rubbing action are needed to remove the oils and the bacteria that the cinnamon represents. Washing with soap and the act of rubbing briskly for 20 seconds is the most effective way to remove bacteria.</p> <p>Remind members of the method used for estimating 20 seconds by singing a song ("Happy Birthday" or "Twinkle, Twinkle Little Star").</p> <p>Discuss the method of hand-washing that removed the most bacteria and the least bacteria.</p>   |
| PROCESSING PROMPTS  | <p>When are times when you should wash your hands?</p> <p>What might happen if you used only cold water and no soap and then went and made a sandwich?</p> <p>What song or poem do you know that is 20 seconds that you could remember when washing your hands?</p>   |

## Where it Goes Relay

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*Activity Adapted from: Parkland Regional Health Authority*

|                     |   |
|---------------------|---|
| TOPIC               | Food Storage Safety   |
| LEARNING OUTCOMES   | To demonstrate the importance of proper storage of foods and ingredients.   |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | Grassy or large open area   |
| INSTRUCTIONS        | <p>Preparation</p> <ul style="list-style-type: none"> <li>· 2 plastic garbage bags</li> <li>· Collect food models, food pictures, food packages or food containers and containers for hand soap, detergent, cleaners etc.</li> <li>· Try to use ingredients that were used in the project meetings and that the members will be familiar with.</li> <li>· Try to include a variety of fresh, frozen and canned items.</li> <li>· You may want to save containers and packaging from weeks prior to make preparation easier.</li> </ul> <p>Construction paper</p> <ul style="list-style-type: none"> <li>· Create signs to identify various storage areas of the kitchen; refrigerator, counter, under the sink, beside the sink, by the stove, cupboard, freezer.</li> </ul> <p>Fill the two grocery bags with an equal number of food items (at least one per member).</p> <p>Place the signs of the various storage areas around the grassy area.</p> <p>Divide the group into 2 relay lines, each with a grocery bag.</p> <p>Each member grabs a item from the grocery bag.</p> <p>On the count of three the first person in line must “put the item in the appropriate storage spot” and comes back and tags the next person.</p> <p>Activity continues until the first team finishes putting away the items correctly.</p> |
| DISCUSSION/COMMENTS | Discuss what are good and poor storage places, and what makes a good storage place (temperature, humidity, light). Discuss the importance of the role of the individual in ensuring safe food storage. Discuss why proper storage of food ingredients is important and what may happen if food is not stored properly (foodborne illness, cross contamination etc).   |
| PROCESSING PROMPTS  | <p>Why is food storage so important?</p> <p>What could happen if there is a change in the storage place or if a food package is left open?</p> <p>What makes a good storage place?</p>  |

## Safely Separate

*Activity Adapted from Fight Bac! Education Program*

|                     |  |
|---------------------|--|
| TOPIC               | Cross Contamination  |
| LEARNING OUTCOME    | To demonstrate cross contamination and how bacteria can spread from one food product to another and the importance of safe food handling procedures.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Two clean sponges (yellow colour) cut into a chicken leg shape<br>Red coloured water based craft paint<br>Paint brush<br>Cutting board<br>Cucumber<br>Light coloured plate<br>A serrated knife<br>Paper/pens<br>Newspaper to cover the table   |
| INSTRUCTIONS        | <p>Separate members into small groups of three to five.</p> <p>Have groups dampen both sponges with water. Set aside one sponge to represent “cooked chicken”.</p> <p>The other sponge represents “raw chicken”. Paint both sides of the sponge with the red paint. Use only enough paint to cover the surface of each side. The red paint represents the juice of the chicken that may have been contaminated with Salmonella.</p> <p>Place the painted sponge “raw chicken” on the cutting board and cut it in half with the knife.</p> <p>Move the “raw chicken” onto the plate, do not wash the cutting board.</p> <p>Cut a slice of cucumber using the same knife and cutting board.</p> <p>Place the “cooked chicken” (clean sponge) onto the plate with the “raw chicken”.</p> <p>Have the members write down the observation of the red paint.</p> |
| DISCUSSION/COMMENTS | <p>Cross contamination is the scientific term for how bacteria can spread from one product to another.</p> <p>This activity simulates how easy it can be to cross contaminate food during storage and preparation. Discuss the importance of proper food handling and how to fight bacteria. Discuss the importance of washing hands, utensils and surfaces with soap and hot water before, after and during food preparation.</p>   |
| PROCESSING PROMPTS  | <p>What are some ways to safely handle raw food products?</p> <p>What is the best way to get rid of bacteria on a cutting board? Knife? Hands?</p> <p>What could happen if someone ate food products that contained bacteria such as Salmonella?</p>   |



## Don't get Bugged by a Foodborne Illness

*Activity Adapted from: Don't Get Bugged by a Foodborne Illness*

|                     |  |
|---------------------|--|
| TOPIC               | Foodborne Illnesses and Safe Food Handling Practices   |
| LEARNING OUTCOMES   | To describe foodborne illnesses and the importance of food safety practices.   |
| TIME                | 30-40 minutes  |
| MATERIALS/RESOURCES | Blank paper<br>Pens/Papers<br>Copy of quiz questions and answers for the facilitator   |
| INSTRUCTIONS        | Hand out a piece of paper and a pen to each member.<br>Have the members draw a 4 x 4 table (four columns down and four rows across).<br>Have the members number the squares, in order, 1 – 16. |

|    |    |    |    |
|----|----|----|----|
| 1  | 2  | 3  | 4  |
| 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |

Each player can check off one square of their choice as a "free" space.

The leader will then read all 16 true and false questions in order.

The members must mark "T" true or "F" false in the square corresponding with the questions number.

After all the questions are read, the leader reads and discusses the answers and the members circle the number in each square that they answered correctly.

Four circles across, down, or diagonally in a row "wins". A player can win in more than one row.

|                     |  |
|---------------------|--|
| DISCUSSION/COMMENTS | Foodborne illness is caused by eating food that has been contaminated. This usually happens because of improper handling during processing, packaging, transporting, storing or preparing in the home. Encourage members to ask questions and discuss the answers. Feel free to add, your own questions about food safety. |
| PROCESSING PROMPTS  | What is a foodborne illness?<br>How can you get a foodborne illness?<br>How do we play a role in preventing foodborne illnesses?   |

## True and False Questions

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Food containing bacteria that cause foodborne illness always smell bad, taste bad or look bad.

**FALSE:** Most bacteria that cause foodborne illness cannot be seen, smelled or tasted. Some symptoms of a foodborne illness are nausea, vomiting, cramps and diarrhea. What people thought was the flu might have actually been a foodborne illness. Foods that bacteria like best include high protein foods such as milk and dairy products, eggs, meat, poultry and seafood.

It is safe to prepare raw greens for a salad on a cutting board previously used to cut raw chicken if the cutting board had been rinsed with water.

**FALSE:** Uncooked meat juices may contain harmful bacteria that could lead to foodborne illness. The cutting board must be cleaned with hot soapy water followed by a hot water rinse before cutting other foods, especially foods served raw. This prevents cross contamination.

Cool leftover foods completely before putting them in the refrigerator.

**FALSE:** Put leftovers in the refrigerator or freezer promptly after eating. If food is left at room temperature for over two hours, bacteria can grow to harmful levels and the food may no longer be safe. Put them in a shallow dish so they can cool faster. For greatest safety, eat leftovers in a day or two.

The mayonnaise in a salad is the most likely to cause a foodborne illness.

**FALSE:** The high acid content of store bought mayonnaise may actually inhibit bacterial growth. Other salad ingredients are usually the problem. Rather than worry about the mayonnaise, it is more important to use good food safety practices in handling other ingredients such as potatoes, tuna, chicken and eggs. Make sure to keep salads cool and out of the danger zone between 4°C (40°F) to 60°C (140°F).

Foods from a dented can may contain harmful bacteria that cause foodborne illness.

**TRUE:** Beware of eating foods in dented cans, especially if the dent in the can is on a seam. Do not taste. Discard without opening the can. Rusted cans may also allow bacteria to enter. Bulging ends may mean harmful bacteria growing. When in doubt, toss it out!

As long as ground meat is cooked brown on the outside, it is safe to eat.

**FALSE:** It is especially important that ground meat, where bacteria can spread through the meat during processing, is cooked thoroughly. Cooked out juices should have no trace of pink when the meat is cut. Avoid cross contamination between raw and cooked meat and poultry. The best way to check if your meat is done is by using a meat thermometer.

A temperature of 4°C or lower is recommended for your refrigerator.

**TRUE:** A refrigerator temperature of 4°C (40°F) or lower slows the growth of bacteria. Keep your freezer at -18 °C (0°F). Freezing does not kill bacteria. Freezing will stop most bacteria growth so foods keep longer than at refrigeration temperature. Check the temperature of your refrigerator and freezer regularly.

A temperature of 60°C (140°F) or higher is recommended for holding hot foods.

**TRUE:** Keeping perishable foods for more than two hours in the "danger zone" 4°C (40°F) to 60°C (140°F) is a leading cause of foodborne illness. Hold hot foods at 60°C (140°F) or higher and cold foods at 4°C (40°F) or lower until serving time.

It is safe to thaw meat on the kitchen counter.

**FALSE:** Do not thaw meat, poultry or fish on the kitchen counter. It is best to plan ahead for slow safe thawing in the refrigerator. Small items may thaw overnight in the fridge. Larger foods may take longer – allow approximately one day for each 5 pounds (2.27 kg) of weight.

Melons that have been cut open and left at room temperature for more than a couple of hours may cause foodborne illness.

**TRUE:** Bacteria from the soil may stick to the surface of a melon and then be transferred to the fruit through the knife when it is cut. As a general rule, wash fruits and vegetables with tap water (no soap) before eating. Keep cut produce covered and refrigerated.

Hard boiled eggs may be stored safely at room temperature if left in their shell.

**FALSE:** While hard boiling eggs will kill bacteria – cooking may cause hard to see cracks in the shell that allow bacteria to enter. Once inside the egg, these bacteria can grow rapidly and cause illness. Avoid keeping hard boiled eggs out of the refrigerator for more than two hours and eat within a week.

Most foods that contain mold are safe to eat if all the mold is removed.

**FALSE:** Most moldy foods should be thrown away. Where there is mold growth, bacteria are probably growing too.

You can freeze a used marinade and then use later if you boil it the next time.

**FALSE:** Marinades should be discarded after use because they may contain harmful bacteria. Do not pour leftover marinade on partially or fully cooked meat, poultry or chicken.

It is safe to stuff a turkey or chicken the day before it is roasted.

**FALSE:** Stuffing a turkey or chicken the day before it is cooked is not recommended. The cavity of the bird insulates the stuffing from the cold temperature of the refrigerator and can keep the stuffing in a temperature range that encourages bacterial growth. For best quality and safety, cook the stuffing outside the turkey or chicken.

Refrigerated ground meat can be used within one to two days.

**TRUE:** For greatest safety, use ground meat within one to two days if it is being stored in the refrigerator. Freeze ground meat for longer storage immediately after purchase.

It is safe to eat a perishable food that has sat out overnight, such as pizza, if it is heated.

**FALSE:** Some bacteria may produce a harmful, heat resistant toxin that heating won't destroy. Never leave perishable food out of the refrigerator more than two hours.

