

4-H Foods Project

CANADA®

NOVA SCOTIA
Agriculture
4-H And Rural Organizations

LEADER RESOURCE

Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

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.

Published by:

Canadian 4-H Council Resource Network, Ottawa ON

Compiled by:

Andrea Lewis, Manitoba

Graphic Design by:

Perpetual Notion, www.perpetualnotion.ca

Date:

April 2008

Table of Contents

Project Overview **2**
Benefits to 4-H Members 3
Design 3
Format 3
Getting Started 4
During the Project 5
The Achievement Day 5
Food and Kitchen Safety: 5
Food Allergy 7
Eating Well **9**
Eating Well with Canada's Food Guide 10
A Matter of Fat 13
Moderation and Balance 15
Am I Really Hungry? 18
Breakfast of Champions 20
Brown Bag Lunch 22
Nutrition in a Nutshell 24
Healthy Snacking 26
V is for Vitamins 28
Food Safety **31**
Food Safety 32
Best Before 36
Is Our Food Really Safe? 38
Fundamentals **41**
Reading a Recipe 42
Measuring 44
Manners Matter 46
Reading a Food Label 49
Grocery Shopping 51
Well-Stocked Kitchen 53
Organize your Kitchen 56
Cook it Right **59**
Slow Cooking 60
Food Preservation 62
Baking 67
Grilling 69
Breads 72
Candy 75
Backyard and Beyond **79**
Flavours of Canada 80
Worldly Foods 83
Food for Thought 87
Vegetarianism 88
Organic Food 90
Food Service 92
Where Does Our Food Come From? 95
Field to Fork **97**
The Goods on Grains 98
Check for Pulses 102
Eggcellent Eggs 105
Fruits and Vegetables 108
Oilseeds 110
Milk Products 113
Pork - Not Just the Other White Meat 117
Poultry 120
What's Your Beef? 123
Spice it up! 126
Fish 128
Celebration **131**
Outdoor Cooking 132
Types of Suppers 135
Planning a Party 138
Gifts from the Kitchen 142
Appendicies **145**
Appendix A: Vitamins and Minerals 146
Appendix B: Bacteria That Cause Foodborne Illness 149
Appendix C: Fruit Freezing Chart 151
Appendix C: Vegetable Blanching Chart 152
Appendix D: Recommended Internal Cooking Temperatures 153
Appendix E: Recommended Food Storage Chart 154
Appendix F: Internet Activities Summary 156
Appendix G: Metric Conversion Guide 158
Appendix H: Glossary 159
References **162**

Project Overview

You are what you eat! It is well documented that food choices affect one's health. We need to understand the principles behind good nutrition, what food is good for us and why. Then we can make the best food choices for our families and ourselves. Where we live and our family heritage will determine our food preferences and making food nutritious choices involves deciding what to eat, and when foods should be eaten. Having adequate financial resources will help us buy a good variety of healthy food that can be found in all of the food groups of Eating Well with Canada's Food Guide.

Food is an integral part of our lifestyle. We eat whether we're hungry or not, tired, bored, happy, sad, sick, or healthy. Food is consumed sitting, standing, or lying down. We eat alone, in groups, inside, outside, anytime of the day or night.

The human pursuit of food has changed dramatically since our ancestors spent most of their waking moments in pursuit of food. Hunting and gathering edibles were extremely time consuming and difficult processes and became easier when the domestication of animals and industrialized food production followed. Today, we forage in supermarkets for food with the world as our marketplace. We demand freshness, quality, quantity, convenience, and healthy safe food from farmers and food processors.

Today, with all the choices in the supermarket it is more important than ever to learn to prepare and cook simple, inexpensive, tasty healthy meals and snacks. We are constantly being challenged by the media to purchase instant, high fat, high sugar, low nutrition fast food. Preparing your own food isn't just better for your body, it's easier on your budget and it provides you with the opportunity to socialize by sharing food with friends and family.

And just like learning to ride a bike or speak another language, learning to cook is more effective if we can start early in life and have fun at it!

To initiate and/or reinforce healthy eating practices and better understand the relationship between nutrition, physical activity, and healthful lifestyles, look to Eating Well with Canada's Food Guide. Eating Well with Canada's Food Guide describes what amounts of food people need for their age and what types of food is needed for a healthy lifestyle. Following Canada's Food Guide will help people get enough vitamins and minerals and other important nutrients; reduce the risk of obesity, Type 2 diabetes, heart disease, certain cancers and osteoporosis; and provide overall health and vitality. Keep in mind that the eating patterns of many Canadians may be quite different based on social environment, heritage, age, gender and financial resources. But we can all benefit from nutrition education whether it's a young child, a student living on their own or 4-H alumni with a new family. It's never too young or too old to learn more about good nutrition

Benefits to 4-H Members

By taking part in the 4-H Foods project members will develop new skills as well as important learning abilities.

Sensory

Through tasting, hearing, touching, smelling and seeing. Members will be able to identify different foods.

Motor

Food preparation enhances eye-hand coordination.

Mathematics

Members will count, measure and follow recipes.

Safety

Members will learn the importance of safety when dealing with food, utensils, appliances, preparation and cooking.

Social skills

Members will get a sense of sharing and cooperation with the other members of the group.

Emotional development

As members learn for themselves they develop a sense of independence and positive self image.

Design

Each topic is designed to stand alone. They do not need to be implemented in order, but most complement one another. There are eight main themes. Each theme has several topics based around common objectives.

- Eating Well with Canada's Food Guide
- Food Safety
- Fundamentals
- Cook it Right
- Backyard and Beyond
- Food for Thought
- Field to Fork
- Celebration

Format

Each lesson plan includes:

Objective:

This is the overall goal for the 4-H members.

Processing Prompts:

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

Processing prompts are included in each activity and topic. These are a list of questions to ask in a group discussion. Some or all of the questions can be used to process the activity or topic. 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, 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 members.

Processing can be fast or slow depending on the group and the activity.

Background Information:

This is the information that you will need to enable the 4-H members to reach the set objectives. As all of the information on the topics cannot be presented, please refer to the resources for more information.

Key Messages:

Key messages are the core messages you want your members to hear and remember. Key messages are designed to highlight what you really need to get across on certain topics to your members.

Key messages are commonly known as BBQ statements – what we want the 4-H members to say when they are discussing the topic around a BBQ with friends. The most effective messages are usually simple, positive, and short.

Fortified with Fun:

Provides a selection of activities designed to reinforce the concepts introduced, as well as encourage member participation. Find these in the 4-H Foods Project Activity Guide.

Internet Activities:

Provides a selection, if available, of online activities to reinforce the concepts introduced. This can be done as part of the lesson, given as a take home activity or used as an extra source for information.

Now You're Cookin!

Provides members with an opportunity to put their knowledge into practice, develop basic cookery skills and develop a positive attitude towards food.

Feel free to use your own recipes if you think they are appropriate. Also contact commodity groups for recipes using their food products: Beef Information Centre, Nova Scotia Egg Producers, Flax Council of Canada, Pulse Canada, Pork Nova Scotia, Canola Council of Canada, etc. The numbers and websites are located in the Reference section.

Tips for Preparing Recipes

- Purchase non-perishable ingredients in bulk at the beginning of your 4-H project.
- Purchase perishable items in quantities as listed in activities/recipes before each cooking session.
- Review the recipe with the members and introduce any new cooking terms, foods and utensils they will be using.
- Have the members or yourself assemble the equipment and ingredients required on trays or on the table.
- Give each member and group a copy of the recipe.

Resources:

As all of the information cannot be presented within the reference book, additional resources are identified allowing for you and your members to "dig deeper" if desired.

Getting Started

Have members identify and clarify any allergies they may have. If serious food allergies are reported, ensure that these foods are avoided at all meetings. Ensure that all members, leaders and parent helpers know the treatment for allergic reactions.

Review available resources and plan the year's program.

During the Project

Familiarize yourself with information to be discussed. Ensure members are aware of materials required in advance of the meeting. (e.g. magazines, equipment, foodstuffs, money for food, etc.) These responsibilities can be assigned to members and/or parent helpers.

Help each member set and achieve goals for personal development.

Assist members with record sheets.

Plan (with the members) the Achievement Day.

Evaluate the club program.

The Achievement Day

The Achievement Day offers members the opportunity to share with others what they learned from the project.

Each 4-H club must hold an Achievement Day at some point during the membership year. The Achievement Day must provide the opportunity for each 4-H member to display and/or demonstrate project work and his/her accompanying record sheet.

Food and Kitchen Safety:

Guidelines for Food Safety

We learn most of our food preparation habits at home, including the guidelines for food storage, meal preparation and cooking food. Often, if they are taught improper food safety techniques, people can get sick. As a leader, it is important to teach young people the proper methods of keeping food safe before, during and after meal preparation to ensure they are kept safe from potentially dangerous foodborne illnesses.

Food safety begins at the grocery store!

Thinking about food safety begins at the grocery store. It is important to keep cold food cold and hot food hot while transporting it to your house. Arrange your shopping trip to get food home quickly and into the refrigerator. For transporting food use coolers, ice packs and thermos containers. Don't allow raw meat juices to come in contact with other foods, raw or cooked.

What about The Danger Zone?

Following the simple rule "Keep hot foods hot and cold foods cold" and out of The Danger Zone (4°C to 60°C or 40°F to 140°F) can prevent many foodborne illnesses.

Foods that could give you food poisoning should be kept below 4°C or, for hot food, above 60°C (140°F). Low temperatures prevent food poisoning bacteria, which may be present in the food, from multiplying to dangerous levels. High temperatures will kill bacteria and viruses. Because bacteria can grow to unsafe levels between 4°C and 60°C (40°F -140°F) we call it the Temperature Danger Zone.

Protecting foods from The Danger Zone

When you get foods home, refrigerate and freeze foods immediately. Keep foods in the refrigerator at a temperature of 4°C (40°F) or below. Don't overload the refrigerator; allow space for the air to circulate. If necessary, remove foods such as soft drinks to make room for temperature sensitive foods.

Is it safe to eat foods, that have been in the Danger Zone?

Less than 2 hours

Refrigerate immediately

Between 2 hours and 4 hours

Use immediately

More than 4 hours

When in doubt, throw out!!!

What are the four rules for food safety?

Clean

Clean hands, utensils and surfaces often to keep everything clean and free bacteria

Separate

Keeps foods separate to avoid cross contamination

Cook

Cook foods to proper temperatures

Chill

Refrigerate and freeze perishable foods promptly

Tips for Food Safety

Drawing attention to food safety guidelines can add to the educational benefits of the 4-H Foods project while aiding in the prevention of foodborne illness.

Hand-washing is one of the best ways to prevent the spread of foodborne illness.

- Have the members wash their hands for at least 20 seconds with soap and warm water before, during and after food preparation

Personal hygiene

- Members with long hair should keep it tied back
- Members should properly cover their wounds or cuts – use rubber gloves during food preparation

Tasting is an important part of the cooking experience, but can potentially spread germs.

- Have members use spoons, wooden sticks or tongue depressors for tasting but stress that they should only be used once
- Do not let the members use their fingers for sampling food

Practice safe food handling: cook, chill, separate and clean all of the time.

Talk about the importance of not coughing or sneezing near food.

Teach members to cough or sneeze into their sleeves or into a tissue followed by proper hand-washing before returning to the food.

For further information on food safety please refer to the food safety topics in the 4-H Foods Project Reference Book as well any of the references provided.

Guidelines for Kitchen Safety

Demonstrate safe cutting techniques (peel away from your hand, keep fingers away from sharp blades, etc.) and proper handling of other potentially dangerous blades.