## Quick Chilling Activity

*Activity Adapted from: Be Food Safe*

|                     |  |
|---------------------|--|
| TOPIC               | Chilling Foods Properly  |
| LEARNING OUTCOMES   | To illustrate the importance of properly chilling food to prevent foodborne illnesses.   |
| TIME                | 45 minutes to 1 hour   |
| MATERIALS/RESOURCES | <p>10 cups (2.5 L) of pretend gravy: 1 gallon (4 L) of water with 1 cup (250 mL) cornstarch with added food colouring to make it look like gravy</p> <p>3 accurate food thermometers</p> <p>6 containers (plastic or glass)</p> <ul style="list-style-type: none"> <li>· 2 identical containers</li> <li>· 2 shallow containers</li> <li>· 2 deep containers</li> </ul> <p>Access to a fridge or 3 coolers filled with ice packs</p> <p>Pens</p> <p>Paper</p> <p>Clock/watch</p> <p>Stove or microwave</p> <p>Pot or microwave safe dish</p>   |
| INSTRUCTIONS        | <p>As a group, heat the pretend gravy to a boil.</p> <p>Divide the main group into three smaller groups.</p> <p>Give each group a paper, pens and a thermometer.</p> <p>Have the members divide their paper into three columns: time, container #1 and container #2.</p> <p>Group 1</p> <ul style="list-style-type: none"> <li>· Use two containers that are identical.</li> <li>· Pour 2 cups (500 mL) of the gravy into each of the containers.</li> <li>· Be careful when handling hot liquids!</li> <li>· Record the time and the initial temperature of the hot food.</li> <li>· Put one container into the fridge/cooler and leave the other at room temperature.</li> <li>· Every 10 minutes, for 30 minutes, record the time and the new temperature of the food.</li> <li>· Have the group be prepared to report their findings to the group after 30 minutes.</li> </ul> <p>Group 2</p> <ul style="list-style-type: none"> <li>· Use two containers, one shallow and one deep.</li> <li>· Pour 2 cups (500 mL) of the gravy into each of the containers.</li> <li>· Record the time and the initial temperature of the hot food.</li> <li>· Put both containers into the fridge/cooler.</li> <li>· Every 10 minutes, for 30 minutes, record the time and the new temperature of the food.</li> <li>· Have the group be prepared to report their findings to the group after 30 minutes.</li> </ul> <p>Group 3</p> <ul style="list-style-type: none"> <li>· Use two containers, one shallow and one deep.</li> <li>· Pour 2 cups (500 mL) of the gravy into each of the containers.</li> <li>· Record the time and the initial temperature of the hot food.</li> <li>· Leave both containers on the counter at room temperature.</li> <li>· Every 10 minutes, for 30 minutes, record the time and the new temperature of the food.</li> <li>· Have the group be prepared to report their findings to the group after 30 minutes.</li> </ul> |

## Quick Chilling Activity continued

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|                     |  |
|---------------------|--|
| DISCUSSION/COMMENTS | Discuss the importance of getting your food chilled as quickly as possible. Members should notice that the temperature of the food dropped the fastest when placed in a shallow pan and refrigerated. Discuss the importance of the danger zone, and what could happen if foods are left out for more than two hours. Discuss how bacteria will begin to grow at certain temperatures and not chilling properly could lead to foodborne illnesses. |
| PROCESSING PROMPTS  | How do you properly chill food?<br>What is the danger zone for food?<br>What should you do with food after cooking to prevent foodborne illness?   |

## Soap: To use or not to use!

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*Activity Adapted from: Be Food Safe*

|                     |   |
|---------------------|---|
| TOPIC               | Importance of Soap  |
| LEARNING OUTCOMES   | To enforce the importance of soap in hand-washing and cleaning of kitchen utensils and surfaces to get rid of unwanted bacteria.  |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | <p>Metal pan</p> <p>Dark food colouring (red, green, blue)</p> <p>A small dish full of dish detergent</p> <p>A small dish full of hand soap</p> <p>Toothpicks</p> <p>Enough milk to fill the bottom of the pan</p>  |
| INSTRUCTIONS        | <p>Have the members pour the milk into the metal pan, just enough to fully cover the bottom.</p> <p>Have the members add a few drops of food colouring into the pan.</p> <ul style="list-style-type: none"> <li>· The food colouring represents bacteria on your hands and kitchen area before, after and during food preparation.</li> </ul> <p>Have a member stick a clean toothpick into the food coloured milk.</p> <ul style="list-style-type: none"> <li>· Note that nothing will happen and some bacteria may even stick to the toothpick.</li> </ul> <p>Have a member take a clean toothpick and dip it into the dish detergent.</p> <p>Dip the toothpick into the food coloured milk.</p> <ul style="list-style-type: none"> <li>· The food colouring should immediately move away from the toothpick, leaving a white area surrounding the toothpick.</li> </ul> <p>Repeat this process with the hand soap.</p> |
| DISCUSSION/COMMENTS | This activity demonstrates how important using soap is and that regular washing with soap is needed to remove bacteria from skin and your kitchen area. Discuss the importance of hand-washing for 20 seconds with warm water and soap, before, after and during meal preparation.  |
| PROCESSING PROMPTS  | <p>Why is soap important?</p> <p>What are the guidelines for proper hand-washing?</p> <p>What would happen if we didn't use soap or warm water?</p>   |

## What's a Perishable Food?

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*Activity Adapted from: Be Food Safe*

|                     |  |
|---------------------|--|
| TOPIC               | Proper Storage for Perishable and Non-perishable Food Items  |
| LEARNING OUTCOMES   | To demonstrate the proper storage procedures of perishable and non-perishable food items.  |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Grocery store flyers/food magazines<br>Scissors<br>Three containers labelled "cupboard", "fridge" and "freezer"  |
| INSTRUCTIONS        | <p>Have the members cut out some of their favourite foods from the flyers/magazines (approximately five each depending on the size of the group).</p> <p>Place the three containers labelled "cupboard", "fridge" and "freezer" on the table.</p> <p>One at a time, have the members come up and place their food into the correct storage place.</p> <p>After all of the members are finished, go through the containers and discuss their reasons.</p> <p>You may also want to discuss when it is appropriate to freeze foods to prevent foodborne illnesses. Example: Ground beef needs to be frozen if not being used up in 1 to 2 days.</p> |
| DISCUSSION/COMMENTS | <p>Foods are classified (into perishable and non-perishable) based on their stability during storage. Perishable foods spoil more easily if not refrigerated and stored properly. Examples of perishable foods are meat, poultry, fish, dairy products, cooked vegetables and mixed dishes that contain any of these foods.</p> <p>Discuss the importance of the danger zone and what could happen if perishable foods are left out or not stored properly. Discuss the importance of proper storage of both perishable and non-perishable food items.</p>   |
| PROCESSING PROMPTS  | <p>What is the difference between non-perishable and perishable food items?</p> <p>How do you properly store perishable food items?</p> <p>How do you properly store non-perishable food items?</p>  |

## Food Safety Detective

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*Activity Adapted from: Fight Bac! Education Program*

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|---------------------|--|
| TOPIC               | Food Safety  |
| LEARNING OUTCOMES   | To identify and apply the member's food safety knowledge to real life situations.  |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Paper<br>Pens<br>Copy of "Perils of the Picnic" case   |
| INSTRUCTIONS        | Give each members a copy of the "Perils of the Picnic" reading, paper and a pen.<br>Split the group into smaller groups depending on the size.<br>Have the members read the case. Acting as detectives have the members point out the potential food safety concerns.<br>Have the members write out the food safety concerns as well as a solutions on how to fix them and then report their findings to the group.  |
| DISCUSSION/COMMENTS | This is a great activity to do with the members after reviewing topics on food safety guidelines as it reviews key principles such as chill, cook, clean and separate.<br>Discuss what the characters in the story did or did not do in regards to food safety and what the members would have done if in that situation. Discuss what might happen to these characters if they begin to eat the food. Discuss with the members how everyone plays a role in food safety to prevent foodborne illnesses. |
| PROCESSING PROMPTS  | What are some guidelines you should follow to prevent foodborne illness?<br>What could potentially happen if you did not follow food safety guidelines?<br>Whose role is it to prevent foodborne illness and promote food safety?  |



## Perils at the Picnic Scenario Reading

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1. Tom gets a call from his pals to meet them in the park down the street to play ball. They tell him to bring food for a picnic lunch so they can stay the whole day. One of his buddies, Nicki, is bringing her older brother along to help with the barbeque. The group can't wait to get to the park early so they can start playing before it gets too hot.
2. Tom looks in the fridge and finds some potato salad his mom made during the week. He also finds some cold cuts, leftover turkey, cheese, a tomato, an apple and some grapes in the drawer. He wraps the meat and cheese in plastic wrap and packs them in a big paper bag with some paper plates, bread, the fruit, tomato and a knife and fork. Just before he leaves he checks the freezer and finds three hamburger patties wrapped in plastic – he throws them in the bag too.
3. As Tom runs out the door, he tosses his baseball and glove in the bag and grabs his bat. When he gets to the park, several of his friends are already there. Nicki's older brother, George, is setting up a grill for cooking burgers.
4. Tom and his friends claim the last picnic table – a great spot in the sun! Tom grabs his baseball and glove out of the food bag and leaves the bag on top of the table – this way the hamburger will be thawed enough to cook by lunchtime.
5. When it's time to break for lunch, Tom's friends go to the washroom to wash up while Tom unpacks the picnic food. The hamburgers are dripping on the outside but still frozen on the inside and stuck together, so Tom sets them on a paper plate and uses the knife and fork he brought to pry them apart. When they are almost apart, he uses his fingers to separate them the rest of the way and leaves them on the plate so they can thaw a bit more before he takes them to the grill.
6. Tom then sets the cheese and the tomato on the plate and slices them to use on top of the burgers. That way everything will be ready to put on top of the burgers!
7. When the other kids return, they brush off the surface of the picnic table with their hands and lay the bread out to make a couple of sandwiches from the cold cuts, cheese and turkey. Nicki's brother starts grilling the burgers.
8. Once the burgers have turned brown on the outside, Tom and his friends add cheese to the top of the burgers. George says he wants to cook them more, but they insist that they love to eat them rare.
9. Retrieving the fork used to separate the frozen burgers, they serve themselves potato salad. Using the knife, they cut up the apple, which had been sitting on top of the picnic table and share it along with the grapes, which had also been sitting out on the top of the picnic table.

# Yeast Balloon Blow-up

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*Activity Adapted from: Fight Bac! Education Program*

|                     |   |
|---------------------|---|
| TOPIC               | Bacteria Growth   |
| LEARNING OUTCOMES   | To demonstrate how bacteria growth can be encouraged or inhibited under certain environments.   |
| TIME                | 1 hour and 30 minutes   |
| MATERIALS/RESOURCES | 2 balloons<br>2 small plastic pop bottles<br>3 glass containers large enough to hold at least 3 cups (750 mL) of liquid and the pop bottle<br>Liquid measuring cup<br>Mixing spoon<br>1 package of dry yeast<br>50 mL of sugar<br>Food thermometer<br>2 cups (500 mL) of room temperature water (21°C-70°F)<br>2 cups (500 mL) of warm water (43°C/109°F to 49°C/120°F)<br>2 cups (500 mL) of ice water (below 4°C/40°F)  |
| INSTRUCTIONS        | <p>If you have a large group you may want to assign volunteers for each step or have small groups each completing the experiment.</p> <p>Have the members fill a container with 2 cups (500 mL) of room temperature water (make sure to use the food thermometer to check).</p> <p>Have the members dissolve the sugar and yeast into the room temperature water. Mix well.</p> <p>Have the members pour half of the solution into each of the pop bottles.</p> <p>Quickly stretch a balloon over the top of each of the pop bottles.</p> <p>Place 1 bottle into a container – add 2 cups of warm water in the bottom of the container – make sure it covers the yeast solution.</p> <p>Measure the temperature with the thermometer.</p> <p>Place 1 bottle into a container – add 2 cups of ice cold water in the bottom of the container – make sure it covers the yeast solution.</p> <p>Measure the temperature with the thermometer.</p> <p>Have the members observe the balloons at 5, 10 and 30 minutes.</p> <p>Record their findings, observations and any predictions.</p> <p>Discuss findings with the group.</p> |

## Yeast Balloon Blow-up continued

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### DISCUSSION/COMMENTS

Yeast is a good micro-organism to show how bacteria can multiply, as it has similar properties to bacteria.

The cold water represents bacteria in the fridge, which grows considerably slower.

The warm water represents bacteria growth when food is left out in the danger zone.

As the yeast grows in these optimal conditions, it begins to bubble and create a gas, which causes the balloon to inflate.

The sugar solution acts as food for the bacteria, making the growth more rapid. However, too much sugar will actually inhibit the growth of bacteria.

### PROCESSING PROMPTS

How do we prevent bacteria from growing?

What is the danger zone, and what does it mean for food?

What is the best way to chill foods?