Practice safe handling techniques of all utensils and appliances (hot stoves, blenders, knives, etc.).

Talk about the importance of preventing choking by chewing foods well, sitting straight and not talking with food in their mouth.

Have a First Aid kit available at all times.

Rules for the Kitchen

Establish a list of rules for the kitchen.

- No running or horseplay in the kitchen
- Wash hands
- Keep fingers out of the food
- Read recipes all the way through
- Be patient

Get the members to take ownership of the rules by adding their own rules to the list (within reason).

Make a poster with the rules on it so the members can read them at all times.

Review the rules at each session – have members take turns reading the rules out loud.

Food Allergy

What is a food allergy?

A food allergy is an immune system response to a food ingredient that the body mistakenly believes to be harmful. Once the immune system decides that a particular food is harmful, it creates antibodies to it. The next time the individual eats that food, the immune system releases massive amounts of chemicals, including histamine, in order to protect the body. These chemicals trigger different allergic reactions.

What are common signs of an allergic reaction?

- Tingling sensation in the mouth
- Swelling of the tongue and throat
- Difficulty breathing
- Hives (small or large red itchy welts)
- Vomiting and diarrhea
- Abdominal cramps

What is anaphylaxis?

Anaphylaxis is a severe reaction to a food, which has rapid onset and may cause death without emergency treatment.

Common signs of anaphylaxis

- Sudden development of hives
- Swelling of mouth and throat
- Runny eyes and nose
- Dizziness
- Drop in blood pressure

Anaphylaxis is an emergency and must be treated immediately. Each member should have a specific emergency plan with the doses of medication to be given, and the telephone numbers of the ambulance and medical services to be called. Leaders should be trained to recognize symptoms to administer an injection of the epinephrine and to immediately call for an emergency service vehicle for transportation to the nearest emergency facility.

What is the best way to avoid food allergy reactions?

Strict avoidance of the allergy-causing food ingredient is the only way to avoid a reaction.

Read ingredient labels for all foods is the key to maintaining control.

If a product does not contain an ingredient list, allergic individuals should not eat the food.

If unfamiliar with the terms or ingredients, contact the food manufacturers.

What are the most common food allergens?

- Peanuts
- Eggs
- Milk
- Tree nuts
- Wheat
- Sesame seeds
- Seafood
- Sulfites

What is a food intolerance?

Many people think the terms “food allergy” and “food intolerance” mean the same thing; however, they do not.

Food intolerance or food sensitivities occur when the body cannot properly digest a certain component of the food, often because there is not enough of a particular digestive enzyme.

Common types of food intolerances or sensitivities include lactose (the sugar in milk), gluten (wheat protein), sulfites (used in food preservatives), monosodium glutamate and artificial food dyes.

What are symptoms of food intolerance?

- Gas
- Bloating
- Abdominal pains/cramps
- Nausea
- Diarrhea
- Slight itching or redness

What is your responsibility as a leader?

Make sure you have a list of your members' allergies and/or food intolerances.

Make sure the information includes the food/ingredients that cause the reaction, common symptoms, emergency contacts and emergency plan.

Make sure you review the recipes and activities for any food that cause your members problems.

For further information or questions on food allergies please contact your local health department.

Eating Well

Eating Well with Canada's Food Guide

Objective:

To familiarize members with the new "Eating Well with Canada's Food Guide".

Processing Prompts:

How many of you use the "Eating Well with Canada's Food Guide"?

What are the 4 food groups?

Why is the food guide shaped in a rainbow?

Background Information:

Canada's Food Guide defines and promotes healthy eating for Canadians. By following the Food Guide, Canadians will be able to:

1. Meet their requirements for vitamins, minerals and other important nutrients.
2. Reduce the risk of obesity, Type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
3. Achieve overall health and vitality.

"Eating Well with Canada's Food Guide" encourages people to choose a variety of foods from each of the four food groups.

1. Vegetables and Fruit
2. Grain Products
3. Milk and Alternatives
4. Meat and Alternatives

How are foods arranged into the four food groups?

1. Agricultural background
2. Tradition
3. Use of the foods

What amount of food should people eat?

Canada's Food Guide recommends how many servings of each of the four food groups people should eat, plus a small amount of added oils and fats. The recommended number of servings is different for people at all stages of life and different for males and females.

Aim for the number of Food Guide servings recommended for you from each food group every day.

What is a food guide serving?

1. A food guide serving is a reference amount of food.
2. It is used to show the number of choices you need each day from each food group.

Examples of one food guide serving

Milk and Alternatives

- 1 cup (250 mL) milk
- 3/4 cup (175 mL) yoghurt

Vegetables and Fruit

- 1/2 cup (125 mL) fresh, cooked, canned or mashed vegetables
- 1/2 cup (125 mL) fresh, frozen, canned fruit or 100% fruit juice

Grain Products

- 1 slice of bread
- 1/2 cup (125 mL) cooked pasta, rice or couscous

Meat and Alternatives

- 2 eggs
- 2 tbsp (30 mL) peanut butter
- 2 1/2 ounces (deck of cards) cooked meat

What type of food should people choose?

The type of food that people eat is just as important as the amount we eat. Canada's Food Guide provides helpful tips for gauging the proper consumption of the food groups.

- Eat at least one dark green and one orange vegetable each day
- Have vegetables and fruit more often than juice
- Make at least half of your grain products whole grains
- Drink milk every day
- Have meat and meat alternatives such as beans, lentils and tofu
- Eat at least two food guide servings of fish each week
- Include a small amount of unsaturated fat
- Satisfy your thirst with water
- Choose foods lower in fat, sugar and salt

Another area discussed in the Canada's Food Guide is "Added Oils and Fats"

Fat is naturally found in many foods such as meat, fish, nuts, cheese and avocados. These fats help our bodies absorb the important fat-soluble vitamins A, D, E and K.

Oils and fats that are added to foods such as sauces, mayonnaise and salad dressings should be eaten in small amounts.

What does the rainbow stand for?

The different sizes of the arc represent the proportion of each food group that we eat with vegetables and fruits being the largest arc.

The foods on the rainbow reinforce the foods we should be eating, noting that foods high in sugar, fat and calories are not shown.

What important nutrients do the food groups provide?

Milk and Alternatives:

- Protein, vitamin A and D, calcium, phosphorous and magnesium

Vegetables and Fruit:

- Fibre and important vitamins and minerals

Grain Products:

- Fibre, B vitamins and iron

Meat and Alternatives:

- Protein, B vitamins and zinc

Key Messages:

Eat a variety of foods from all 4 food groups.

Eating well means balance and moderation.

Use Canada's Food Guide when planning your next meal or snack.

Fortified With Fun:

Healthy Eating Placemats

Bean Bag Toss

Food Charades

Balloon Food Guide

Livin' it Up! Bingo

Internet Activities:

My Food Guide

Eating and Activity Tracker

Now You're Cookin!:

Pizza from Scratch

Tuna Noodle Casserole from Scratch

Resources:

Health Canada: http://www.healthcanada.gc.ca/foodguide

For more copies of the Canada's Food Guide, contact:

Health Canada

Publications

Ottawa, Ontario, K1A 0K9

Tel: 1- 866-225-0709

Fax: 1-613-941-5366

Email: publications@hc-sc.gc.ca

Dietitians of Canada: www.dietitians.ca

A Matter of Fat

Objective:

To be able to distinguish between good and bad fats and oils.

Processing Prompts:

What does our body need fat for?

Can fats be good for you?

What are some foods that are high in good and bad fat?

Background Information:

What is the role of fat in our diet?

Our bodies need some fat because fat:

- Insulates organs
- Regulates body temperature
- Stores fat soluble vitamins A, D, E, K
- Make the basis for our bodies' hormones

Can fat be good for you?

Yes, it can! Remember, fat should be consumed in moderation, but some fats are essential. Our bodies cannot make essential fats. We need to get essential fats from food to survive.

Fats provide vitamins A, D, E, K.

Fats provide energy and vitamins that are necessary for maintaining your vision and healthy skin.

What are saturated fats?

Saturated fats should be eaten in moderation.

They are usually found in animal sources.

They are solid at room temperature.

They include butter and lard.

Saturated fats are commonly used in packaged and processed foods.

Examples: pre-packaged dinners, processed deli meats.

What are trans fats?

Trans fats should be limited.

Hydrogenated fats/oils is another word for trans fats.

They are usually solid or semi-solid at room temperature.

Trans fats are found in vegetable shortening, hard margarines and in many processed foods.

There are no known health benefits from industrially produced trans fats.

Look for foods that say zero trans fats, low trans fats and non-hydrogenated fats.

Many Canadian food manufacturers are working to remove trans fats from their products.

Examples: cookies, crackers, doughnuts, chips and baking.

What is hydrogenation?

Hydrogenation is when liquid oil is changed into a solid, causing trans fats to be formed.

Why are trans fats used in packaged foods?

Trans fats add to the texture and stability of foods. Foods that have gone through partial hydrogenation have a longer shelf life and don't spoil as quickly as foods made with pure vegetable oils and animal fats.

What are the "good" fats?

Unsaturated fats are good heart-healthy fats.

They are liquid at room temperature.

These fats should be eaten in moderation.

Unsaturated fats include polyunsaturated and monounsaturated fats

- Polyunsaturated fats are found in canola oil, nuts, and in fish like salmon.
- Omega-3 fatty acids are a type of polyunsaturated fats which are found in salmon, sardines, flaxseed, walnuts and pumpkin seeds.
- Monounsaturated fats are found in olive oil and avocados.

How do you find fats in foods?

Use the ingredient list to avoid saturated and trans fats.

- Read the ingredient list and limit foods that use the words: shortening, hard margarine, butter, partially hydrogenated oils, lard, coconut or palm oil.
- To choose a healthy margarine read the ingredient list. The first ingredient list should be "liquid oil" not "hydrogenated oil".

Key Messages:

Essential fats play an important role in our body.

Limit foods that contain saturated and trans fats.

Read the label to determine the types of fats you are eating.

Fortified with Fun:

Stringy Soup Experiment

Fat Finding Experiment

Fast Food Nation

Now You're Cookin!:

Low fat Chocolate Chip Zucchini Loaf

Flax Bannock Biscuits

Resources:

Dietitians of Canada: www.dietitians.ca

Moderation and Balance

Objective:

To understand the importance of moderation and balance when it comes to healthy eating.

Processing Prompts:

Why is moderation and balance so important?

What is a healthy portion size?

How can you measure a food guide serving without a measuring tool?

Background Information:

What is moderation and balance?

Life is about moderation and balance.

Too much sleep and you never get anything done; too little and you are tired. Too much food and you are stuffed; too little and you are hungry.

If you eat the right amount of food your body will run smoothly, you will be healthy weight and size and you'll look and feel great.

If you eat too much and don't exercise, you can gain weight and might not feel as good.

If you don't eat enough, your body won't have enough energy to run around and be active.

Moderation in eating is basically all about watching portion sizes.

What is a healthy portion size?

A portion is the amount of a food a person eats. When you are given a larger portion of food, you are likely going to eat more.

What does a serving from Canada's Food Guide look like?

A serving is a measured amount of food according to Canada's Food Guide. You don't need to weigh or measure foods to know the serving size.

This table shows common household items that are the same portion as food serving sizes from Canada's Food Guide.