## My Food Safety Practices

*Activity adapted from: Food Safety Can Be Fun*

|                     |  |
|---------------------|--|
| TOPIC               | Personal Food Safety Practices   |
| LEARNING OUTCOMES   | To analyze and discuss the member's own personal food safety practices.  |
| TIME                | 30 to 40 minutes   |
| MATERIALS/RESOURCES | Pen<br>Paper   |
| INSTRUCTIONS        | <p>Hand out a piece of paper and pen to each member.</p> <p>Have the members divide their paper into five columns.</p> <p>In the first column have the members write down all the food items they ate the day before.</p> <p>In the second column put an "X" beside any food that has potential to cause a foodborne illness.</p> <p>In the third column have the members go through their food list and put a check mark besides the foods that they had control of preparing.</p> <p>In the fourth column have the members write down how the food was prepared.</p> <p>In the fifth column have the members write down any changes they would make in preparation to prevent foodborne illnesses.</p> |

| Food List                                | Foodborne Illness | Control | Preparation  | Changes                        |
|--|-------------------|---------|--|--------------------------------|
| Tuna sandwich<br>(Tuna, mayo,<br>celery) | X                 | Yes     | Made lunch<br>night before<br>and then went<br>to school | Add a ice pack<br>to lunch bag |
| Milk                                     | X                 | Yes     | Froze over night   |                                |

As a group, have the members discuss some of the foods on their list – one food they prepared using safe handling practices, and one food item that they would change to practice better food safety guidelines.

|                     |   |
|---------------------|---|
| DISCUSSION/COMMENTS | Discuss how governments, producers, plant operators and food organizations take great care through regulations and inspections to ensure that the food we purchase in grocery stores and eat at restaurants meet the required health and safety standards. Discuss from the point of purchase, it is up to each of us to store, cook, serve and chill leftovers in a safe manner. |
| PROCESSING PROMPTS  | <p>What are some food safety guidelines that you follow?</p> <p>What is so important about food safety principles?</p> <p>Whose role is it to prevent foodborne illness and promote food safety?</p>  |

## Wrap It Up!

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|                     |  |
|---------------------|--|
| TOPIC               | Food Storage   |
| LEARNING OUTCOMES   | To determine what types of storage containers/wrapping is the best for food quality.   |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | Different wrappings and storage containers<br>Plastic wrap, aluminum foil, wax paper, freezer bags, sandwich bags, plastic containers – enough for one per member (2 depending on the number of members)   |
| INSTRUCTIONS        | Have the members sit in a circle or around the table.<br>Give each member a different type of food packaging.<br>One at a time, have the members defend what storage method is the best for the food quality – some examples will have more than one answer. <ul style="list-style-type: none"> <li>· Plastic containers</li> <li>· Fridge: marinating meats</li> <li>· Cupboard: dry ingredients</li> </ul> Discuss the storage methods as a group. |
| DISCUSSION/COMMENTS | Different foods require different packaging to maintain their quality of freshness. If not stored in proper packaging it leaves the opportunity for growth of mold and bacteria that could cause foodborne illnesses.<br>Proper food storage is important for maintaining food quality, reducing food spoilage and waste and preventing foodborne illness.<br>Discuss proper food storage for the refrigerator, freezer and pantry.                  |
| PROCESSING PROMPTS  | Why is proper food storage so important?<br>What could happen if food is not stored properly?<br>What is proper food storage equipment?  |



# Fundamentals

## Rating Recipe Formats

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*Activity Adapted from: Utah Education Program*

|                     |   |
|---------------------|---|
| TOPIC               | Rating Recipes  |
| LEARNING OUTCOMES   | To learn how to recognize good recipes.   |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | Paper<br>Pens<br>Enough recipe samples for the groups<br>Samples of different formats/styles of recipes (good and bad examples)   |
| INSTRUCTIONS        | Divide the group into smaller groups.<br>Hand out different formats of recipes to the groups.<br>Have the members discuss and write down what is missing from the recipes, how the recipe could be improved, what they liked about the recipes and what recipe format they would prefer to use when cooking.<br>Discuss as a whole group. |
| DISCUSSION/COMMENTS | A recipe, no matter its format, gives ingredients and instructions for a specific food so that it tastes the same every time. Discuss the characteristics of a good recipe: complete list of ingredients and equipment, clear step-by-step instructions, temperature, time and servings.  |
| PROCESSING PROMPTS  | What are characteristics of a good recipe?<br>What are the three types of recipes?<br>What do you look for in a recipe?   |



## Label Information

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*Activity Adapted from: The Supermarket*

|                     |  |
|---------------------|--|
| TOPIC               | Label Reading  |
| LEARNING OUTCOMES   | To identify the information found on a variety of different food labels.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Food labels from a variety of food products (fresh, canned and frozen)<br>Pens<br>Paper  |
| INSTRUCTIONS        | <p>Divide the members into smaller groups of three to four.</p> <p>First have the members make a list of all the things they expect to see on a food label.</p> <p>Give the members a variety of food labels.</p> <p>Have them examine the label and check if it meets their expectations brainstormed above.</p> <p>Discuss with the group.</p>   |
| DISCUSSION/COMMENTS | <p>Suggestions:</p> <ul style="list-style-type: none"> <li>• Provide a checklist to the members of information that should be provided on a label: name of product, nutritional information, ingredient list, storage and handling, preparation instructions, expiry date, name and address of company.</li> <li>• Have the members examine a variety of food labels and compare them to the checklist (make sure to have examples of good food labels and not so good food labels).</li> <li>• Give the member two labels of two similar food products with differences in the nutritional information.</li> <li>• Have the members examine the labels and choose the “healthier” food based on the nutritional information (fat, fibre, sugar, calories, vitamins, protein, etc.).</li> <li>• Have the members choose the products they would consider buying based on being “healthy” and “not as healthy”.</li> </ul> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Whole wheat bread versus white bread</li> <li>• 100% juice versus fruit cocktail</li> <li>• Fruit leather versus granola bars</li> <li>• Potato chips versus baked potato chips</li> <li>• Low sodium soup versus regular soup</li> <li>• Calcium enriched products versus regular products</li> </ul> |
| PROCESSING PROMPTS  | <p>What information on a label do you look for when grocery shopping?</p> <p>What information must be included on a label?</p> <p>Do you look at food labels to make your decision about what food you should be buying?</p>   |

## Table Manner Skits

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|                     |   |
|---------------------|---|
| TOPIC               | Table Manners   |
| LEARNING OUTCOMES   | To demonstrate good and bad table manners.  |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | Nothing   |
| INSTRUCTIONS        | <p>Divide members into small groups of 2 to 3.</p> <p>Have the groups create two short skits demonstrating good and bad table manners.</p> <p>Have the groups act out their skits to the rest of the groups. The groups will then try to guess the good or bad table manners illustrated.</p> |
| DISCUSSION/COMMENTS | Proper table manners are important and make meals more enjoyable. Manners are more than just proper eating but also being kind and considerate of others. Discuss with the members proper table manners.  |
| PROCESSING PROMPTS  | <p>Why are table manners important?</p> <p>What are some examples of bad table manners?</p> <p>What are some examples of good table manners?</p>  |

## Measuring Relay

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|                     |   |
|---------------------|---|
| TOPIC               | Measuring   |
| LEARNING OUTCOMES   | To learn how to measure, as well as to understand the importance of properly measuring ingredients.   |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | <p>Liquid measuring cups</p> <ul style="list-style-type: none"> <li>· 2 – 1 cup (250 mL)</li> <li>· 2 – 2 cup (500 mL)</li> <li>· 2 – 1/2 cup (125 mL)</li> <li>· 2 – 1/3 cup (75 mL)</li> <li>· 2 – 1/4 cup (50 mL)</li> </ul> <p>2 pitchers of water (of at least 4 cups (1 L))<br/>Table top, counter or tray</p>  |
| INSTRUCTIONS        | <p>Divide the group into 2 teams of 3 (if you have enough for more teams make sure you have more measuring cups).</p> <p>Each team gets 1 set of liquid measuring cups (1 cup, 2 cup, 1/2 cup, 1/3 cup, and 1/4 cup) and a pitcher of water.</p> <ul style="list-style-type: none"> <li>· If you are doing this outside make sure that you have a tray to set the measuring cups on.</li> <li>· If you are doing this inside make sure you are near a table or counter top to set the measuring cups on.</li> </ul> <p>The first member in each team will start by measuring 1 cup (250 mL) of water into the 1 cup (250 mL) measuring cup.</p> <p>The member must walk quickly to the end of the room (or end of a designated area) and back.</p> <ul style="list-style-type: none"> <li>· Once the member is back they must pour 1/2 (125 mL) of water into a 1/2 cup (125 mL) measuring cup and the other 1/2 into the 2 cup (500 mL) measuring cup.</li> </ul> <p>The next member in line must then start with a new 1 cup (250 mL) of water in the 1 cup (250 mL) measuring cup.</p> <ul style="list-style-type: none"> <li>· The member must then walk quickly to the end of the room and back.</li> <li>· Once the member is back they must pour 1/3 cup (75 mL) of water into the 1/3 cup (75 mL) measuring cup and another 1/3 (75 mL) into the 2 cup (500 mL) measuring cup.</li> </ul> <p>The third member must then start with a new 1 cup (250 mL) of water in the 1 cup (250 mL) measuring cup.</p> <ul style="list-style-type: none"> <li>· The member must then walk quickly to the end of the room and back.</li> <li>· Once the member is back they must pour 1/4 cup (50 mL) of water into the 1/4 cup (50 mL) measuring cup and another 1/4 cup (50 mL) into the 2 cup (500 mL) measuring cup.</li> </ul> <p>The first team to finish should end up with 1 cup (250 mL) of water in the 2 cup (500 mL) measuring cup if done properly and no water was spilled!</p> |
| DISCUSSION/COMMENTS | <p>Measuring is the most important step to achieving the best cooking results. Recipes are developed using a specific amount of each ingredient to turn out a final product that tastes good and cooks properly.</p> <p>Discuss the importance of using the right measure with the right ingredient.</p>  |
| PROCESSING PROMPTS  | <p>What ingredients do you use a liquid measure for?</p> <p>What ingredients do you use a dry measure for?</p> <p>What happens if you do not use proper measuring tools?</p>  |

## Utensil Guess

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|                     |  |
|---------------------|--|
| TOPIC               | Kitchen Utensils   |
| LEARNING OUTCOMES   | To identify common kitchen utensils and their function.  |
| TIME                | 15 minutes   |
| MATERIALS/RESOURCES | Paper<br>Pen<br>Variety of common and unusual cooking utensils   |
| INSTRUCTIONS        | Give each member a piece of paper and a pen.<br>Hold up one kitchen utensil at a time.<br>Have the member write down the name of the utensil and what it is used for.<br>After all the utensils have been shown, discuss the answers as a group.   |
| DISCUSSION/COMMENTS | Discuss with the members the importance of using the right cooking utensil for the right task.<br>Discuss what you could use if you didn't have certain kitchen utensils. <ul style="list-style-type: none"> <li>· Substitute a fork for a whisk</li> <li>· Substitute a cheese grater for a lemon zester</li> </ul> |
| PROCESSING PROMPTS  | What are common kitchen utensils that are found in your kitchen?<br>Why is it important to use the right cooking utensil?<br>What kitchen utensils do you use?   |

## Measure Guess

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|                     |   |
|---------------------|---|
| TOPIC               | Measuring   |
| LEARNING OUTCOMES   | To demonstrate different measuring tools.   |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | Variety of different shapes of measuring tools<br>· Liquid (small and large), dry (large and small) and measuring spoons<br>Masking tape  |
| INSTRUCTIONS        | Cover the measurement marking on the cups and spoons with the masking tape.<br>Hold up the measure and have the members guess what the measurement is and what ingredients should be used.<br>Have the members take turns guessing. |
| DISCUSSION/COMMENTS | Proper measuring is very important to successful baking outcomes. It is important to use the right tool with the proper ingredient. Discuss the importance of dry and liquid measures.  |
| PROCESSING PROMPTS  | What is the difference between dry and liquid measures?<br>How do you measure dry and liquid ingredients?<br>Why is proper measuring so important?  |



# Cook it Right

## Bread in a Bag

*Activity adapted from: Saskatchewan Ag in the Classroom*

|                     |   |
|---------------------|---|
| TOPIC               | Yeast Breads  |
| LEARNING OUTCOMES   | To learn how to make yeast breads from scratch.   |
| TIME                | 1 1/2 hours   |
| MATERIALS/RESOURCES | <p>1 extra large Ziploc™ bag per member</p> <p>Ingredients for one member:</p> <ul style="list-style-type: none"> <li>· 1 Tbsp (15 mL) canola oil</li> <li>· 2 tsp (10 mL) salt</li> <li>· 2 Tbsp (30 mL) sugar</li> <li>· 1 package yeast</li> <li>· 4 cups (1 L) all purpose flour</li> <li>· Loaf pan</li> <li>· Warm water</li> </ul> <p>Measuring cups/spoons</p>  |
| INSTRUCTIONS        | <p>This activity works best when members work in small groups, with a partner.</p> <p>Have the members place the yeast, warm water and sugar in the Ziploc bag – let proof for 5 minutes.</p> <ul style="list-style-type: none"> <li>· If using instant yeast add 1/2 cup (125 mL) all purpose flour, 1 package instant yeast, 1/2 cup (125 mL) warm water and the 2 Tbsp (30 mL) of sugar – this does not need to proof.</li> </ul> <p>Close bag and knead it with fingers until the ingredients are completely blended.</p> <p>Leave bag closed with contents on the counter and let dough rest for 10 minutes.</p> <p>After 10 minutes add:</p> <ul style="list-style-type: none"> <li>· 2 cups (500 mL) flour</li> <li>· 3/4 cup (175 mL) warm water</li> <li>· 1 Tbsp (15 mL) canola oil</li> <li>· 2 tsp (10 mL) salt</li> </ul> <p>Mix well.</p> <p>Add 1 1/2 (375 mL) cups of flour, close the bag and knead it.</p> <p>Let the dough sit for another 5 minutes – it should double in size.</p> <p>Open the bag and put the dough onto a clean floured surface.</p> <p>Form the dough into loaves and put into a greased loaf pan.</p> <p>Allow 30 minutes to rise.</p> <p>Bake 20-25 minutes at 350°F (180 °C) oven.</p> |
| DISCUSSION/COMMENTS | <p>If you are making bread as a micro-organism experiment, vary the yeast, sugar and water temperatures for interesting results – then discuss findings with the group.</p> <p>Discuss yeast and what it needs to grow, as well as, the importance of proofing and kneading.</p>  |
| PROCESSING PROMPTS  | <p>What does yeast do?</p> <p>What is kneading?</p> <p>What is proofing?</p>  |



# Rock Candy

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*Activity adapted from: The Accidental Scientist*

|                     |   |
|---------------------|---|
| TOPIC               | Sugar Crystals  |
| LEARNING OUTCOMES   | To illustrate the formation of sugar crystals.  |
| TIME                | Preparation: 25 minutes<br>Final: 7 days  |
| MATERIALS/RESOURCES | For each member: <ul style="list-style-type: none"><li>• 4 cups sugar (1000 mL)</li><li>• 2 cups water (500 mL)</li><li>• 1 small saucepan</li><li>• Wooden spoon</li><li>• Candy thermometer</li><li>• Small clean glass jar</li><li>• Measuring cup</li><li>• Cotton string</li><li>• A weight to hang on the string (a clean washer or screw)</li><li>• Waxed paper</li><li>• A pencil</li></ul>   |
| INSTRUCTIONS        | <p>Heat the water in a saucepan over medium heat until it comes to a boil.</p> <p>Completely dissolve the sugar in the boiling water, stirring continuously with the wooden spoon until the solution is clear and reaches a rolling boil.</p> <p>Remove the solution from the heat and then carefully pour it into a jar. Cover the jar with waxed paper.</p> <p>Tie the weight to one end of the string and tie the other end around the middle of the pencil. The string should be about two thirds as long as the jar.</p> <p>Dip the string into the solution, remove it and lay it on a piece of waxed paper, straighten and let dry.</p> <ul style="list-style-type: none"><li>• The string will provide the surface on which the crystals grow. As water evaporates, small crystals will encrust the string, which provide the starting point for larger crystals.</li></ul> <p>Gently suspend the string in the solution at room temperature for several days. Do not touch the jar until the experiment is finished.</p> <p>At the end of the week the crystals should be clearly defined, with sharp right angles and smooth faces. These are called monoclinic crystals. Their shape is determined by the way the individual sugar molecules fit together.</p> |

## Rock Candy continued

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### DISCUSSION/COMMENTS

The white substance we know as sugar is sucrose, a molecule composed of carbon, hydrogen and oxygen.

When you add sugar to water, the sugar crystals dissolve and the mixture turns into a solution. When as much sugar as possible is dissolved, the solution is known as saturated.

The saturation point is different at different temperatures. The higher the temperature the more sugar and less water in that solution.

At high temperatures, the sugar remains in the solution even though most of the water is evaporated. When the candy begins to cool there is more sugar in the solution than normally possible. This is called super saturation.

Super saturation is an unstable state. The sugar molecules will begin to crystallize back into a solid at the least movement or disruption in the cooking process.

This crystallization is natural in sugar molecules but unwanted when making candy.

Crystallization can be prevented in candy by adding ingredients such as fats, acids (lemon juice), or glucose-fructose based ingredients such as corn syrup.

### PROCESSING PROMPTS

What happens when sugar is boiled in water?

What happens if there is more dissolved sugar in the water?

What are sugar crystals?

# Monster Mallows

*Activity adapted from: The Accidental Scientist*

|                     |   |
|---------------------|---|
| TOPIC               | Sugar Molecules   |
| LEARNING OUTCOMES   | To illustrate what happens when sugar is heated and then cooled in candy making.  |
| TIME                | 15 minutes  |
| MATERIALS/RESOURCES | 2 marshmallows<br>1 paper plate<br>Paper towels<br>Microwave  |
| INSTRUCTIONS        | <p>Put one marshmallow on a paper plate.</p> <p>Put the plate in the microwave and turn on high for 1 minute (60 seconds).</p> <p>Stand back and watch through the window of the microwave. After about 20 seconds, you will see the marshmallow start to puff up. It will grow to about four times its original size.</p> <p>When the microwave turns off, carefully take the plate out of the microwave and put it on the counter.</p> <p>Wait a few seconds, and then pull the marshmallow off the plate. Is the marshmallow hollow? Is the inside the same colour as the outside? When you eat it is it soft or crunchy?</p> <p>Put the other marshmallow on the paper plate and in the microwave on high for 1 minute (60 seconds).</p> <p>Leave the marshmallow on the plate and watch it for one minute. When it shrinks down, you can pull it with your fingers and make it into whatever shape you want. It will stay in that shape and get hard and crunchy.</p>            |
| DISCUSSION/COMMENTS | <p>Marshmallows are mostly sugar and water trapped around a bunch of air bubbles.</p> <p>When you cook them in the microwave, several things happen at once. The microwave makes the water molecules vibrate very quickly, which makes the water heat up. The hot water warms the sugar, which softens it a little and the hot water also warms the air bubbles.</p> <p>As the air bubbles warm up, the air molecules bounce faster and push harder against the bubble walls. Since the sugar walls are warm and soft the bubbles expand and the marshmallow puffs up.</p> <p>When you take the marshmallow out of the microwave and it cools off, the sugar becomes hard, dry and crunchy. This is because the water evaporates from the marshmallow. When candy is boiled to higher temperatures, the end result is brittle candy.</p> <p>Cook a third marshmallow for 2 minutes. It should turn brown or black. This is what happens when the sugar gets hot – caramelization.</p> |
| PROCESSING PROMPTS  | <p>What makes candy hard when cooled after boiling?</p> <p>What happens when you cook candy at high temperatures for long periods of time?</p> <p>What happens to the water when you boil a sugar solution for long periods of time?</p>  |

## Planting Your Own Herb Garden

*Activity adapted from: Food for Thought*

|                     |   |
|---------------------|---|
| TOPIC               | Growing Your Own Herbs and Spices   |
| LEARNING OUTCOMES   | To illustrate how to plant a herb garden.   |
| TIME                | 40 minutes  |
| MATERIALS/RESOURCES | <p>Seeds: parsley, basil, chives or mint</p> <p>A pot with drainage holes – 1 per member</p> <ul style="list-style-type: none"> <li>· You could also use margarine containers (Have the members poke 2-3 holes in the bottom).</li> </ul> <p>Saucer</p> <ul style="list-style-type: none"> <li>· If using margarine containers, use the lid as the saucer</li> </ul> <p>Potting mix or soil</p> <p>Small stones</p> <p>Markers</p>  |
| INSTRUCTIONS        | <p>Give each member a pot/margarine container. If using a margarine container, have the members poke 2-3 holes in the bottom with a nail or screw.</p> <p>Have the members place several stones in the bottom of the pot.</p> <p>Have the members fill the pot with soil and place it on a saucer or the lid from the margarine container.</p> <p>Have the members sprinkle the seeds over the soil and cover with more soil. Make sure to read the directions on the seed packet.</p> <ul style="list-style-type: none"> <li>· Make sure you write the kind of herb on the container.</li> </ul> <p>It might also be helpful for you and your family to make a list of foods that work well with the herbs.</p> <p>Tell the members to water lightly and keep the soil moist until the seeds start to grow.</p> <p>Have the members watch them grow.</p> <p>When the herbs are full-grown – pinch or clip off the tops of the herbs when you need some. Don't worry, they will grow back.</p> <p>When the herbs are three to four inches and there is no chance of frost they can be planted outside. They may also be left in the original container or planted in a larger pot. If planted in the ground, some herbs such as mint and chives will come up each year.</p> |
| DISCUSSION/COMMENTS | <p>Members will enjoy growing something of their own, especially something they can eat. Herbs are great to grow. They grow quickly outside or by a sunny window.</p> <p>Herbs can be used as a topping on salads or soups, sprinkled on meat, poultry or fish, added to vegetables or even to your favourite desserts, fruits and yoghurts.</p> <p>Members can also dry their own herbs to be used all winter long.</p> <ul style="list-style-type: none"> <li>· Pinch or clip the herbs first thing in the morning – selecting only the healthy and undamaged shoots.</li> <li>· Find a warm, dry place to hang the herbs. Tie the stalks together and hang the bundles upside down to dry.</li> <li>· After the herbs are dry, remove any foliage from the stalks.</li> <li>· Store the dried herbs in an airtight dark container or in a sealed bag in the freezer – make sure to label and date the herbs.</li> </ul> <p>You can also use this activity to grow fruits and vegetables.</p>   |
| PROCESSING PROMPTS  | <p>What are the benefits of using herbs and spices?</p> <p>What can you use herbs for?</p>  |

What are some common herbs?