ITEM	QUANTITY REPRESENTED	FOOD REPRESENTED	1 FOOD GUIDE SERVING
Baseball, light bulb or fist	1 cup (250 mL)	Cold cereal, salad, fruit or milk	Grains, Fruit and Vegetables and Milk
Tennis ball	3/4 cup (175 mL)	Hot cereal, yoghurt, beans, lentils	Grains, Milk and Meat
Computer Mouse	1/2 cup (125 mL)	Vegetables, tomato sauce, potato, pasta, rice	Fruit and Vegetables and Grains
Deck of Cards	2 1/2 oz (75 g)	Meat, chicken, fish, French fries	Meat, Other
Hockey Pucks		Mini bagel, bun, mini potato	2 Grain products, Fruit and Vegetables
Dice or Thumb tip	1 tsp (5 mL)	Butter, sugar cube	Other
Two volt batteries or two thumbs	1 1/2 oz (50 g)	Cheese	Milk

What does a Healthy Plate look like?

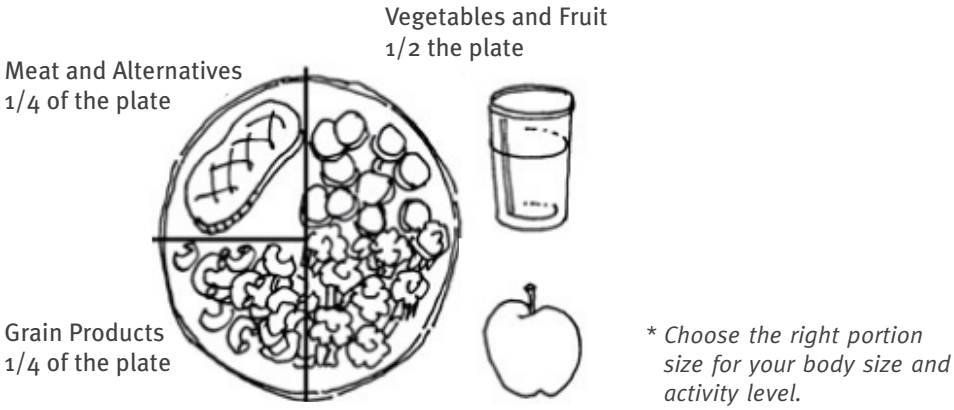
Divide your plate into three sections:

- 1/2 (one half) should be fruits and vegetables
- 1/4 (one quarter) should be grains or potatoes
- 1/4 (one quarter) should be meat and alternatives

Choose a medium-sized plate (about the size of a small frisbee) to keep your portions healthy.

- If you have a large plate, only fill the middle – don't fill a large plate right to the edge.

Portions of Food on a Healthy Plate:



* *Choose the right portion size for your body size and activity level.*

How do I maintain moderation and balance?

Choose the right portion size for your body size and activity level.

Eat within the first two hours of waking up.

Eat at least 3 meals a day.

At meals, eat more fruits and vegetables than other foods.

If meals are more than five hours apart have a snack – preferably fruit or vegetables.

Use smaller bowls, plates and glasses.

Don't eat food like ice cream and chips out of the container or bag. Put a smaller portion on a plate or in a bowl and put the bag away immediately.

Serve yourself in the kitchen.

Put leftovers away before you eat. Large bowls of food on the table makes it easier to eat more food.

Try not to eat food in front of the television.

Stop eating when you no longer feel hungry so that your body can tell you when you are full.

Wait 20 minutes before taking a second helping.

Don't skip meals. Your body needs regular meals and snacks to keep you going all day.

Your body needs food to help you grow and to make your body function properly. Your body needs food to give you energy.

Eat when you are hungry, not out of habit. Your body will tell you when its time to refuel.

Listen to your body!

Be Active! The balance between nutrition and physical activity is very important for overall health.

Key Messages:

Balance, variety and moderation are the key to healthy living.

Be aware of your portion sizes.

Listen to your body!

Fortified with Fun:

My Food Diary

Internet Activities:

Dining Decisions: http://www.bam.gov/sub_foodnutrition/index.html

Now You're Cookin!:

Pita Chips

Hummus

Resources:

Dietitians of Canada: www.dietitians.ca

Am I Really Hungry?

Objective:

To recognize the signs of hunger as opposed to “fake hunger”.

Processing Prompts:

What could happen if you ate every time you “thought” you were hungry?

How do you know when you are really hungry?

What are some reasons we might eat when we aren’t hungry?

Background Information:

Am I really hungry?

We often eat when we’re not hungry. One reason may be that many of us can’t recognize when our bodies need food.

For many people the first sensation of hunger sends them searching for food, often before they need to eat.

Feeling a little bit hungry at the start of a meal is good, but knowing when you could wait longer is also important. Eating every time you feel hungry could result in overeating.

How do I know if I am really hungry?

To determine if you are hungry ask yourself some questions:

- Am I really hungry?
  - If you are not sure, wait 20 minutes and ask again.
- When was the last time I ate?
  - If less than three hours, it may not be real hunger.
- Could a small snack tide me over until the next meal?
  - Try and have ready to eat fruits and vegetables on hand.
- Am I thirsty?
  - Try satisfying your hunger with water, your body just might be thirsty.
- How can I determine my hunger patterns?
  - Start keeping a food diary, record everything you ate, when, where, how you ate it and what you felt when you ate.
  - You will soon be able to discover your personal eating triggers, which helps you differentiate “fake” hunger from the real thing.

What are factors that could trigger “fake” hunger?

- Seeing an advertisement on television or in a magazine
- Looking for something to make us feel better
- Out of habit
- Boredom
- Having food right in front of us
- Being with friends and family
- Having no energy
- A lack of something in your diet
- Holiday eating

What does food mean to you?

What does food mean in your life right now? Do you eat for enjoyment or because you are hungry? Chances are you eat for a number of different reasons. It is very important that we recognize that we often associate food with feelings or moods. Some of these include:

- Physical – to supply the body with the nutrients it needs to carry out all of its functions.
- Psychological – we enjoy smells or think we "feel" hungry.
- Emotional – we may have emotions attached to food. For example, turkey dinners remind us of a happy time in our life like Christmas.
- Social – food is central to a gathering of people and is generally associated with hospitality.
- Availability – some foods are not available to us because they are grown in parts of the world where it is difficult to ship the food from.
- Economics – some foods are not within the food budget.
- Taste preference – is a very personal matter. What appeals to some people has little or no appeal to others.

Key Messages:

Listen to your body!

Be aware of the differences between "fake" hunger and "real" hunger.

It is important to recognize that we often associate food with feelings or moods.

Fortified with Fun:

My Food Choices

You Are What You Eat

Neon Milk

Now You're Cookin!:

Apple Peanut Butter Wraps

Resources:

Dietitians of Canada: www.dietitians.ca

Breakfast of Champions

Objective:

To stress the importance of a healthy breakfast.

Processing Prompts:

Why is it important to eat breakfast?

What are some reasons you may not eat breakfast?

What are some fun foods that you like to eat for breakfast?

Background Information:

What is the origin of the word "breakfast"?

Breakfast signifies breaking the fast observed through the previous night in that after dinner; a person doesn't have any food until the next morning. As that is considered a period of fasting, the next meal is in the morning and that's called a "breakfast".

Why should we eat breakfast?

Breakfast provides the energy needed to stay alert in the morning and carry out daily activities.

People who don't eat breakfast may be hungry, less energetic and less attentive.

Breakfast skippers often have low intakes of calcium, iron and fibre – three very important nutrients.

Breakfast skippers are more likely to miss class, be late or be sick more often than people who do eat breakfast.

People who skip breakfast often overeat during the rest of the day.

Do these excuses sound familiar?

I would eat breakfast if I had more time.

I can't face food first thing in the morning.

I am bored with typical breakfast foods.

Does a nutritious breakfast take a lot of time and preparation?

No! A nutritious breakfast does not have to take a lot of time or preparation. Not to mention those few extra minutes can mean more energy and alertness for your daily activities.

What are some quick and easy tips for breakfast?

Stock up

Keep your kitchen stocked with breakfast staples: cereal, milk, yoghurt, fruit, eggs, peanut butter, cheese etc.

Get Ready

Prepare for a few minutes in the evening – set out the toaster, pre-cut fruit and set the table.

Give it Time

Wake up a little earlier so that everyone has time to eat.

Make it a family affair.

Involve everyone in the preparation, choosing foods and clean up.

Wake up on the wild side.

Liven up your breakfast with creative fun food ideas.

Breakfast should include three out of the four food groups according to Eating Well with Canada's Food Guide.

What are some fun creative food ideas?

- Microwave an egg in a mug
- Waffle topped with yoghurt and fruit
- Fruit and milk blended in a blender
- Fill a tortilla with an egg and salsa
- Baked bagel with ham and cheese
- Peanut butter and banana rolled into a tortilla
- Dry cereal mixed with yoghurt and fruit
- Waffles cut up into sticks to dip in applesauce
- Pack a brown bag breakfast for "on the go"

What about doughnuts and pastries?

Starting your day with an incomplete breakfast such as a doughnut may leave you feeling very hungry by midmorning.

High sugar foods causes your energy to act like a seesaw. It gives you energy really fast and then drops really fast, ultimately affecting your productivity and concentration.

If you eat a doughnut and start loosing your focus, instead of grabbing another doughnut, try and break the seesaw effect by grabbing a healthy snack from one of the four food groups.

Key Messages:

Breakfast is very important meal of the day.

Breakfast can be fun and easy.

A nutritious breakfast provides you with the energy and nutrients needed for your daily activities.

Fortified with Fun:

Brown Bag Olympics

Now You're Cookin!:

Banana Berry Wake Up Shake

Breakfast in a Jiffy

Resources:

Dietitians of Canada: www.dietitians.ca

Brown Bag Lunch

Objective:

To encourage members to rethink the brown bag lunch in a fun, creative and energy packed way.

Processing Prompts:

Why is eating lunch important?

What are some creative lunch ideas you have made?

Why is it better to make your own lunch as opposed to grabbing a premade one?

Background Information:

Why is lunch important?

Lunch helps to provide fuel and the energy and key nutrients to get through the second half of the day.

During growth spurts you need more energy. As a result you may feel more hungry throughout these times.

How do you avoid the "Brown Bag Blues"?

People are more likely to eat a lunch that they have been involved in making and that includes the foods they like.

Providing a wide variety of foods for lunch.

Include foods from all four food groups.

BE CREATIVE.

How do you practice safe lunching?

Food safety is always a concern.

A rule of thumb is to keep hot foods hot and cold foods cold.

Cold packs or frozen juice boxes can be used to cool food.

Thermoses are a great way to keep foods hot.

How do you make "brown bagging" easy?

Have a collection of insulated containers, lunch bags or boxes, reusable drinking boxes, napkins and cutlery.

Organize all lunch containers in one area to speed up time.

Prepare your lunch the night before so you are not rushed in the morning.

When grocery shopping plan your lunch a week ahead so you are not scrambling for ideas at the last minute.

Make it a family affair- involve everyone in the preparation, choosing foods and clean up.

Why not grab a pre-packaged lunch?

Pre-packaged lunch items or snack packs are typically high in fat, salt and calories as well as low in nutrients.

If used daily it can become very expensive.

Being involved in making your own lunch paves way for healthier eating by knowing what goes into your lunch.

We are more likely to eat our lunch if they have a part in making it.

What can you take besides a sandwich?

- Muffin, boiled egg, carrot sticks
- Whole grain tortilla filled with leftover meat, vegetables, tuna salad, egg salad or cheese
- Whole grain pitas filled with leftover meat and vegetables
- Peanut butter and banana rollups
- Fruit salads
- Fun green salads with vegetables, nuts and seeds, fruit and meat
- Cottage cheese, fruit and vegetables
- Cold tortilla pizzas – bake cheese, tomato sauce, meat and vegetables on a tortilla and serve cold
- A bagel with cream cheese and vegetables
- Vegetable sticks and dip
- Fruit and yoghurt dip
- Leftovers – hot or cold

What about fluids?