## What's for Dinner?

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|                     |  |
|---------------------|--|
| TOPIC               | Meal Creation  |
| LEARNING OUTCOMES   | Members will be able to use their knowledge to create meals.   |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | <p>Empty packages of a variety of food:</p> <ul style="list-style-type: none"> <li>· Food pictures, food models or food cards will work as well – approximately 20 foods with a variety from all four food groups.</li> <li>· Example: Dried pasta, canned tomatoes, apple, milk, peanut butter, frozen vegetables, chicken, rice, whole wheat bread, whole wheat tortillas, cheese, yoghurt, carrot, tuna, zucchini, hamburger, dried oatmeal.</li> </ul> <p>Paper<br/>Pen</p>                    |
| INSTRUCTIONS        | <p>Set the food packages on the table.</p> <p>Give each member a paper and a pen.</p> <p>Have the members make as many meals as possible using at least 3 ingredients. Let the members be creative in making snacks, lunches, suppers and breakfasts.</p> <p>Have the members also write down the cooking method that would be needed to make this meal: grilling, slow cooking, baking, boiling, etc.</p> <p>Challenge the members to make the meals include at least 3 of the 4 food groups.</p> |
| DISCUSSION/COMMENTS | <p>This activity allows members to creative in making their own meals.</p> <p>Discuss how the members would go about cooking their meals.</p>  |
| PROCESSING PROMPTS  | <p>What are different ways of cooking?</p> <p>What are creative ideas you use at home to make meals?</p> <p>Why is creativity important in cooking?</p>  |



# Backyard and Beyond

## Buy Local Challenge

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|                     |  |
|---------------------|--|
| TOPIC               | Local Foods  |
| LEARNING OUTCOMES   | To explore foods that are grown and raised in your own province.   |
| TIME                | Preparation: 10 minutes<br>1 week later: 30 minutes  |
| MATERIALS/RESOURCES | Paper<br>Pens  |
| INSTRUCTIONS        | <p>As a group, have the members make up a list of foods that are grown locally in their community and in the province.</p> <p>Have the members challenge themselves to meet at least one of the following objectives to be reported during the next project meeting:</p> <ul style="list-style-type: none"> <li>· Eat at least one home cooked meal prepared with local ingredients.</li> <li>· Incorporate one local ingredient, that has never been tried before, into your next meal.</li> <li>· Talk to one local food producer about their products.</li> </ul> <p>Visit one farmer's market, farm or vendor to purchase a local food.</p> <p>Have the members write a short report of the benefits and challenges of buying local foods to discuss during the following meeting.</p> |
| DISCUSSION/COMMENTS | <p>You may want to bring in a speaker to the meeting or go on a field trip to discover what foods are local to your area and province.</p> <p>Discuss the benefits of buying locally. It supports the local economy and is a great opportunity to learn about Canadian foods.</p>  |
| PROCESSING PROMPTS  | <p>What do you consider a Canadian food?</p> <p>What foods do you consider as being unique to your province?</p> <p>Do you or your family eat foods that are locally grown in your community?</p>  |



# The Supermarket Flyer

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*Activity Adapted From: Chews Wisely*

|                     |  |
|---------------------|--|
| TOPIC               | Where Does Our Food Come From?   |
| LEARNING OUTCOMES   | To explore the sources of food that we eat, particularly food that originates in Canada.   |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | Grocery store flyers<br>Markers<br>Map of Canada<br>Scissors<br>Glue   |
| INSTRUCTIONS        | <p>Divide the group into smaller groups of three to four depending on the number of members.</p> <p>Provide each group with four or five flyers from different grocery stores as well as a map of Canada.</p> <p>Have the members identify all of the products made in Canada that are being advertised in the flyer.</p> <p>Have the members cut out and paste the food products on the appropriate provinces.</p> <p>Discuss the findings as a group.</p>  |
| DISCUSSION/COMMENTS | <p>This activity has many alternatives to fit with different topics.</p> <p>Suggestions:</p> <ul style="list-style-type: none"> <li>• In small groups, ask the members to classify the products within the grocery store flyers according to different criteria such as the four food groups or “everyday foods” and “sometimes foods”.</li> <li>• Give each group a map of a different country.             <ul style="list-style-type: none"> <li>• Have the members cut out food products that originate in that country.</li> <li>• You may need to pick up grocery store flyers from ethnic stores.</li> </ul> </li> <li>• Give each group a map of the world.             <ul style="list-style-type: none"> <li>• Have the members cut out food products that originate in other countries and are part of their culture.</li> </ul> </li> <li>• Divide the groups – if possible one for each province, or double up giving 2 to 3 provinces to a group.             <ul style="list-style-type: none"> <li>• Have the groups cut and paste food products are produced in that given province.</li> <li>• Give each group a picture outline of the province.</li> <li>• Hang all the provinces to form a Canadian food wall.</li> </ul> </li> </ul> |
| PROCESSING PROMPTS  | <p>What types of food products, found in the grocery store, are produced in Canada?</p> <p>What food products, found in the grocery store, are produced in your province?</p> <p>What food products, found in the grocery store, originate in other countries?</p>   |

## A Piece of Canadian Agriculture

|                     |  |
|---------------------|--|
| TOPIC               | Canadian Agriculture and Food  |
| LEARNING OUTCOME    | To learn about Canadian agriculture and food.  |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | Paper<br>Pen   |
| INSTRUCTIONS        | Give each member a piece of paper and a pen.<br><br>Hand out the question sheet and have the members write down the answer.<br><br>After all of the questions have been asked, go through the answers and discuss as a group.  |
| QUESTIONS           | <ol style="list-style-type: none"> <li>1. Which of these items can be made from cattle raised in Canada?             <ol style="list-style-type: none"> <li>a. Makeup</li> <li>b. Hamburgers</li> <li>c. Crayons</li> <li>d. All of the above</li> </ol> <p>The cattle that Canadian farmers raise are turned into a lot more than just steak. Cattle are also used for leather shoes, sports equipment, medicines and camera film.</p> </li> <li>2. Where is most of the maple syrup produced in Canada?             <ol style="list-style-type: none"> <li>a. All provinces</li> <li>b. Yukon, Newfoundland, British Columbia, Quebec</li> <li>c. Ontario, Quebec, New Brunswick, Nova Scotia</li> <li>d. Saskatchewan, Manitoba, Alberta, Prince Edward Island</li> </ol> <p>75% of the world's maple syrup is produced right here in Canada.</p> </li> <li>3. Alberta ranchers raise five million cattle annually – twice as many as any other province or territory. What province has the next largest number of cattle?             <ol style="list-style-type: none"> <li>a. Manitoba</li> <li>b. Quebec</li> <li>c. Ontario</li> <li>d. Saskatchewan</li> </ol> <p>Saskatchewan has 2.5 million cattle in feedlots and grazing the prairie grasslands.</p> </li> <li>4. In 1910, New Brunswick's Arthur Ganong created this item for his buddies when they went fishing and hunting. What was it?             <ol style="list-style-type: none"> <li>a. Granola bars</li> <li>b. Chocolate bars</li> <li>c. Molasses</li> <li>d. Fruit roll ups</li> </ol> <p>When Arthur Ganong invented this energy packed snack he sold it for five cents. Decades later, Ganong Chocolates sells boxed chocolate all across Canada made with Canada's top quality milk.</p> </li> <li>5. How many litres of milk does the average Canadian drink per year?             <ol style="list-style-type: none"> <li>a. 22 litres</li> <li>b. 92 litres</li> <li>c. 84 litres</li> <li>d. 67 litres</li> </ol> <p>Canadians drink 92 L of milk a year. A Canadian farmer produces 8,467 L of milk per cow!</p> </li> </ol> |

6. What is Canada's major agricultural product?

- a. Grains and Oilseeds
- b. Hogs
- c. Poultry
- d. Beef

33% of Canada's agricultural products produced are grains and oilseeds including wheat and canola. The second largest agricultural commodity produced is beef (16%), Dairy (16%), Forages – hay (10%), Hogs (9%), Poultry (8%), Horticulture (7%) and other (4%).

7. What is Canada's leading agri-food import?

- a. Vegetables
- b. Sugar
- c. Fruits and nuts
- d. Chocolate

Because of our cold climate Canadian farmers just can't grow everything. While we can enjoy Canadian apples, pears, strawberries and blueberries, fruits such as bananas and oranges must be imported from warmer climates.

8. What is Canada's top agri-food export?

- a. Livestock
- b. Oilseed products
- c. Vegetables
- d. Wheat

Canada's top agri-food export is wheat contributing 3.5 billion dollars to the economy, followed by meat (3 billion), livestock and vegetables and fruit (1.7 billion), beverages (1.5 billion), other grains and grain products (0.8 billion) and oilseed products (0.4 billion).

9. How many Canadians work within the agri-food system?

- a. 1 in 10
- b. 1 in 15
- c. 1 in 7
- d. 1 in 25

1 in 7 Canadians works within the agri-food system. There are a lot of people involved in the agri-food system from the production, processing, distribution and the consumer aspect (grocery stores).

10. Which two of the following Canadian provinces and territories have the largest proportion of their land used for agriculture?

- a. Ontario and Quebec
- b. Prince Edward Island and Saskatchewan
- c. British Columbia and Nova Scotia
- d. Yukon and Northwest Territories

Prince Edward Island is well known for growing potatoes and Saskatchewan's climate and soil conditions are perfect for growing crops such as wheat, canola, barley and specialty crops.

## A Piece of Canadian Agriculture continued

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### DISCUSSION/COMMENTS

This activity can also be done in groups or teams.

- Divide the group into 2 teams. Ask each team one question at a time. If they get it correct they get a point, if they get it wrong the other team has a chance to answer it. The first team with the most points wins.

Feel free to add more questions.

- Ask questions related to your province's agricultural products.
- Ask questions related to your community's agricultural products.

This is a fun way for members to learn about agriculture and food.

### PROCESSING PROMPTS

What are common agri-food products grown in Canada?

What are common agri-food products grown in your province?

What is the top Canadian agricultural import and export?

## A Piece of Canadian Agriculture Question Sheet

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- 1) Which of these items can be made from cattle raised in Canada?
  - a. Makeup
  - b. Hamburgers
  - c. Crayons
  - d. All of the above
- 2) Where is most of the maple syrup produced in Canada?
  - a. All provinces
  - b. Yukon, Newfoundland, British Columbia, Quebec
  - c. Ontario, Quebec, New Brunswick, Nova Scotia
  - d. Saskatchewan, Manitoba, Alberta, Prince Edward Island
- 3) Alberta ranchers raise five million cattle annually – twice as many as any other province or territory. What province has the next largest number of cattle?
  - a. Manitoba
  - b. Quebec
  - c. Ontario
  - d. Saskatchewan
- 4) In 1910, New Brunswick's Arthur Ganong created this item for his buddies when they went fishing and hunting. What was it?
  - a. Granola bars
  - b. Chocolate bars
  - c. Molasses
  - d. Fruit roll ups
- 5) How many litres of milk does the average Canadian drink per year?
  - a. 22 litres
  - b. 92 litres
  - c. 84 litres
  - d. 67 litres
- 6) What is Canada's major agricultural product?
  - a. Grains and Oilseeds
  - b. Hogs
  - c. Poultry
  - d. Beef

- 7) What is Canada's leading agri-food import?
- Vegetables
  - Sugar
  - Fruits and nuts
  - Chocolate
- 8) What is Canada's top agri-food export?
- Livestock
  - Oilseed products
  - Vegetables
  - Wheat
- 9) How many Canadians work within the agri-food system?
- 1 in 10
  - 1 in 15
  - 1 in 7
  - 1 in 25
- 10) Which two of the following Canadian provinces and territories have the largest proportion of their land used for agriculture?
- Ontario and Quebec
  - Prince Edward Island and Saskatchewan
  - British Columbia and Nova Scotia
  - Yukon and Northwest Territories

# Food for Thought

## Farming for Favourite Foods

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*Activity adapted from: Saskatchewan Ag in the Classroom*

|                     |  |
|---------------------|--|
| TOPIC               | Field to Fork  |
| LEARNING OUTCOMES   | To determine the background of favourite foods.  |
| TIME                | 40 minutes   |
| MATERIALS/RESOURCES | Magazines, newspapers, grocery store flyers<br>Blank paper<br>Crayons, markers, pens<br>Scissors and glue  |
| INSTRUCTIONS        | <p>Have the members choose their favourite food.</p> <ul style="list-style-type: none"> <li>You may direct them to choose a main dish, vegetable casserole, fruit dessert, etc.</li> </ul> <p>Give each member a piece of blank paper.</p> <p>Have the members draw and colour their favourite food in the middle of the page.</p> <p>Have the members divide their paper into areas designated for fields, pastures, gardens, barns and food industry all around their favourite foods.</p> <p>Have the members draw or cut out pictures that tells the story of their favourite food, from plants to animals, to where the food is grown, to where the food is raised and where the food goes, after the farm.</p> <p>Have the members discuss with the group where their food comes from.</p> |
| DISCUSSION/COMMENTS | <p>This activity will help members make a connection between their favourite food and agriculture.</p> <p>Some foods are connected to both animals and plants (e.g. spaghetti and meat sauce).</p> <p>Discuss with the members the importance of exploring how their foods are grown, raised, transported, processed and preserved.</p> <p>This is also a good opportunity to discuss foods that are available in their own community.</p>   |
| PROCESSING PROMPTS  | <p>Where does your food come from?</p> <p>What are ways your food is grown, transported, processed and preserved?</p> <p>What foods are grown in your community?</p>   |



## Agriculture in Your Life

*Activity adapted from: Listening to the Prairie, Farming in Nature's Image.*

|                     |  |
|---------------------|--|
| TOPIC               | Agriculture in Your Life   |
| LEARNING OUTCOMES   | To identify agriculture in everyday products.  |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | Paper<br>Pencils/pens  |
| INSTRUCTIONS        | Give the members a copy of the "Agriculture in Your Life" matching sheet.<br>Have the members match the everyday product with the agriculture source.<br>After the members are done, go through and discuss. |

Answer Key:

| Agriculture Source | Everyday Products      |
|--------------------|------------------------|
| Beeswax            | Cosmetics/Makeup       |
| Canola             | Suntan lotion          |
| Canola             | Windshield wiper fluid |
| Canola oil         | Newspaper ink          |
| Cattle bones       | Camera film            |
| Corn               | Toothpaste             |
| Corn               | Cough syrup            |
| Cornstarch         | Air bags               |
| Cow                | Chalk                  |
| Cow hide           | Wallets                |
| Flax               | Leather shoes          |
| Hemp Rope          | Jewellery              |
| Hogs               | Volleyball             |
| Horse hair         | Curling broom          |
| Milk               | Bubble bath            |
| Oats               | Shampoo                |
| Ostrich fur        | Computer cleaners      |
| Pig                | Football               |
| Turkey down        | Pillow                 |
| Wheat              | Kitty Litter           |
| Wheat              | Car gasoline           |
| Wheat Straw        | Kitchen cupboards      |
| Wheat straw        | Black boards           |

**DISCUSSION/COMMENTS** Agricultural products play a major part in our lives, from what we wear, to what we use in our homes. We might not always think of agricultural products as the source of the items or things we use everyday. However, most daily essentials can be traced back to an agricultural product.