Not consuming enough fluids can lead to dehydration, headaches, fatigue and difficulty concentrating.

Have plenty of fluids such as water, milk, chocolate milk and 100% fruit juices throughout the day.

Have a reusable water bottle for your backpack and lunch.

What about the school cafeteria?

Some schools contain a cafeteria.

Review the menu with your family and discuss healthy alternative.

Discuss the importance of MODERATION.

Are there any precautions you should taking when packing lunches?

Check with the school about any lunch guidelines.

- Peanut allergies
- No unhealthy snacks

Key Messages:

There is more to lunch besides sandwiches.

Brown bag lunches can be fun and easy.

A nutritious lunch provides you with the energy and key nutrients needed for the second half of the day.

Fortified with Fun:

Brown Bag Olympics

Now You're Cookin!:

Lunch Bag Wrap

Muffuletta

Resources:

Dietitians of Canada: www.dietitians.ca

Nutrition in a Nutshell

Objective:

To learn about the importance that nuts and seeds play in a healthy diet.

Processing Prompts:

Are nuts and seeds good for us?

How can you add more nuts and seeds to your diet?

Can you name some common nuts and seeds that would be good to eat?

Background Information:

Are nuts and seeds good for you?

Yes! Like the egg, they are nutrient packed whole foods specifically designed to provide essential nutrition in a compact package.

Aren't nuts and seeds high in fat?

Nuts and seeds are high in fat and calories. They are also packed with other important dietary elements.

Nuts are high in calories. While nuts should be considered for a heart healthy diet, they should be eaten in moderation.

What do nuts contain?

- Nuts are a good source of:
  - Protein needed to build and maintain all body tissues.
  - Fibre for your digestive tract, as well as your overall heart health.
  - Vitamin E for your skin, hair and nails.
  - B vitamins needed for cell building, blood, skin and digestive tract.

How do you include nuts and seeds in your diet?

- Don't just add nuts to your diet, substitute for something else.
  - Trade potato chips, candy, ice cream or any processed foods for 2 tbsp (30 mL) of your favourite nuts.
  - Add nuts and seeds to your salads, pasta dishes, fish, Stir-fry or baking.
  - Choose a cereal that contain nuts, but make sure there are no "trans" fats (read the label and avoid if "hydrogenated" or "partially hydrogenated" are listed).
  - Create your own trail mix by adding nuts, dry cereal and raisins together for a snack.
  - Avoid nuts that are overly salted or have been roasted using oil.
  - Sprinkle ground flaxseed over your hot or cold cereal in the morning.

- What are some healthy nuts?
  - Almonds
  - Cashews
  - Flaxseeds
  - Peanuts
  - Sesame seeds
  - Sunflower seeds
  - Walnuts
  - Peanuts – Contrary to their name, peanuts are not true nuts but a member of a family of legumes related to peas, lentils, chickpeas and other beans.

Key Messages:

Nuts and seeds provide essential nutrients.

Nuts and seeds can be easily added to your favourite dishes.

Nuts are high in calories and should be eaten in moderation.

Fortified with Fun:

Fat Finding Experiment

Stringy Soup Experiment

Now You're Cookin!:

Sweet and Spicy Pecans

Banana Nut Bread

Fruit Nut Mix

Healthy Snacking

Objective:

To encourage members to make healthy snack choices.

Processing Prompts:

Why is it important to snack?

What are some common snacks that you eat?

What are some creative snacks you eat?

Background Information:

What are the benefits of snacking?

Three meals a day used to be recommended. Now health experts are suggesting three small meals plus nutritious snacks.

Snacking keeps you energized throughout the day and provide a pick me up.

Helps you consume all of the important nutrients your body needs for growth, and prevents diseases.

Good way to manage hunger. It helps prevent overeating at your next meal.

Don't feel guilty about snacking between meals but do try to make healthy food choices.

How do you snack?

Fill the fridge with pre-washed, pre-cut vegetables and fruit.

Keep your healthy snacks in sight and easy to reach – store less nutritious snacks at the bottom of a cupboard or out of sight.

Stock the pantry with quick and easy snacks – whole grain crackers, cereals, tortillas, nuts and dry trail mix.

Have yoghurt and cheese in the fridge.

Drink your snack.

Try fruit smoothies

Drinkable yoghurt

100% unsweetened juices

Avoid soft drinks

Keep a snack in your back pack or pack an extra snack in your lunch for later.

Take an extra snack for after school activities.

What are some creative snack ideas?

Cereal parfait (layers of fruit, yoghurt and granola)

Baked tortilla chips and salsa

Peanut butter and banana roll ups

Fresh fruit with cottage cheese or yoghurt dip

Homemade trail mix

Whole grain granola bars

Low fat cheese and whole grain crackers

Plain low fat popcorn

Raw vegetables and dip

Hard boiled eggs

Ants on a log (celery sticks with peanut butter and raisins on top)

Ham and cheese on a toothpick

A cored apple filled with peanut butter

Are cereal bars a good choice?

Cereal bars are often more of a sweet treat than a healthy snack. Choose ones that list cereal flour or whole wheat flour as the first ingredient instead of sugar (white or brown sugar, honey or syrup) and that contain at least two grams of fibre and no saturated or trans fats. Pay attention to treats covered in chocolate coating or simulated yoghurt because they can also contain bad fat. Don't be fooled by the mention of fruit on the label – it is often just jam!

What about fruit bars?

It is better to eat whole fruit, but fruit bars made with the purée of real fruit and concentrated fruit juice make an appropriate snack. Opt for those with "no added sugar" and don't forget to brush your teeth afterwards, or eat a piece of cheese to help prevent cavities.

What is the rule of thumb when it comes to snacking?

Choose a snack that contains foods from at least two of the four food groups from Eating Well with Canada's Food Guide.

By planning your snacks just as you would your meals, you avoid making unhealthy snack choices.

Snacks are meant to tide you over, not replace a meal, so it's important to keep portion sizes small.

Key Messages:

Healthy snacking helps to boost your energy throughout the day.

Always have a healthy snack on hand in your backpack, in your gym bag and in an easy-to-access place in the pantry.

Be creative in making your own healthy snacks.

Fortified with Fun:

Brown Bag Olympics

How Sweet It Is?

Fast Food Nation

Now You're Cookin!:

Granola

Apple Peanut Butter Wraps

Pita Chips and Hummus

Resources:

Heart and Stroke Foundation: www.heartandstroke.ca

Dietitians of Canada: www.dietitians.ca

V is for Vitamins

Objective:

To demonstrate the importance of each vitamin and mineral in relation to our body and in what foods to find them.

Processing Prompts:

Where do we find vitamins and minerals?

What is the difference between fat and water-soluble vitamins?

Do all vitamins and minerals play the same role?

Background Information:

What are vitamins?

Vitamins and minerals are substances that are found in foods we eat. Your body needs them to work properly so you grow and develop. When it comes to vitamins, each one has a special role to play.

Are all vitamins the same?

There are two types of vitamins: fat-soluble and water-soluble. Each vitamin has its own specific function and role to play in the body.

What are fat-soluble vitamins?

Fat-soluble vitamins are stored in the fat tissues in your body and in your liver. They stay in your body until they are needed – some can be stored up to 6 months.

Vitamins A, D, E and K.

What are water-soluble vitamins?

When you eat water-soluble vitamins, the vitamins do not get stored in your body. They travel through your blood stream and what your body doesn't immediately use, it is excreted out in your urine.

These vitamins need to be replaced more often as they don't stick around.

These vitamins include vitamin C and the B vitamins.

Which vitamins do I need?

Your body can do a lot of things, but it cannot make vitamins.

That's why food is so important. Your body is able to take the vitamins it needs from the foods you eat because different foods contain different vitamins.

What is so important about vitamin A?

Vitamin A plays a big role in eyesight. It helps you see in colour as well as helps you grow properly and aids in healthy skin.

Foods rich in vitamin A:

- eggs, milk, apricots, cantaloupe, carrots, sweet potatoes

What is so important about the B vitamins?

The B vitamins are a big group:

- B1 (thiamine)
- B2 (riboflavin)
- Niacin
- B6 (pyridoxine)
- Folic acid
- B12 (cobalamine)
- Biotin

  Pantothenic acid (B5)

They help make energy and set it free when your body needs it.

They are involved in making red blood cells that carry oxygen throughout your body. Every part of your body needs oxygen to work properly.

Foods rich in vitamin B:

- whole grains, fish and seafood, poultry, meats, citrus fruits, eggs, milk, pulses

What is so important about vitamin C?

Vitamin C is important for keeping body tissues, such as gums and muscles, in good shape.

It also helps you heal and helps to resist infection. This means that even though you can't always avoid getting sick, Vitamin C makes it harder for your body to become infected with an illness.

Foods rich in vitamin C:

- citrus fruit, cantaloupe, strawberries, tomatoes, broccoli, cabbage

What is so important about vitamin D?

Vitamin D is the vitamin you need for strong bones. It's great for forming strong teeth.

It also helps your body absorb the amount of calcium it needs.

Foods rich in vitamin D:

milk, egg yolks, salmon, sardines

What is so important about vitamin E?

Everybody needs vitamin E. This maintains a lot of your body's tissues such as in your eyes, skin and liver. It protects your lungs from polluted air and aids in the formation of red blood cells.

Foods rich in vitamin E:

- sardines, nuts, egg yolks, leafy green vegetables, whole grains

What is so important about vitamin K?

Vitamin K clots blood. This means when certain cells in your blood act like glue and stick together at the surface of the cut.

Foods rich in vitamin K:

- liver, pork, dairy products, leafy green vegetables

Do I need to take vitamin supplements?

Lots of people wonder if they should take vitamin and mineral supplements.

If your diet includes a wide variety of foods, including whole grain products, fresh fruits and vegetables, dairy products, nuts, seeds, eggs and meat then you are probably getting the vitamins and minerals your body needs.

If you are skipping meals, not eating properly or have special dietary constraints and are concerned that you are not getting enough vitamins and minerals then you should talk to a health professional before taking supplements.

Key Messages:

Vitamins are not made in the body and need to be obtained from foods we eat.

The best way to get all your vitamins and minerals is to eat a variety of foods from all food groups.

Each vitamin has a specific role and works with other vitamins to make sure your body is functioning well.

Fortified with Fun:

Vitamins and Your Body

Now you're Cookin:

It's the Big Dipper Vegetable Party

Raspberry Spinach Salad

Resources:

Appendix A: Vitamins and Mineral Chart

Food Safety

Food Safety

Objective:

To illustrate the importance of food safety and how 4-H members play an important role in preventing foodborne illnesses by following safe food handling practices.

Processing Prompts:

What does food safety mean to you?

What is a foodborne illness?

How can we help prevent foodborne illness?

Background Information:

What is a foodborne illness?

Foodborne illness or food poisoning is caused by consuming foods contaminated with harmful bacteria, food toxins, viruses or parasites.

How do you get harmful bacteria in your food?

Contamination usually arises from improper handling during processing, packaging, transporting, storing or preparing in the home.

Every year between 11 and 13 million Canadians suffer from illnesses caused by foodborne bacteria.

Most cases of foodborne illness can be prevented with proper cooking and handling.

Should I beware of bacteria?

Bacteria are everywhere- the air, the soil and sometimes the water.

Humans carry bacteria in their mouth, nose and intestinal tract, as well as on their face, hands, hair and clothes.

Raw meat and fruits and vegetables also contain bacteria.

With the right conditions, such as moisture and temperature, bacteria will double in number every 20 minutes at room temperature.

What is our role in preventing foodborne illness?