**PROCESSING PROMPTS** Is food the only thing that can be traced to agricultural products?  
What everyday products contain an agricultural source?  
Why is agriculture so important in the food we eat and the products we use?

## Agriculture in Your Life – Matching Sheet

| Agriculture Source     | Everyday Products |
|------------------------|-------------------|
| Cornstarch             | Volleyball        |
| Wheat straw            | Shampoo           |
| Milk                   | Toothpaste        |
| Cattle bones           | Jewellery         |
| Windshield wiper fluid | Canola            |
| Wheat                  | Pillow            |
| Cow                    | Kitchen cupboards |
| Ostrich fur            | Cough syrup       |
| Beeswax                | Wallets           |
| Corn                   | Curling broom     |
| Horse Hair             | Computer cleaners |
| Hemp Rope              | Camera film       |
| Wheat Straw            | Bubble bath       |
| Wheat                  | Football          |
| Flax                   | Leather shoes     |
| Canola oil             | Chalk             |
| Pig                    | Cosmetics/Makeup  |
| Turkey down            | Car gasoline      |
| Oats                   | Black boards      |
| Canola                 | Suntan lotion     |
| Corn                   | Kitty Litter      |
| Hogs                   | Air bags          |
| Cow hide               | Newspaper ink     |

# The Apple Test

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*Activity Adapted From: Alabama Ag in the Classroom*

|                     |  |
|---------------------|--|
| TOPIC               | Agriculture  |
| LEARNING OUTCOME    | To demonstrate how much of the Earth's surface is suitable for agriculture.  |
| TIME                | 10 minutes   |
| MATERIALS/RESOURCES | 1 large apple<br>Sharp knife<br>Cutting board  |
| INSTRUCTIONS        | <p>Take the apple (this represents the Earth) and slice it into four quarters<br/>Set aside 3 of the 4 pieces.</p> <ul style="list-style-type: none"> <li>· Inform the students that <math>\frac{3}{4}</math> of the Earth is covered in water.</li> </ul> <p>Slice the remaining <math>\frac{1}{4}</math> in half.</p> <ul style="list-style-type: none"> <li>· One half represents land inhabitable by people . Set this piece aside.</li> </ul> <p>Cut the remaining piece into four equal sections.</p> <ul style="list-style-type: none"> <li>· <math>\frac{3}{4}</math> of these sections represents land that is too rocky, wet, cold, steep or has been developed into urban areas. Set aside.</li> </ul> <p>Peel the skin from the remaining piece.</p> <ul style="list-style-type: none"> <li>· This represents the surface of the Earth that is available for farming.</li> </ul> |
| DISCUSSION/COMMENTS | <p>You are left with the skin (the Earth's surface) of <math>\frac{1}{32}</math> of the entire apple that is suitable for agricultural use. This test shows how little suitable land is left for farming (approximately 3%). This small amount of land is able to feed the entire world population, but is threatened by increasing population, urbanization, development and the environmental degradation.</p> <p>The agricultural industry grows and produces the food for us. We are all involved in agriculture to some extent and its good to know a bit about where and how our food comes to us.</p>   |
| PROCESSING PROMPTS  | <p>How much of the Earth's surface is used to produce all of our food?</p> <p>What are factors that prevent good farming areas?</p> <p>What agricultural products are grown in our province and across Canada?</p>   |

# The Great Food Debate

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*Activity Adapted From: Life Bytes*

|                     |  |
|---------------------|--|
| TOPIC               | Food Issues  |
| LEARNING OUTCOME    | To enable members to consider an important issue relating to food from different perspectives.   |
| TIME                | 30-40 minutes  |
| MATERIALS/RESOURCES | Stop watch<br>Paper and Pens<br>Chairs   |
| INSTRUCTIONS        | <p>Divide the group into two.</p> <p>Choose a motion to debate:</p> <ul style="list-style-type: none"> <li>· Example: Organic food is safer than conventional foods, vegetarian diets are not as healthy as regular diets, eating at restaurants causes you to be unhealthy, slow cooking is better than grilling, etc.</li> </ul> <p>Assign each group as either “for” or “against” the motion.</p> <p>The leader will act as the moderator and the members will participate in the debate.</p> <p>Give each team a few minutes to discuss the motion and ideas.</p> <p>One member from the “for” group will stand up and talk for 1 minute about their opinions, a member from the “against” group will then stand up and talk for one minute. This pattern continues until all the members have had a turn speaking.</p> <p>Give members a few more minutes to gather their thoughts and come up with a few main points they want to get across.</p> <p>One member from each group will stand up and present a brief summary of their views.</p> <p>After the speeches, the members have an opportunity for “rebuttal” – where the members have the opportunity to respond to the information presented by the opposition.</p> <p>Have the members take a vote “for” or “against” the motion.</p> |
| DISCUSSION/COMMENTS | Debating is the communication of two differing opinions or options of a certain topic. In debate, the preparation and delivery of argumentation provides members with the opportunity to think critically, improve their communication skills, solve problems creatively, and increase their self-confidence.  |
| PROCESSING PROMPTS  | <p>What is a debate?</p> <p>Do you think it is easy or difficult to change your views?</p> <p>What have you learned from this debate?</p>  |

# Field to Fork

## Taste Tests

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*Activity Adapted from: Kids in the Kitchen*

|                     |   |
|---------------------|---|
| TOPIC               | Food Product Variety  |
| LEARNING OUTCOMES   | To explore the taste, smell, textures and colours of different varieties of one kind of food product.   |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | <p>Samples of different varieties of one food product</p> <p>Toothpicks</p> <p>Paper</p> <p>Pencil crayons</p> <p>Paint colour sample sheets (colours of the food you are using)</p> <ul style="list-style-type: none"> <li>· You can pick up one of these sheets at a local hardware store that sells paint</li> </ul>   |
| INSTRUCTIONS        | <p>Collect different varieties of one food product:</p> <ul style="list-style-type: none"> <li>· Apples (MacIntosh, Granny Smith, Gala, Golden Delicious)</li> <li>· Beans (Chickpeas, Pinto, Black, Brown, Kidney)</li> <li>· Cheese (Cheddar, Mozzarella, Monterey Jack, Blue)</li> <li>· Lettuce (Romaine, Iceberg, Garden, Red)</li> <li>· Onion (Red, Yellow, White, Green)</li> <li>· Cooked Meat cuts (butterfly, loin, chop)</li> </ul> <p>Have the members examine the different varieties of food products and rate them on a scale of 1 – 10 based on taste, smell, appearance, texture and colour (compare the colour to the paint colour sample sheet).</p> <p>Have the members compare and discuss their ratings of the food products with the group.</p> |
| DISCUSSION/COMMENTS | <p>There is a tremendous variety of food available and different varieties give you different tastes, smells, textures and colours. These characteristics of food may influence your decision at the grocery store of what you purchase. Discuss how the members rated the different varieties. Discuss the importance of variety in your diet and the importance of trying new foods.</p>  |
| PROCESSING PROMPTS  | <p>What are the factors that influence you to purchase food products?</p> <p>What characteristics do you look for when you are shopping or preparing a meal?</p> <p>Can you name some foods that have many different varieties?</p>   |

## That Makes Scents

*Activity Adapted from: Kids in the Kitchen*

|                     |  |
|---------------------|--|
| TOPIC               | Cooking Spices   |
| LEARNING OUTCOMES   | To determine cooking spices through use of different senses.<br>To learn about spices used in dishes around the world.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Blindfold<br>Black film containers<br>Various spices:<br><ul style="list-style-type: none"> <li>· oregano, ginger, cinnamon, cumin, parsley, rosemary, basil, dill weed, garlic powder, cloves, curry</li> </ul> You may want to use a combination of fresh herbs to compare fresh to dried<br>Paper<br>Pencils  |
| INSTRUCTIONS        | Preparation:<br><ul style="list-style-type: none"> <li>· Gather a combination of spices and separate them into small film containers.</li> <li>· Number the containers so you are able to identify each spice (#1 – oregano, #2 – ginger).</li> </ul> Blindfold the members. One at a time let the members smell the different spices and write down what they think the spice is. Depending on the age level you may want to provide a list of spices for them to choose from.<br><br>Reveal the true identity of the spices after all the members have had a chance to guess the spices.   |
| DISCUSSION/COMMENTS | Spices enhance the natural flavour of foods and are an important part of the complex flavours of ethnic cuisines. Ethnic seasonings are high in flavour yet low in fat, calories and sodium, and offer the opportunity to explore new tastes.<br><br>This activity will allow members to discuss different spices and the dishes that we use them in. Discuss favourite scents and how important the sense of smell is to taste. Try tasting food while plugging your nose.<br><br>Discuss spices that are predominantly found in other countries and the dishes in which we commonly use them. <ul style="list-style-type: none"> <li>· Oregano – pizza, pasta sauce (Italian)</li> <li>· Ginger – chicken, fruits, vegetables (Thai, Chinese)</li> <li>· Cinnamon - cookies, cakes, fruits, breads (Thai)</li> <li>· Cumin – curry dishes, burritos, soups, chilli (Mexican)</li> <li>· Curry – lentils/beans, meat, chicken, fish (Indian)</li> <li>· Chilli – beef, vegetables, tacos, burritos (Mexican)</li> <li>· Parsley – chicken, potatoes, rice, vegetables (Canada, USA)</li> <li>· Garlic powder – anything (Mexican, Italian, Chinese, Thai, Greek, Eastern European)</li> <li>· Rosemary – chicken, meat, stuffing, potatoes (Italian)</li> <li>· Dill Weed – dips, fish, salad, soups, pasta (Greek)</li> <li>· Thyme – stuffing, stews, fish (Spanish)</li> </ul> |
| PROCESSING PROMPTS  | What is your favourite scent while you are cooking?<br>What spices do you use at home?<br>What country or region of the world does this spice come from?<br>What else do you use to add flavour to your dishes? (Worcestershire sauce, lemon, orange rinds, soya sauce, Tabasco)?  |

## Spice World

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*Activity Adapted from: Xpeditions*

|                     |  |
|---------------------|--|
| TOPIC               | Origins of Spices and Herbs  |
| LEARNING OUTCOMES   | To identify the place of origin of spices and herbs that help flavour your favourite dishes.   |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Photocopies of a world map with defined countries<br>Glue<br>Variety of spices and herbs, fresh or dried<br>List of the origins of spices and herbs<br>Construction paper<br>Markers/ crayons/ pencil crayons  |
| INSTRUCTIONS        | Have the members glue a world map onto a piece of construction paper.<br>On a blank map, have the members glue on a bit of spice or herb onto its "home country".<br>Have the members decorate and label the map.  |
| DISCUSSION/COMMENTS | Discuss with the members that flavour in dishes owes a lot to spices and herbs. As you savour each mouthful of a delicious dish you are also biting into a tasty way to explore the world. The spices and herbs in your kitchen are seasoned travellers. |
| PROCESSING PROMPTS  | What types of spices do you enjoy in your favourite dishes?<br>Do you know where your spices come from?<br>Why are spices important?<br>What are some benefits of spices?  |



# Psychic Powers

*Activity Adapted from: Kids in the Kitchen*

|                     |   |
|---------------------|---|
| TOPIC               | Food Identification and Communication   |
| LEARNING OUTCOMES   | To describe common foods.   |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | <p>Blindfold</p> <p>Paper bags</p> <p>Various foods:</p> <ul style="list-style-type: none"> <li>· Orange, apple, pasta, dried peas, beans and pulses, popcorn, etc.</li> </ul> <p>Various cooking/kitchen utensils (option):</p> <ul style="list-style-type: none"> <li>· Measuring cups, whisk, spatula, food thermometer, etc.</li> </ul>   |
| INSTRUCTIONS        | <p>The leader secretly must place several food items in paper bags (at least one food item per member).</p> <p>Have the members sit and ask one member to volunteer to put on the blindfold.</p> <p>The facilitator then pulls the food out of the paper bag so everyone else can see the item without saying anything.</p> <p>The members, one at a time, must give a clue to the member with the blindfold about that food in the bag. The blindfolded member must then use their “psychic power” to guess what the food is.</p> <p>Give the blindfolded member a chance to take a guess at what it is after every new clue. If the member cannot identify the food after everyone has given a clue they can then ask their own question in the form of a yes, no or maybe question.</p> <p>Once the item is identified, do not place back in the bag.</p> <p>Continue the game with the other food items until each member has had a chance to wear the blindfold.</p> |
| DISCUSSION/COMMENTS | <p>Suggestion:</p> <ul style="list-style-type: none"> <li>· Instead of using food items, you could centre the game around kitchen/cooking tools as listed in the materials.</li> </ul> <p>Discuss with the members the importance of communication when it comes to being able to describe things. Have a discussion about what it might be like for someone who is new to Canada and from a different culture who has never used these tools or foods before. It would be very important to be able to properly describe a food or utensil to help them. Colour, shape, texture, flavour, taste, smell, or food group could be described. Discuss the challenges someone might have following a recipe or grocery shopping if they are not familiar with the names of foods.</p>   |
| PROCESSING PROMPTS  | <p>Have you ever had to describe something new to someone before?</p> <p>Do you think it is easy to describe something to someone who has never seen, tasted or heard of that food before?</p> <p>Why might it be important to be able to communicate in describing food?</p>   |

# What's That Fat?

*Activity Adapted From: Chews Wisely*

|                     |   |
|---------------------|---|
| TOPIC               | Good and bad fats and oils  |
| LEARNING OUTCOME    | To categorize and recognize good and bad fats and oils.   |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | <p>Small bottles (still in original packaging) or a small container with the original label of various cooking oils.</p> <ul style="list-style-type: none"> <li>· Canola, Olive, Sunflower, Vegetable, Sesame, Peanut, Flax, Corn, Almond, etc.</li> </ul> <p>Small containers (still in original package) or a small container with the original label of various cooking fats.</p> <ul style="list-style-type: none"> <li>· Butter, Margarine (both with and without hydrogenated fat), lard, vegetable shortening, etc.</li> </ul> <p>Paper<br/>Pens</p>   |
| INSTRUCTIONS        | <p>Have the oils and fats displayed on a table at room temperature for at least 2 hours prior to the session.</p> <p>Divide the members into smaller groups.</p> <p>Give the groups a piece of paper and a pen.</p> <p>Have the members draw a chart composed of three columns. Have them label the first column "Unsaturated Fats", second column "Saturated fats" and third column "Trans fats".</p> <p>Have the groups compose a description for each type of fat. For example: state at room temperature, where the fats are commonly found, health benefits if any, bad, good, ugly etc.</p> <p>Have the members use the nutrition information on the fats/oils labels as well as their description of the types of fats to match up the correct fat and oil sample.</p> <p>Discuss the findings with the whole group.</p> |

Fat Type Description Table

| Unsaturated Fats   | Saturated Fats                  | Trans Fat                             |
|--|---------------------------------|---------------------------------------|
| Liquid at room temp  | Usually Solid at Room Temp      | Solid or Semi solid at room temp      |
| Good   | Bad                             | Ugly                                  |
| Include polyunsaturated and monounsaturated fats (Omega-3 and 6) | Animal Sources                  | Will contain the word "hydrogenation" |
| Good heart-healthy fats  | Processed and packaged foods    | Processed foods                       |
| Canola oil   | Butter                          | Vegetable shortening                  |
| Flax seed oil  | Lard                            | Hard margarines                       |
| Olive oil  | Palm oil                        | No health benefits                    |
| Corn oil   | Coconut oil                     | Avoid                                 |
| Sunflower oil  | Increase risk for heart disease |                                       |
| OK in moderation   | Use less often                  |                                       |
| Found in plants and fish   |                                 |                                       |

## What's That Fat? continued

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**DISCUSSION/COMMENTS**

Fats and oils are not equal. Some can improve your health, while others should be eaten in small quantities.

Explain that the body needs fat to grow and develop normally. Fat fuels the body, insulates it and keeps it warm and also helps absorb important vitamins. However only certain types of fat, in the right amount, are healthy.

**PROCESSING PROMPTS**

What are the good, the bad and the ugly fats?

What word should you always avoid when choosing fats and oils?

What are some examples of good fats?

## Starchy or Not?

*Activity Adapted From: Chews Wisely*

|                     |  |
|---------------------|--|
| TOPIC               | Starches in Foods  |
| LEARNING OUTCOME    | To understand the importance of starch in our bodies and where to find it.   |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | <p>Iodine (a small bowl for each group)</p> <p>Eye droppers for each drop</p> <p>Small paper plates</p> <p>Paper</p> <p>Pencil/Pen</p> <p>Variety of foods</p> <ul style="list-style-type: none"> <li>· Crackers, bread, orange slices, pasta, rice, potato slices, apple slices, meat, etc</li> </ul>   |
| INSTRUCTIONS        | <p>Divide the group into smaller groups of 3 to 4.</p> <p>Give each group paper and a pen, and a variety of food on paper plates.</p> <p>Have the group make a chart composed of four columns.</p> <ul style="list-style-type: none"> <li>· First column: Type of Food</li> <li>· Second column: Food Group</li> <li>· Third column: Does food contain starch? (Yes or No)</li> <li>· Fourth column: Does food really contain starch? (Yes or No)</li> </ul> <p>Have the members fill out the first three columns of the chart. Have the members guess whether or not the foods will or will not contain starch and put their answer in the third column.</p> <p>Have the members add a couple of drops of iodine into each food sample – remind members to be careful with the iodine as it may stain clothes.</p> <p>If the food contains starch the iodine will change colour from its normal brownish yellow to a blue or purple-black.</p> <p>Have the members record their observations in the fourth column and discuss with the whole group.</p> |
| DISCUSSION/COMMENTS | <p>All carbohydrates are made up of sugars. There are a number of different types of sugars, but in the body all carbohydrates are converted to sugar, our body's preferred energy source.</p> <p>Complex carbohydrates or starch are simply sugars bonded together to form a chain. Digestive enzymes have to work much harder to access the bonds to break the chain into individual sugars for absorption. For this reason digestion of complex carbohydrates takes longer. The slow absorption of sugars provides us with a steady supply of energy over a long period of time.</p> <p>Examples of complex carbohydrates are; pasta, macaroni, brown rice, potatoes, brown bread, pita bread, wholegrain cereals, porridge, peas, beans, lentils, etc.</p>   |
| PROCESSING PROMPTS  | <p>What is a complex carbohydrate?</p> <p>What are examples of complex carbohydrates?</p> <p>What food group contains the most complex carbohydrates?</p>  |

# Celebration

## Edible Fires

*Activity adapted from: The Guide Zone*

|                     |  |
|---------------------|--|
| TOPIC               | Fire Safety  |
| LEARNING OUTCOMES   | To demonstrate how to build a safe fire.   |
| TIME                | 15-20 minutes  |
| MATERIALS/RESOURCES | 1 place mat or plate per member<br>2 small Dixie cups per member<br>Raisins (fire circle)<br>Peanuts (safety circle)<br>Stick pretzels (kindling)<br>Hickory sticks (tinder)<br>Granola (sand)<br>Craisins (fire)<br>Red licorice (fuel)<br>Pictures of types of fire building techniques<br>Water<br>Baggies  |
| INSTRUCTIONS        | <p>Have each member fill one cup with water and the other cup with granola.</p> <ul style="list-style-type: none"> <li>· This represents your sand and water buckets that should be present when you are cooking over a fire.</li> </ul> <p>Have the members place the raisins in a circle – 4” in diameter.</p> <ul style="list-style-type: none"> <li>· This represents the fire circle.</li> </ul> <p>Have the members place the peanuts in a circle about 1” outside the fire circle.</p> <ul style="list-style-type: none"> <li>· This represents the safety circle where members are not allowed to play or run through the inside of the circle unless adding more wood or placing food on the fire.</li> </ul> <p>Have the members use the materials to build a fire using different techniques such as the tepee, log cabin, pyramid using the tinder and kindling.</p> <p>After the structure is built, use the licorice to light the fire and the craisins to represent the hot coals.</p> <p>The members can then put these dried goods (not the water) in a bag as a yummy trail mix treat.</p> |
| DISCUSSION/COMMENTS | <p>Discuss fire safety with the members:</p> <ul style="list-style-type: none"> <li>· Dig a small pit away from overhanging branches.</li> <li>· Circle the pit with rocks.</li> <li>· Clear a five foot area around the pit of any debris.</li> <li>· Keep a bucket of water and sand nearby.</li> <li>· Stock extra wood away from the fire.</li> <li>· After lighting the match do not discard until cold.</li> <li>· Never leave a campsite unattended.</li> <li>· Totally extinguish the fire before you go to sleep or whenever you leave the site.</li> </ul>   |
| PROCESSING PROMPTS  | <p>What is a fire circle?<br/>           What is a safety circle?<br/>           What are some fire safety tips?</p>   |

## Planning a Food Party!

|                     |  |
|---------------------|--|
| TOPIC               | Party planning   |
| LEARNING OUTCOMES   | To describe the planning, organizing and preparing required to plan a food party.  |
| TIME                | 30 minutes   |
| MATERIALS/RESOURCES | Paper<br>Markers<br>Pens<br>Pencils  |
| INSTRUCTIONS        | <p>Give the members the task of planning a pretend party.</p> <p>This activity can be done individually or in small groups.</p> <p>Give each member some paper and some writing utensils.</p> <p>Have the members write down some of the important items to consider when planning a party:</p> <ul style="list-style-type: none"> <li>· Theme</li> <li>· Location/Time/Date</li> <li>· Decorations/Entertainment</li> <li>· Number of guests</li> <li>· Menu</li> <li>· Recipe list</li> <li>· Grocery list</li> <li>· Timeline of when everything needs to be done by</li> <li>· Special considerations (If someone will be helping, dietary concerns)</li> </ul> <p>Have each member present the planning they would need to do to hold their own food party.</p> |
| DISCUSSION/COMMENTS | <p>Planning a party for a group of people requires planning, organization and preparation. There are many things one must consider before holding a party such as guests, location, time, date, theme, food, recipes, decoration, entertainment and logistics. A party can be successfully done with proper planning!</p> <p>Suggestion:</p> <ul style="list-style-type: none"> <li>· For junior members, give the members a list of themes to choose from.</li> <li>· Have the members design an invitation to their guests including information such as date, time, theme, dress, location, contact information, RSVP information and any dietary concerns.</li> </ul>  |
| PROCESSING PROMPTS  | <p>What is one of the first things you need to decide before planning a party?</p> <p>What information should be included on an invitation?</p> <p>What are other things you need to think about when planning a party?</p>  |