There are three components in food safety:

- People – good personal hygiene
- Food – temperature control and proper food handling
- Facilities – adequate cleaning of work area

Everyone can reduce the risk of contracting a foodborne illness if they learn how to cook, chill, separate and clean.

How can we help prevent foodborne illness?

Personal hygiene plays an important part in preventing the spread of infection through food.

Hand-washing is essential.

Always wash your hands with soap and warm water for 20 seconds (about the time it takes you to sing Happy Birthday).

Dry hands on a disposable paper towel or a clean towel.

Wash your hands after

- Cutting/handling raw meat or fresh produce
- Smothering a sneeze or cough
- Using the washroom
- Touching your hair or face
- Cleaning equipment or work area
- Using the telephone

Keep your fingernails short.

Limit the amount of jewellery.

If you have a cold or flu- do not be in the kitchen.

If you have a cut or wound, make sure to wear a bandage and cover it with rubber gloves.

Long hair should be tied back and if possible, use hair nets.

How can properly separating prevent foodborne illness?

Improper handling of raw products can cause contamination. Bacteria can spread to foods and throughout the kitchen.

Clean and then sanitize counter tops, cutting boards and utensils with a mild bleach solution (1 teaspoon/ 5mL of bleach to 3 cups /750 mL of water).

Use paper towels to clean and wipe kitchen surfaces.

Discard worn cutting boards.

Use one cutting board for fresh produce and another cutting board for raw meat, poultry and fish.

Separate raw meat, poultry and seafood from other foods in your grocery cart and in the refrigerator.

Seal fresh produce in airtight containers or plastic bags and store them on the bottom of the refrigerator.

Never place cooked food back on the plate or cutting board that previously had raw food on it.

Do not use leftover marinade on cooked foods.

How can proper cooking prevent foodborne illness?

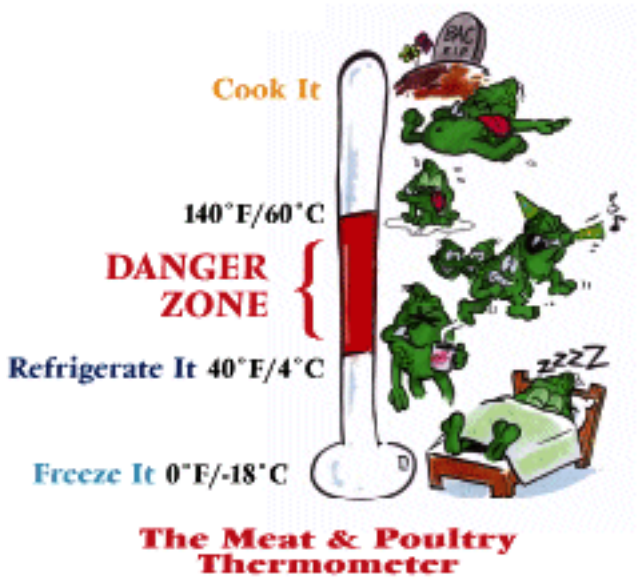
After cooking, keep foods out of the danger zone (4°C – 60°C or 40°F – 140°F) by preparing them quickly and serving immediately.

When eating out, return any undercooked food.

Foods are properly cooked when they are heated for a period of time at high enough temperatures to kill harmful bacteria.

If travelling or going to school, take hot foods in an insulated container.

Use a clean thermometer to measure the internal temperature of cooked foods. Insert the thermometer in different spots to ensure even cooking.



Source: Canadian Partnership for Consumer Food Safety Connection:http://www.canfightbac.org/cpcfse/images/image_library/therm.gif

How can proper cleaning prevent foodborne illness?

Thoroughly wash fresh produce under running water to remove dirt and residue.

Scrub fruits and vegetables that have firm surfaces such as oranges, melons, potatoes and carrots.

Cut away any damaged or bruised areas.

Wash out lunch boxes or bags every night.

Wash your hands with warm soapy water for 20 seconds.

Remember – you can't see, smell or taste bacteria.

How can proper chiling prevent foodborne illness?

Refrigerate or freeze prepared, perishable and leftover food within two hours.

Marinate foods in the refrigerator.

Never defrost foods at room temperature. Thaw food in refrigerator, in cold water or in the microwave.

Separate large amounts of leftovers into small, shallow containers.

Don't overstuff the refrigerator.

When travelling, keep cold foods in the refrigerator or freezer until you are ready to go. Make sure to always include an ice pack.

Keep the cooler in the car, rather than in a hot trunk.

Key Messages:

Everyone can reduce the risk of foodborne illness.

Follow safe food handling practices: Cook, Chill, Separate and Clean.

Bacteria is everywhere.

Fortified with Fun:

Safely Separate

Soapy Solutions

Don't Get Bugged By A Foodborne Illness

Importance of Soap

Food Safety Detective

Internet Activities:

Can Fight Bac: www.canfightbac.org

Now you're Cookin!:

Make Ahead Homemade Burgers

Chicken Fiesta Salad

Resources:

Canadian Partnership for Consumer Food Safety Connection: www.canfightbac.org

Appendix B: Bacteria That Cause Foodborne Illness

Appendix D: Recommended Internal Cooking Temperatures

Best Before

Objective:

To understand how to store foods properly.

Processing Prompts:

What is so important about proper food storage?

What does “first in, first out” have to do with food safety?

What does “best before” have to do with food safety and quality?

Background Information:

What is so important about proper food storage?

Preserves food quality, including nutrients, flavour and texture.

Makes the most of your money by preventing spoilage.

Prevents foodborne illness.

What is the expiration date?

The expiration date is the last day the food should be eaten.

Is it safe to eat food after the “best before” date?

“Best before” dates and “packaged on” dates are important labels to read when grocery shopping.

The “best before” date indicates how long the unopened product will retain its freshness. Once vacuum-packed packages are opened, the best before date no longer applies. The product’s storage life is now the same as if it was a fresh product.

“The packaged on” date tells you the day fresh food was packaged. This date is usually the starting point for how long you can expect the food to stay safe to eat.

What does “first in, first out” have to do with food storage?

“First in, first out” means that you rotate items in the fridge and the freezer so you use the older items first.

Make sure to date freezer items and purchase reasonable amounts of perishable food items so they do not go to waste.

How do we store food properly in the refrigerator?

Always store the most perishable items including meat, eggs, poultry, fish and dairy products in the coldest part of the fridge. You will need to use a thermometer to check to see what the coldest part of your fridge is. Make sure to not store your fragile foods like lettuce and fruit in the coldest area as it will cause them to freeze and spoil.

Do not overload the fridge as this prevents proper air circulation.

Keep refrigerator clean of spills.

Store foods in airtight containers to prevent foods from drying out and to prevent transfer of odours.

Store raw meats, poultry and fish at the bottom of the fridge to prevent the cross contamination of drippings.

How do we store foods properly in the freezer?

Freezer temperatures prevent bacteria from growing, but do not kill them. As foods thaw, they can become unsafe because bacteria that cause foodborne illness can grow. Therefore, it is best to thaw foods in the refrigerator.

Package items for the freezer in moisture and vapour proof wraps or containers. Use only freezer grade foil, plastic wrap or bags, or use freezer paper or freezer containers.

Label all freezer foods with the date and type of food, weight or number of servings.

Can I refreeze fish or meat once it has been thawed?

Thawing and refreezing anything will affect the quality of the food. Ice crystals damage cell structure and freezing may remove moisture from the food.

If the food has been in the refrigerator while thawing and is still partially frozen, then it can be refrozen.

If the food has been thawed in the microwave or thawed completely in the fridge, do not refreeze.

If food has been completely thawed, the safest thing to do is to cook and then refreeze.

What is freezer burn and is it safe to eat products that have freezer burn?

Freezer burn is a dry spot on frozen products. It can be prevented with proper packaging, and any dry spots can be cut away and the food can be eaten safely.

While it is safe to freeze foods in their supermarket wrappings, many packages allow air to get in. To maintain food quality, over wrap packages with airtight foil, plastic wrap or freezer bags. Date packages and use the oldest items first.

How do we store foods properly in the pantry?

Although many staples and pantry items have a long shelf life, buy only what you expect to use within recommended storage times.

To prevent foods from deteriorating in the pantry, store in metal, glass or plastic airtight containers.

Keep containers, as well as commercially canned foods, clean and free of dust, which can drop into the cans after they have been opened.

Treat storage areas for pests by cleaning the pantry periodically to remove food particles. Common pests found in dry storage areas are mice/rats, flies, ants, roaches, etc. The best protection against insects is to be sure there is no food available to them. The eggs or larvae of insects may be present in almost any dried food, even though they cannot be seen. Store all foods in glass, metal or rigid plastic containers. Then, if insects develop, they will be confined to that container and will not be able to spread to other areas.

Key Messages:

Proper food storage is important for food quality and food safety.

Remember “first in, first out.”

Make sure to store the proper food in the proper storage conditions.

Fortified with Fun:

Where it Goes Relay

Quick Chiling Activity

What is a Perishable Food?

Wrap it Up!

Internet Activities:

Can Fight Bac: www.canfightbac.org

Now you’re Cookin!:

Freezer Spaghetti Sauce

Lentil Chili

Resources:

Canadian Partnership for Consumer Food Safety Education: www.can.fightbac.org

Refrigerator and Freezer Storage Chart: www.can.fightbac.org/en/pdf/storage-chart-eng.pdf

Appendix E: Recommended Food Storage Chart

Is Our Food Really Safe?

Objective:

To increase awareness of possible food safety hazards and how everyone from the producer to the consumer is responsible to ensure that our food is safe.

Processing Prompts:

Do you think your food is safe?

What are some food safety hazards?

Who is responsible for food safety?

Background Information:

What is all the fuss with food safety?

In the world, news travels fast. Hardly a week goes by without a media story about food safety.

Now consumers react strongly to real or perceived food safety problems. Markets quickly reflect the consumer demand for particular foods. Food retailers and restaurants change their food orders or specifications. Processors adapt and governments take action.

Each major crisis, and the many smaller incidents that occur each year, creates momentum for changes in food safety procedures.

What are food safety hazards?

It is possible that physical, chemical or biological hazards can pass from the farm into the food chain. These are all serious concerns to governments, industry partners and consumers.

Physical hazards are more obvious, like a tip of a needle that was broken off during an animal vaccination.

Chemical hazards are invisible such as the presence of pesticides on fruit and vegetables or residues of medications in meat, dairy and eggs.

Biological hazards are the most difficult to control. They include foodborne bacteria and the diseases they can cause.

Some of the hazards we can control, reduce or eliminate. Some we can't.

Whose responsibility is food safety?

Food safety is everyone's responsibility includingi food producers and the government.

It is no longer just a matter for the processing plant, the grocery store, the restaurant or the cook at home.

What is the government doing?

Governments around the world have changed their approach to food safety.

Success is now seen as being achieved if every link in the food chain from farm to table, from pasture to plate, does its part to reduce or eliminate food safety hazards.

Governments control and monitor food safety by adopting a procedure called Hazard Analysis Critical Control Points (HACCP).

In 1996, the Canadian government introduced a new food safety strategy. It covers all agricultural commodities using the HACCP principles and aims to ensure international acceptance. Its implementation involves a combination of mandatory requirements, voluntary options and market driven actions.

What do producers do to ensure food safety?

There are many policies and procedures producers can implement such as Good Production Practices (GPP) or Standard Operating Procedures (SOP) or any other form of Good Management Practices (GMP) that are all based on the HACCP principles, which creates a good operational environment for food safety.

By producers implementing these procedures, they can make a solid, positive contribution to our industry's effort to improve food safety and maintain market acceptability both domestically and internationally.

Who else is involved in food safety?