## Snow Taffy

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|                     |   |
|---------------------|---|
| TOPIC               | Outdoor Cooking   |
| LEARNING OUTCOMES   | To make a snack outside in the winter.  |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | Clean snow<br>Candy thermometer<br>Maple syrup<br>A pot<br>Camp stove or cook top<br>Cake pan<br>Stirring spoon<br>Popsicle sticks<br>Oven mitt or pot holders  |
| INSTRUCTIONS        | <p>Pack clean snow in the cake pan.</p> <p>On a camp stove or cook top, heat the maple syrup in the pot. If it is producing too many bubbles, add a drop of vegetable oil into the boiling syrup.</p> <p>Boil the syrup until it has reached the soft ball stage – refer to the candy chart, or this may be identified on the candy thermometer. Make sure to stir the syrup continuously to prevent burning. This should take approximately four minutes. Drip a little syrup into cold water and if it forms a hard thread that will bend but not break, it is ready.</p> <p>Drizzle the syrup over the snow and roll it onto a popsicle stick.</p> |
| DISCUSSION/COMMENTS | <p>There are lots of fun ways to cook outdoors in the winter.</p> <p>Snow taffy is a Canadian food that originates from the maple syrup industry in Quebec.</p> <p>Discuss the different stages of candy and what might happen if you cooked the syrup past the soft ball stage or even under the soft ball stage.</p>  |
| PROCESSING PROMPTS  | <p>What are things you should remember when cooking outdoors?</p> <p>What is the soft ball stage?</p> <p>Where does snow taffy originate?</p>   |



# Cardboard Box Oven

*Activity Adapted from: The Guide Zone*

|                     |   |
|---------------------|---|
| TOPIC               | Outdoor Cooking   |
| LEARNING OUTCOMES   | To make a cardboard box oven.   |
| TIME                | 30 minutes  |
| MATERIALS/RESOURCES | Cardboard box with flaps, copy paper size<br>Heavy duty aluminium foil<br>Duct tape<br>Small aluminium pan<br>Four empty tin cans<br>Briquettes   |
| INSTRUCTIONS        | <p>Open one side of the cardboard box. Completely cover the inside of the cardboard box with the tin foil (shiny side out). Make sure to also wrap the flaps on the one side (this is will be the door).</p> <p>Use duct tape to seal the edges.</p> <p>It is very important that no cardboard is exposed. If you accidentally tear even a tiny piece of foil, make a patch and be sure the tear is covered.</p> <p>Set the cardboard box on its side with the flaps facing you.</p> <p>Fill the tin foil cans with water and place them in the corners of the box. The cans will hold up your baking pans.</p> <p>Light the briquettes and wait until they are white. One briquette supplies approximately 45°F (7°C) of heat; therefore you would need 8-9 briquettes to reach 350°F(180°C). Place the briquettes in the small aluminium pan and place in-between the four tin cans underneath your baking pan.</p> <p>Close the door, seal and your oven is ready!</p> |
| DISCUSSION/COMMENTS | <p>Anything you can cook in an oven at home and will fit in your cardboard box can be cooked in the box oven. New, first time users should stick to food that will cook in 30 to 45 minutes.</p> <p>Make sure that the flaps are closed tightly. Check on your cooking at the minimum time stated in the recipe to avoid losing your heat. If you want to decrease the temperature carefully removes some briquettes or leave a crack in the door to let the heat escape.</p> <p>You can also place a cooking rack on the tin cans for your baking pan.</p> <p>Be creative!</p>   |
| PROCESSING PROMPTS  | <p>What should you remember when cooking outdoors?</p> <p>What could you cook in the box oven?</p> <p>What are other ways of cooking outdoors?</p>  |



# Judging

# Judging Your Foods

*Activity Adapted from: Ontario 4-H Judging Toolkit*

|                     |   |
|---------------------|---|
| TOPIC               | Judging   |
| LEARNING OUTCOMES   | To practice judging a variety of food items.  |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | 4 similar food items (apples, baked goods, cooking utensils, food pictures, recipes, snacks (nutrition, cost), etc.)<br>Paper/pens  |
| INSTRUCTIONS        | <p>Depending on what type of food item you are using, you will want to discuss some characteristics the members should consider:</p> <ul style="list-style-type: none"> <li>· Bread – crust, colour, aroma, air cells</li> <li>· Snacks – nutrition, whole grain ingredients, cost, high in good and bad nutrients (fat, sugar, fibre, etc)</li> <li>· Apples – colour, size, bruising, disease, overall quality</li> <li>· Meat cuts – fat and marbling, texture, firmness, meat yield</li> </ul> <p>Lay out the 4 similar food items so everyone can see them.</p> <ul style="list-style-type: none"> <li>· Depending on the number of members and time, you may want to set up several stations of the same food item or of different food items. Give the members 10 minutes at each station before rotating.</li> </ul> <p>Have the members write down their placing of the food item and their reasons for their placing.</p> <p>Have the members present to the group their reasons for placement.</p> |
| DISCUSSION/COMMENTS | <p>Discuss the importance of judging in regards to assessing quality.</p> <p>A set of reasons is meant to compare the differences in the items that were judged. Your reasons explain why you placed the class the way you did. The most important reasons should be first, and the least important last. Make sure you aren't just describing the articles. You must compare them. Try to have at least two or three points for each comparison. This will ensure that you stay within any time limits. As you gain confidence and experience, you may wish to add more reasons. See what works for you.</p>   |
| PROCESSING PROMPTS  | <p>What things should be looking for when judging foods?</p> <p>What are some do's and don'ts of judging?</p> <p>Why are the reasons important in judging?</p>  |

## Judging Presentation Power

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*Activity Adapted from: Ontario 4-H Judging Toolkit*

|                     |  |
|---------------------|--|
| TOPIC               | Judging Presentation   |
| LEARNING OUTCOMES   | To demonstrate the importance of a confident judging presentation.   |
| TIME                | 20 minutes   |
| MATERIALS/RESOURCES | <p>4 similar food items (apples, baked goods, cooking utensils, food pictures, recipes, snacks)</p> <p>Paper</p> <p>Pens</p> <p>Personality cards</p> <p>Prior to the session write 4 different personality types on 4 cards</p> <ul style="list-style-type: none"> <li>· Over-confident – aggressive, pushy, loud voice, invading personal space.</li> <li>· Shy – quite voice, eyes focusing on the floor, slumped shoulders, minimal movement.</li> <li>· Nervous – stuttering, eyes darting, knees knocking, hands shaking.</li> <li>· Confident – clear voice, good eye contact, straight posture, friendly smile.</li> </ul>   |
| INSTRUCTIONS        | <p>As a group judge the food items and prepare a short set of reasons for that placement.</p> <p>Distribute the personality cards to 4 members, instructing them not to show anyone. Give these members the opportunity to read their reasons again and get into character.</p> <p>The remaining members will be judging the reasons given by the 4 members. It is their job to listen, watch and critique their performance. This gives the members an opportunity to see some do's and don'ts of judging performances.</p> <p>Give members with a personality card time to present their reasons. The judging members will then write down their official placing of the presentations.</p> <p>Discuss as a group the different styles of personalities in presentation.</p> <p>Who gave the most convincing? Why were they convincing? Which style was the strongest and why? Why is it important to be confident in your presentation?</p> |
| DISCUSSION/COMMENTS | <p>Discuss the attributes of a confident presentation: loud, clear and easy to hear, speak at an even pace, maintain eye contact, stand comfortably, speak confidently, use correct grammar, avoid repeating phrases, no long periods of silence, have good enunciation and avoid reading notes.</p> <p>After giving your reasons, the person listening should be able to have a clear mental picture of the food items from the comparison given by the judging presentation.</p>   |
| PROCESSING PROMPTS  | <p>What are the best personality attributes when giving a presentation?</p> <p>Why is it important to be confident when giving a presentation?</p> <p>What should you do to prepare for your presentation?</p>   |

## Picture the Ideal

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*Activity Adapted from: Alberta 4-H Judging Manual*

|                     |   |
|---------------------|---|
| TOPIC               | Judging   |
| LEARNING OUTCOMES   | To identify and prioritize characteristics when judging a class of items.   |
| TIME                | 20 minutes  |
| MATERIALS/RESOURCES | <p>Variety of food items (1-2 different items per group)</p> <ul style="list-style-type: none"> <li>· Use food cards, pictures from magazines, food itself, or the name of the food written on a card.</li> </ul> <p>Paper and Pens</p>   |
| INSTRUCTIONS        | <p>Divide the members into small groups of 2-3.</p> <p>Give each group 1-2 food items.</p> <ul style="list-style-type: none"> <li>· Example: whole fruits and vegetables, pictures of baking (cookies, pies, bread), the words “breakfast” or “lunch” written on a blank card, etc.</li> </ul> <p>Have each group develop a list of 10 characteristics they would look for in their “ideal” food item.</p> <p>Have the members put their list of characteristics in order of importance, numbering them 1 for the most important and 10 for the least.</p> <p>Discuss the lists as a group.</p> |
| DISCUSSION/COMMENTS | <p>Before you judge any class, you must know exactly what you should be looking for and what is the most important. This makes your job easier as a judge as you will know exactly what to look for.</p> <p>Many classes have a set scorecard, which assigns a set of value to that item. Review the scorecard before judging.</p>  |
| PROCESSING PROMPTS  | <p>What do you look for when you are judging an item?</p> <p>Was it easy or difficult to rate your list of characteristics for the food item?</p> <p>What are some rules you should follow when judging?</p>  |

# Internet Activities

## Internet Activities

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### Eating Well

My Food Guide – Junior, Intermediate, Senior

An interactive tool that will help members personalize the information found in Eating Well with Canada's Food Guide:

[http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/myguide-monguide/index\\_e.html](http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/myguide-monguide/index_e.html)

Eating and Activity Tracker – Junior, Intermediate, Senior

An interactive tool that lets you track your day's food and activity choices and compares them to the recommendation set by Health Canada:

[http://www.dietitians.ca/public/content/eat\\_well\\_live\\_well/english/eatracker/](http://www.dietitians.ca/public/content/eat_well_live_well/english/eatracker/)

Dining Decisions – Junior

An interactive tool that allows members to choose food items for a healthy balanced diet:

[http://www.bam.gov/sub\\_foodnutrition/diningdecisions\\_games.html](http://www.bam.gov/sub_foodnutrition/diningdecisions_games.html)

### Food Safety

Food Safety Web Wheel – Junior, Intermediate, Senior

An interactive tool to test your food safety knowledge:

<http://www.inspection.gc.ca/english/corpaffr/educ/gamejeu/wheeroue.shtml>

Safe Temperature Game – Junior, Intermediate

An interactive tool to learn about proper temperatures to cook food:

<http://www.inspection.gc.ca/english/corpaffr/educ/gamejeu/tempe.shtml>

### Fundamentals

The Virtual Grocery Store – Intermediate, Senior

An interactive tool to learn about the nutrition information on the labels of packaged foods:

[http://www.healthyeatingisinstore.ca/virtual\\_grocery.asp](http://www.healthyeatingisinstore.ca/virtual_grocery.asp)

Interactive Nutrition Label and Quiz – Intermediate, Senior

An interactive tool to learn more about the nutrition label and to test your knowledge:

[http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/interactive/index\\_e.html](http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/interactive/index_e.html)



## Cook it Right

Candy-O-Matic – Junior, Intermediate, Senior

An interactive tool to learn how to make candy:

<http://www.exploratorium.edu/cooking/candy/Cando.html>

## Field to Fork

Calcium Calculator – Junior, Intermediate, Senior

An interactive tool to calculate how much calcium you are getting per day:

<http://www.osteoporosis.ca/english/about%20osteoporosis/calcium%20calculator/default.asp>

Virtual Meat Counter - Beef – Junior, Intermediate, Senior

An interactive tool to describe all types of beef cuts and how to cook them:

<http://www.beefinfo.org/counter.cfm>

Iron Challenge – Junior, Intermediate, Senior

An interactive tool to test your knowledge about iron:

[http://www.beefinfo.org/bh\\_iron.cfm](http://www.beefinfo.org/bh_iron.cfm)

Virtual Meat Counter - Pork – Junior, Intermediate, Senior

An interactive tool to illustrate how to choose pork cuts and the best method for cooking them:

[http://www.putporkonyourfork.com/put\\_pork\\_on\\_your\\_fork/virtual\\_meat\\_counter.html](http://www.putporkonyourfork.com/put_pork_on_your_fork/virtual_meat_counter.html)

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