Health Canada is responsible for food safety policy, standard setting, risk assessment and analytical testing research.

The Canada Agricultural Products Act establishes national standards and grades for agricultural products and to regulate the marketing of agricultural products in import, export and interprovincial trade.

The Canadian Food Inspection Agency controls animal disease and plant pests, improving inspection systems, registering and inspecting the plants where food is produced, preventing fraud by ensuring accurate labelling, regulating seeds, feeds and fertilizers, and providing laboratories across Canada.

How is food safety everyone's responsibility?

Farm

- Animals have clean water, nutritious food and a healthy environment
- Farm chemicals are used in a safe manner

Imports

- The government inspects imported foods
- Ingredient labels are checked by government officials
- If a shipment does not meet Canada's standards, it is either destroyed or sent back

Retail

- Grocers and restaurant operators purchase high quality products
- Food is properly stored
- Stores are kept clean and sanitized
- The government checks packaging and ingredient listings
- Government officials inspect grocery stores and restaurants

Processing Plant

- Staff are trained in health and safety issues
- The plants are clean and sanitized
- Quality ingredients are purchased
- Government officials inspect processing plants to ensure food quality and safety

Consumer

- Clean
- Chill
- Cook
- Separate

Government

- The government approves and monitors the use of farm chemicals and livestock medications

Key Messages:

Food safety is everyone's concern.

Government, producers, restaurants and processing plants are all implementing good control practices.

As a consumer it is your responsibility to practice safe food handling to decrease the risk of foodborne illness.

Fortified with Fun:

My Food Safety Practice

Now you're Cookin!:

Bison Barley Stew

Baked Chicken Nuggets

Resources:

Canadian Federation of Agriculture: www.cfa-fca.ca

Canadian Food Inspection Agency: www.inspection.gc.ca

Fundamentals

Reading a Recipe

Objective:

To describe how to properly read and follow a recipe from start to finish.

Processing Prompts:

Why is it important to read and follow a recipe?

What are certain things you should look for in a recipe?

Do you need to prepare before starting a recipe?

Background Information:

What is a recipe?

A recipe is a plan or blueprint to guide you as you cook. Recipes tell you what ingredients you need and how to put them together.

Why is reading a recipe important? It helps a cook to:

Organize and manage their time.

Learn about many different types of foods and utensils.

Create a product from start to finish.

Learn different cooking terms and techniques.

What is the recipe name?

The recipe name tells you what you will be making. Some recipes also give a few words of description about the food or beverage.

What does “servings” mean?

The number of servings indicates the number of people the finished product will feed.

Most recipes are made for a specific number of people; however, to make more you can easily double or triple a recipe, or even cut a recipe in half to make less.

What is the “nutritional analysis”?

This tells you how many calories one serving of the recipe contains.

It might list fat, protein, carbohydrates, fibre, minerals and vitamins in order to help people make healthier food decisions.

What does the “time” refer to?

Time tells you approximately how long it will take to prepare the recipe.

Some recipes will have the time divided into two parts:

- Preparation time:
  - Is the time you will be busy in the kitchen. You could be mixing, mashing or stirring; whatever the instructions say to do.
- Cooking time:
  - Is the time the food is actually cooking in the oven or on the stovetop.

What about ingredients?

This is the list of all of the items you will need to make the recipe.

Make sure you have all of the ingredients before starting the recipe.

Optional ingredients are not critical for the recipe but can be added for extra flavour or to change the recipe.

What are the directions?

The directions tell you the steps you need to take to make the recipe.

Always read the directions first, from start to finish.

What about serving suggestions?

Some recipes suggest ways of serving the dish you are making or other foods to serve alongside it.

Example: Serve with brown rice and asparagus, or serve with tortilla chips.

How should we choose a recipe?

Will the food appeal to family or guests, as well as you?

Do you have all the ingredients needed?

Do you have enough time to make the recipe?

Do you have the cooking skills and equipment required to make the recipe?

Do you understand all of the cooking terms?

Is there more than one format of recipe?

There are two different types of recipes:

- Standard
  - Ingredients are listed first and separate from the method
- Narrative/action
  - Lists ingredients and measurements amongst the method (e.g. In a small saucepan heat 250 mL of water)

Key Messages:

Make sure to read the recipe all the way through.

Make sure you have the ingredients, equipment and skills needed to complete the recipe.

Make sure you have enough time to prepare the recipe.

Fortified with Fun:

Rating Recipe Formats

Now You're Cookin!:

Big Soft Pretzels

Measuring

Objective:

To describe the importance of measuring and how to measure certain ingredients.

Processing Prompts:

Do you need to have special measuring tools when baking and cooking?

Do you need to use different measuring tools for dry and wet ingredients?

What is a heaping cup or firmly packed measurement?

Background Information:

Is it important to be accurate during measuring?

Yes! Its is very important to be accurate during measuring.

Proper measuring is critical to baking. Baking is a science. When you mix ingredients, you're creating edible chemistry, so being precise is important. In a recipe, there is a balance between flour, leaveners, fats and liquids.

As you begin to feel more comfortable, you may feel inclined to experiment a bit.

Can we use the spoons we eat with to measure?

Measuring spoons come in sets of four or six ranging from 1/8 teaspoon (dash) to 1 tablespoon (15 mL).

The spoons that you eat with are not as accurate as graded teaspoons and tablespoons.

Is there a difference between liquid and dry measuring spoons?

You can use the same measuring tools for both liquids and dry ingredients.

For liquids, fill the spoon until it is full.

For dry ingredients, pour or scoop into the spoon until it's full, levelling off the spoon with the straight edge of a spatula or knife.

What do we need to know about measuring cups?

Measuring cups are essential for every kitchen. Measuring cups come in two basic types:

- Dry Measuring Cups:
  - Dry measuring cups range in sizes from 1/4 cup (60 mL) to 4 to 6 cups (1L to 2L) in a set
  - Use these cups to measure dry ingredients and solid fats, such as shortening
  - Usually made of plastic or metal with the measurements on the handle
- Liquid Measuring Cups:

  Liquid measuring cups are available in wide ranges of sizes, the most common being 1 cup (250 mL), 2 cups (500ml) and 4 cups (1000ml)
  - Use these cups for measuring liquids
  - Usually made of glass or clear plastic with a pour spout and the measurement on the side

How do you measure liquids?

Always use a glass measuring cup for measuring liquids.

Always rest the cup on a level surface and read at eye level.

When measuring thick, sticky liquids such as honey, molasses and corn syrup, spray the inside of the measuring glass with non-stick cooking spray or grease with a little oil.

How do you measure dry ingredients?

To measure flour, sugar, breadcrumbs and other dry ingredients, spoon the ingredient lightly into the measuring cup.

Do not shake the cup to make it level.

Take the straight edge of a knife or spatula and level off the ingredient.

What is a heaping cup?

If a recipe calls for a heaping cup, do not level off the cup, instead leave a small mound on top of the ingredients.

What if the recipe calls for a lightly or firmly packed cup?

Sometimes ingredients such as brown sugar, shredded cheese, coconut or herbs are called for as "lightly" or "firmly" packed.

Generally, these ingredients are bulkier and can form air pockets if you just spoon and level.

Apply light or firm pressure to eliminate air pockets and get a more accurate measurement.

Never push the ingredients in so much that you crush the ingredients or you can't get it out of the measuring cup as this may cause you to overmeasure.

How do you measure fats and other solids?

To measure shortening, spoon the ingredients into a cup and pack down firmly with a spoon or spatula to eliminate any air pockets.

These days, bakers don't often have to measure fats because butter and margarine come in conveniently measured sticks and blocks.

For measuring fats, an easy way to keep the cup clean is to line a piece of plastic wrap in the cup before measuring.

Key Messages:

Accurate measuring is very important in baking to ensure a successful outcome.

There is a difference between liquid and dry measures.

Make sure you are using the proper tools when measuring.

Fortified with Fun:

Measuring Relay

Measure Guess

Now You're Cookin!:

Banana Nut Bread

A Grain of Truth – Sunflower Cookies

Manners Matter

Objective:

To learn the importance of table manners.

Processing Prompts:

Do you think manners are important?

What are some manners that you use?

Do you think manners are just stuffy old rules?

Background Information:

What are the benefits of good manners?

Manners help us treat others kindly, so we are respected.

People will want to be around us and be our friend.

Manners help us feel confident in social situations.

How are manners similar to board game rules?

The rules of the game are valuable because they help everyone to have fun and keep people from feeling like there are being treated unfairly.

Manners and rules serve the same function.

Aren't manners just stuffy old rules?

Manners are not just old stuffy rules about how to act at dinner.

Manners guide every aspect of human interaction.

Table manners help elevate a meal and make it more enjoyable.

Manners are more than proper eating, they are about being kind and considerate of others.

Your table manners are one of the first things people will notice about you when you are a guest.

What are some good manners to practice at home?

- Wash your hands before sitting down
- Leave toys, books and pets behind
- When you sit down place the napkin on your lap
- Sit up straight and don't slouch
- Ask politely for dishes to be passed
- Never reach across the table
- Wait until everyone is seated and served before starting to eat
- Keep your elbows off the table
- Never chew with your mouth open
- Never talk with your mouth full of food
- Use utensils quietly without banging them on the table or plate
- Never wave or throw utensils
- Never play with your food
- Never grab food from another person's plate

- Ask politely for seconds, if you want them
- Ask to be excused from the table if you need to go to the bathroom or go to blow your nose
- Clear your plate from the table and take it to the kitchen
- Thank the cook or the host for the meal
- Don't stuff your mouth full of food
- Don't make rude comments about any food being served as it will hurt someone's feelings
- Eat slowly. Don't gobble up the food

What if you can not finish all your food?

In restaurants where you can't always control the portions, there is no problem. Either leave the food or ask for a "doggie bag."

At someone's home, never take more than you can eat and always leave plenty for others. If someone is serving you can always say "just a little helping please."

What about finger foods?

When it comes to fingers, use your head.

Certainly, you eat things like ribs, tacos and corn on the cob with your fingers no matter what company you are in. However, some situations are not so clear cut.

In some cultures, it is polite for people to eat with your hands. So the best rule is to adjust to the standards and customs of the culture you are in.

How do we use good manners with some problem foods?

Soup

- Don't slurp. Insert your spoon at the edge of bowl closest to you and move it away from you as you scoop up your soup. If you rest between sips, park the spoon on the soup plate not in the bowl.

Salad

- Cut the lettuce into smaller pieces before you try to eat it. Point your fork downwards as it helps to pick up the lettuce.

Peas

- Use your knife – not your fingers – to get the peas and other runaway foods onto your fork. Or push them up against other food until they roll onto your fork.

Shish Kabobs

- Take the blunt end of the skewer in one hand and your fork in the other. Point the tip of the skewer downward and use your fork to slide the meat and vegetables on your plate.

Spaghetti

- Using your spoon in one hand and your fork in the other, twirl the spaghetti with the fork prongs on the spoon. Don't get too many strands on your fork at once.

Bread and buns

- Your bun goes on the little plate to the left of your dinner plate. Break off chunks of bread one bite at a time.

Key Messages:

Manners are more than just proper eating, they're about being kind and considerate of others.

Make sure to use your manners at home, at your friend's house, at a restaurant, or wherever you go.

Manners are important and make meals more enjoyable.

Fortified with Fun:

Table Manners

Now You're Cookin!:

Chicken Fiesta Salad

Reading a Food Label

Objective:

To illustrate how to read a food label.

Processing Prompts:

Is it important to read food labels when you are grocery shopping?

What are things you should look for on a food label?

Do you think reading a food label might influence what you choose to eat and buy?

Background Information:

Why is it important to read a food label?

Food labels provide information to help you make informed food choices.

The information on a food label helps you to:

- Evaluate a food's nutritional value
- Know more about the health or nutrition benefits of products
- Compare nutritional value of similar food products
- Identify ingredients that may cause a reaction if you have a food allergy
- Choose foods that are right for you

Are there food labels on everything?

In 2003, Health Canada published regulations requiring food manufacturers to provide specific nutrition information on packaged food labels. The regulations became mandatory for large food manufacturers on December 12, 2005.

Large Canadian food manufacturers are now required to provide a standard food label for most prepared food: breads, cereals, canned and frozen foods, snacks, desserts and drinks. Conventional foods including raw products (fruits, vegetables and fish) remain voluntary.

What is on food labels?

By law, three important pieces of information must be found on the label of most Canadian packaged foods.

#1. The Nutrition Facts Table

- The nutrition facts state the serving size, number of calories and nutrients of that food. It's important to remember that all of this information applies to one serving.
- Serving Size
  - This is provided in familiar units such as cups, grams or pieces. The rest of the information on the table applies to this amount.
- Calories
  - Provides a measure of how much energy you get from one serving of the food product.
- % of Daily Value
  - To see if a food has a little or a lot of nutrients compared to what is recommended.
  - Quick Guide to % of Daily Values
  - 5% or less is low – use for fat, sodium and cholesterol
  - 10 % or less is low –use for saturated and trans fat
  - 15% or more is high – use for fibre, calcium, iron and vitamins A and C

- Nutrient Amounts
  - The nutrition facts table must list 13 core nutrients
  - fat, saturated fat, trans fat, sodium, fibre, cholesterol, vitamin A, vitamin C, calcium, iron, carbohydrate, sugar, protein

#2. Ingredient List

- The ingredient list provides an overview of what is in the food. Ingredients are listed by weight from most to least. Ingredients lists are useful for people with food allergies or those who avoid or limit certain ingredients in foods.

#3. Nutrient Content Claims

- Nutrient content claims tell you about important nutritional features of a food. A food must meet government standards before it can display a content claim about a nutrient.
- A nutrient claim can also highlight a relationship between what you eat and different diseases. For example:
  - No sugar added or unsweetened
  - No salt added or unsalted
  - Low- Products that contain a very small amount of the nutrient
  - Reduced- At least 25% less of a nutrient compared with a similar product
  - Light or lite- The label must say what is light about the food; colour, texture, flavour or reduced (fat, sugar, salt)
  - Source- Product contains a significant amount of the nutrients
  - Free- Products contains an amount so small, health experts consider it nutritionally insignificant
  - Examples of a relationship health claim
  - A healthy diet low in saturated and trans fats may reduce the risk of heart disease
  - A healthy diet rich in a variety of fruits and vegetables may help reduce the risk of some types of cancers

Key Messages:

Reading the food label will help you to make healthier food choices.

Make sure to look at and read the facts table, ingredient list and any health claims when comparing different food products.

Choose a food that is right for you.

Fortified with Fun:

Label Information

Food Grab Bag

Internet Activities:

The Virtual Grocery Store: www.healthyeatingisinstore.ca

Interactive Nutrition Label: http://www.hc-sc.gc.ca/fn-an/label-etiquet/nutrition/interactive/inl_flash_e.html

Now You’re Cookin!:

Egg and Salsa Burritos

Resources:

Health Canada: www.hc-sc.gc.ca

Grocery Shopping

Objective:

To increase skills in grocery shopping.

Processing Prompts:

What are some important guidelines you should follow when you are grocery shopping?

What tips do you use when grocery shopping?

Why is it important to be a smart grocery shopper?

Background Information:

What is the best way to become a smart grocery shopper?

To shop the smart healthy way at the grocery store you need to plan ahead, be in control and read food labels.

How do you plan ahead for grocery shopping?

Plan a weekly menu including breakfast, lunches, supper and snacks with your family.

Make a grocery list by grouping your foods according to the store layout.

Eat a healthy meal or snack before you shop, as being hungry may tempt you to buy more than you need.

Check flyers and coupons for sales.

How do you remain in control?

Shop along the outside edges of the store – this is where you will most always find the four food groups (fruits and vegetables, meat and alternatives, milk and alternatives and grains).

Some packaged foods in the centre aisles are high in fat, salt and sugar.

Read labels carefully and choose wisely.

Skip the snack aisle to avoid any temptation.

Check your local grocery store for tours on how to be a smart shopper.

Only buy what you need to avoid waste.

How can I use my shopping cart to help me make smarter choices?

Split your cart into three parts"

- Think big
  - Use the large basket of your cart when choosing grain products, fruits and vegetables.
- Think smaller
  - Use the little basket when choosing milk products, meat and meat alternatives.
- Think carefully
  - Use the bottom of the cart for “other” foods such as fats and oils and foods high in sugar.

Should I use "Eating Well with Canada's Food Guide" when grocery shopping?

- Absolutely!
- Follow Canada's Food Guide to make wise choices when shopping
- Choose fruits and vegetables that are rich, vibrant colours such as orange, green, blue and purple
- Buy fresh fruits and vegetables in season; however, canned and frozen are also good choices
- Look for grain products with less than 3 g of fat and more than 2 g of fibre per one serving
- Choose whole grain, multi-grain, rye and flax grain products more often
- Choose lower-fat milk products
- For snack foods, carefully read food labels and choose snacks with zero trans fats and low saturated fats
- Check the best before date labels when choosing fresh produce

What about food safety at the grocery store?

Pick up raw products such as meat, poultry and fish and milk products last so they do not stay too long in the danger zone (4^{O}C to 60^{O}C or 40^{O}F to 140^{O}F).

Do not cross-contaminate raw meats and poultry with fresh produce, such as fruits and vegetables, by putting them in the same area of the cart.

Take a cooler to pack perishable food items in the car if travelling long distances or on really hot days.

Put food away as soon as you get home.

Foods that are not going to be used within 1 to 2 days should be frozen.

Key Messages:

You can be a smart shopper by planning, staying in control and reading food labels.

Read food labels carefully and choose wisely.

Plan your grocery list following Canada's Food Guide.

Fortified with Fun:

Food Grab Bag

Psychic Powers

What's for Dinner?

Internet Activities:

The Virtual Grocery Store: www.healthyeatingisinstore.ca

Now You're Cookin!:

Apple Grape Salad

Tofu Stirfry

Resources:

Health Canada: www.hc-sc.gc.ca

Dietitians of Canada: www.dietitians.ca

Well-Stocked Kitchen

Objective:

To describe the basics in stocking a kitchen.

Processing Prompts:

What are some important foods you should have in your pantry?

What are some important foods you should have in your fridge and freezer?

What are some important foods essential for baking and cooking?

Background Information:

What are some foods that you should store in your freezer and fridge that are essential for baking and cooking?

To cook a wide variety of dishes, there are several items you should always have on hand in your fridge and freezer.

- Fridge
  - Eggs – baking
  - Cheese – cooking
  - Milk – baking and cooking
  - Butter – general cooking
  - Carrots/celery – flavour base
  - Lemons
  - Salad greens
- Freezer
  - Chicken
  - Beef
  - Pork
  - Fruits and vegetables
  - Butter
  - Ice
  - Nuts
  - Breadcrumbs

What are some essential pantry items needed for cooking and baking?

Traditionally, a pantry refers to a room or closet set aside for storing dry goods. Today a pantry is any cool, dry, dark area in your kitchen, such as a cupboard, where you store ingredients that do not require refrigeration.

Unopened items can be stored in their original airtight containers. After opening, store these items in airtight containers or resealable plastic bags.

- General cooking and baking essentials
  - Sugar – both granulated and brown
  - Flour – all purpose
  - Oatmeal
  - Cornstarch – thickening agent
  - Baking powder/baking soda – leavening agent
  - Powdered sugar – frostings
  - Vegetable shortening – pie crusts, greasing pans
  - Chocolate products – cocoa, chocolate chips
  - Dried fruit
  - Vanilla extract – flavouring agent
  - Dried pasta, rice, beans and lentils

These items, once opened, must be put in an airtight container and stored in the fridge. Unopened condiments can be stored for about 1 year in pantry.

- Canned goods
  - Tomatoes and tomato based goods
  - Beans
  - Broth
  - Fish
  - Fruit
- Condiments
  - Ketchup, relish and mustard
  - Mayonnaise
  - Liquid honey, maple syrup, jam
  - Salsa
  - Soya Sauce
  - Worcestershire sauce
  - Olives
  - Pickles
  - Oils – canola and olive
- Flavourings
  - Garlic/onions
  - Vinegars – distilled white and balsamic cider
  - Dried herbs
  - Bay leaves
  - Italian seasoning
  - Oregano
  - Rosemary
  - Sage
  - Thyme

- Spices
  - All Spice
  - Chili and onion powder
  - Cayenne pepper
  - Cinnamon
  - Cloves
  - Coriander seeds
  - Cumin
  - Curry powder
  - Dry mustard
  - Garlic powder
  - Ginger
  - Nutmeg
  - Paprika
  - Pepper
  - Salt

Key Messages:

Make sure to store your food safely in its proper location.

Once food is open make sure to store properly either in an airtight container, in a resealable bag or in the fridge.

When baking or cooking make sure you have the right ingredients before you start cooking.

Fortified with Fun:

Where it Goes Relay

What's a Perishable Food?

Now You're Cookin!:

Baked Chicken Nuggets

Dill Sauce

Organize your Kitchen

Objective:

To demonstrate how to organize the kitchen and the essential tools needed for baking and cooking.

Processing Prompts:

What are some essential tools and appliances every kitchen should have for baking and cooking?

Where does the hand soap go in your kitchen?

What do you store underneath the sink?

Background Information:

How can you organize your kitchen without moving the stove and fridge?

You may not be able to change the location of your fridge or stove, but by changing where your kitchen tools, foods and small appliances are stored, you can make your kitchen feel brand new for effective cooking and baking.

How do you organize your kitchen?

- Keep a clear area of countertop close to your stove for food preparation
- Keep the countertop free of clutter such as books and toys
- Store small appliances you use regularly on the countertop
- If possible place your toaster, coffee maker and kettle in one area as it becomes an efficient breakfast station
- Store utensils such as whisks, spoons and tongs close to the stove
- Store pots and pans close to the stove
- Store dishes and glasses in a cabinet close to the dishwasher or sink area
- Group together and store related foods together

What do you store under the sink?

Only use the cabinet under the sink for storing cleaning supplies and garbage.

This area is prone to high humidity and occasional leaks.

What should you have around the sink?

Liquid hand-washing soap to get you in the habit of washing your hands before, during and after cooking or baking.

Liquid dish detergent and paper towels to make cleaning up more efficient.

What are some essential kitchen tools needed for baking and cooking?

Stocking up on some basic kitchen tools can help make cooking easier and more enjoyable. The right tool can even help you become a more efficient cook by cutting down on the time spent in the kitchen.

- Cutting boards (one designated specifically for raw meats, poultry and fish)
- Mixing bowls
- Strainers
- Vegetable peeler
- Measuring tools – liquid and dry cups and spoons
- Whisks
- Rubber spatulas
- Food thermometer

- Grater
- Potato masher
- Tongs
- Spoons – wooden and serving
- Ladle
- Knives – chef, bread and paring knife
- Cookware
  - Saucepan
  - Stock pot
  - Skillet
  - Roasting pan
  - Crock pot
- Bakeware
  - Baking sheets
  - Cooling rack
  - Round cake pans
  - Square/rectangular baking pans
  - Muffin pans
  - Pie plate
  - Loaf pans
  - Casserole dishes
  - Appliances (Food processor, Blender, Mixer)

Key Messages:

By organizing your kitchen you can make it a safe efficient place to cook and bake.

Before baking and cooking make sure you have the right tools to make that recipe.

Store your tools, appliances and food in a way that makes it easy for you and your family.

Fortified with Fun:

Utensil Guess

Psychic Powers

Now You're Cookin!:

Classic Belgium Waffles

Yoghurt Dip

Cook it Right

Slow Cooking

Objective:

To illustrate the convenience and benefits of slow cooking.

Processing Prompts:

How does a slow cooker work?

Why are slow cookers called slow?

What are the benefits of slow cooking?

Background Information:

How does a slow cooker work?

A slow cooker is a glazed ceramic container or crock, housed in an outer metal casing. In the metal case is an electric heating element. A tight fitting clear dome lid allows condensation to run down inside forming a water seal that aids in the retention of flavour and heat.

Why is a slow cooker called "slow"?

Slow cookers cook foods slowly at a low temperature – generally between 75°C –135°C (170°F- 280°F).

Some foods can take up to 8 hours to cook at the low temperatures.

What are advantages of slow cookers?

Convenient and saves time

- With advanced planning, a meal can be prepared in the morning and ready to eat after school.

Money saver

- Less expensive, less tender cuts of meat become tender when cooked in a slow cooker.
- By preparing homemade soups, stews, casseroles or desserts in the slow cooker, money is saved in comparison to ready to eat products.
- Uses less electricity and creates less heat in the kitchen than an oven.

Improve nutritional costs of meal

- The food cooks slow at low temperatures so vitamins and minerals are retained.
- Ready to eat, convenient, pre-packaged foods can be high in sodium, fats and sugar. By preparing the food at home in a slow cooker you can:
  - Use low sodium or sodium-free broths; eliminate salt in recipes by substituting with flavourful herbs and spices.
  - Use lean cuts of meat and skinless poultry.
  - Reduce the sugar in desserts by substituting 100% fruit juices for sugar or water.
  - Introduce whole grains, vegetables and fruits into your slow cooker meals.
  - Slow cooker meals can be delicious. With slow cooking, flavours have time to develop and vegetables absorb the flavours.
  - Safe to eat – the direct heat from the slow cooker, the lengthy cooking time and the steam created with the tightly covered container combine to destroy bacteria and make the slow cooker a safe process for cooking foods.

What are some slow cooker food safety tips?

Begin with a clean slow cooker, utensils and work area. Wash hands well before and during cooking.

Keep perishable foods refrigerated until preparation time.

If you cut up meat, poultry and vegetables in advance, store them separately in the refrigerator.

Thaw frozen meat and poultry in the fridge.

Do not use the slow cooker to cook large pieces of meat if the water level does not almost cover.

The water or stock level should almost cover the ingredients to ensure effective heat transfer.

Do not overload the crock pot.

Do not lift the lid during the cooking process. Each time you lift the lid, the internal temperature drops 10-15 degrees and the cooking process is slowed by 30 minutes.

Use an accurate food thermometer to test the doneness of the food.

Never reheat leftovers in the slow cooker.

Make sure to remove the contents from the slow cooker to eat immediately or put in shallow containers to cool in order to be put in the refrigerator or freezer.

Why are slow cookers coming back in style?

Slow cookers were very popular in the 1970s.

Today everyone wants healthy delicious home cooked meals; however, with the demands of a busy day, it's hard to resist the convenience of take out or commercially prepared foods.

Dietitians of Canada encourage Canadians to return to the simple pleasures of cooking and eating at home together as a family. A slow cooker can help make this a reality.

Key Messages:

Slow cookers are a convenient way of cooking for people "on the go".

Cooking your meals can save you time and money.

Preparing your own meals is healthier than buying pre-packaged meals or heading to the drive-thru.

Fortified with Fun:

Fast Food Nation

What's For Dinner?

Now You're Cookin!:

Slow Cooker Beef Stroganoff

Food Preservation

Objective:

To demonstrate common types of food preservation including freezing and dehydration.

Processing Prompts:

What is food preservation?

What are methods of food preservation?

What are some benefits of freezing and dehydration?

Background Information:

What is food preservation?

Food preservation is the process of treating and handling food in such a way as to stop or slow down spoilage to prevent foodborne illnesses while maintaining nutritional value, density, texture and flavour.

What are methods of food preservation?

Common methods of food preservation include:

- Drying
- Freezing
- Canning
- Pickling
- Smoking
- Vacuum Packing
- Curing (salting)
- Sugar

What is dehydration?

Dehydration gently evaporates the moisture content of the food.

Dehydration of food is one of the oldest methods of preserving food. Before refrigeration had been invented, foods from the garden had to be eaten or they would perish. People would hang their foods out to dry like laundry and then they could be stored for months.

Using a food dehydrator has many advantages and provides an opportunity for a whole new variety of exciting flavours and textures.

Take your dried food on a hike, in your backpack, for a snack or use dehydration to store your summer vegetables all year long.

How does dehydration work?

Bacteria, yeasts and molds need a food source and water to grow. When we dehydrate food, we remove most of the water and prevent this growth process.

Drying also slows down the action of the enzymes in the food, which are naturally present in foods causing them to ripen and spoil.

How do you dehydrate foods?

There are three ways of dehydrating foods:

- Sun drying
  - Hot, dry, breezy days are the best with a minimum temperature of 100°C. It takes several days to dry fruits and vegetables outdoors. Because weather is uncontrollable, drying fruits and vegetables can be risky.
  - This works well for herbs and onions.
- Oven drying
  - You must be able to sustain a temperature below 100°C and you will need to prop open the door to maintain air circulation during drying.
- Food dehydrator
  - Is the most efficient way of drying foods because of the proper air circulation and closed container.

How do you prepare foods for dehydration?

All vegetables should be washed, sliced and blanched with the exception of mushrooms, peppers and onions. Onions should remain in their skins, while peppers and mushrooms should only be washed.

All fruit should be washed, pitted and sliced.

Purée ripened fruit for fruit leathers.

Yoghurt can also be used to make yoghurt chips.

For meats, make sure they are sliced thinly and that most of the fat is removed.

How long does it take to dehydrate food?

Most foods take 6 to 15 hours to dry. This is determined by the moisture content and thickness of the food.

You will know your food is dried when you touch it and it's leathery with no air pockets. Meat should be tough but shouldn't snap apart. Vegetables should be tough but can also be crisp. Fruit should contain no moisture beads.

How do you store dehydrated foods?

Keep in mind that no moisture should be allowed to enter the container as dried foods absorb moisture from the air, so the container or Ziploc bag must be airtight.

If storing fruit leather or jerky, wrap in plastic wrap and store in an airtight container.

Store your containers of dried foods in a cool, dry place.

How do you use dried fruit?

You will need to soak or cook your dried foods before using them in recipes.

Vegetables are usually soaked 1/2 to 1 1/2 hours and then simmered, so that they can be re-hydrated while they are cooking.

Fruits are soaked and then cooked in the water they were soaked in.

Fruits can be eaten in their dried state.

Remember that after a food is rehydrated it spoils quickly, so use promptly.

What are the benefits of freezing?

It is a quick and easy method of preserving food.

Keeps the colour and flavour of foods.

Keeps most of the original food value, which means that the foods will retain most of their vitamins and minerals.

Results in an attractive food product, almost the same as fresh foods.

Food security – knowing you have food in case of an emergency.

Makes it possible to enjoy a great variety of seasonal foods all year around.

Allows you to plan ahead as you know what you have in your freezer to prepare.

Saves you time as you don't have to shop as often.

Freezing your own foods and leftovers can be more economical than buying pre-packaged frozen foods.

How do you freeze food?

1. Select only fresh foods of good quality
2. Make sure you wash any fresh produce
3. Prepare foods quickly. Make sure to refer to freezing fruits and vegetable charts about cleaning, cutting, blanching (if needed) and packing
4. Pack in odourless, tasteless and moisture-proof freezer containers, bags or wrapping to protect from freezer burn (drying out) or absorbing flavours
5. Label your containers/packages with amount, contents and date. Example: 1 cup (250 mL) carrots, June 05/07
6. Freeze foods at -18°C or lower immediately after packaging
7. Store foods at -18°C or lower. Avoid opening deep freezer often or leaving door open for long periods of time. If deep freezer is less than half full, cover food with a blanket or towels to fill space
8. Thaw frozen foods in the refrigerator
9. Do not overcook your frozen vegetables

What is blanching?

Blanching is a cooking term that describes a process of food preparation:

· A vegetable is plunged into boiling water, removed after a brief timed interval and finally plunged into iced water to halt the cooking process.

Most vegetables must be blanched before freezing to destroy enzymes that change its flavour, colour and texture.

What is the purpose of blanching?

Peeling

· Blanching loosens the skin on some fruits or nuts, such as onions, tomatoes, plums, peaches or almonds.

Flavour

· Blanching enhances the flavour of some vegetables, such as broccoli, by releasing bitter acids stored in the cellular structure of the foods.

Appearance

· Blanching enhances the colour of some (particularly green) vegetables by releasing gases trapped in the cellular material that prevent the total greenness of the chlorophyll.

Shelf Life

· Blanching neutralizes bacteria and enzymes present in food, thus delaying spoiling. This is what is often done as a preparation step for freezing vegetables.

How do you blanch vegetables?

Bring water to a rapid boil in a large covered pot or blancher.

- You will need 4 L (16 cups) water for every 500g (1 lb) vegetables
- For 1 lb of leafy vegetables use 8 L (32 cups) of water

Place clean trimmed vegetables in a wire basket and place in the pot. Replace cover and immediately begin to count blanching time found in Appendix C: Vegetable Blanching chart. Keep heat on high to bring water quickly to a boil.

Under blanching will not destroy enzymes, and over blanching will start to cook the vegetables, resulting in loss of texture, nutrients and flavour. Blanching time guidelines should always be followed.

Once blanching is finished, remove from boiling water and immediately plunge into pan of ice-cold water to stop the cooking process. Place vegetables into strainer and let drain.

What do you freeze food in?

Freezer bags

- Plastic bags store easily, pack well and cost less than other freezer packaging
- Use only bags made for freezing
- To close a freezer bag, press out as much air as possible or use a straw to suck extra air out of the bag
    - Do not reuse the straw
    - Do not reuse freezer bags

Freezer containers

- Plastic
    - Select containers with tightly fitting lids, leaving head space of 1/2 inch – they may be reused – make sure there are no cracks or leaks
- Aluminium
    - Foil containers are rigid and can be used right from the freezer to cooking
    - Some have covers that seal tightly while others can be covered with plastic wrap and tinfoil

How do you freeze fruits?

- Select only fresh fruits of good, ripe quality

Wash fruits. Gently spray or quickly dip the fruit in cold water to avoid fruit becoming water logged or bruised. Prepare fruit quickly.

- Some fruits need to be packed in sugar to preserve the flavour, texture and appearance
- It is important to refer to the freezing fruits chart to determine if you will need to add sugar or not

What is canning?

Canning is a procedure that applies heat to food in a closed glass jar to prevent natural decaying.

Since the jar is sterile, it does not spoil; however, once the can is opened the contents must be refrigerated.

What is pickling?

Pickling is a process of preserving food by fermentation of brine (salt water solution) and an acid (vinegar).

The low pH preserves and kills the bacteria in a jar of pickles.

Key Messages:

Make sure to refer to the blanching guideline times of vegetables.

Dehydration allows you to try a variety of flavours and textures.

Freezing allows you to prepare ahead and enjoy seasonal vegetables all year around.

Fortified with Fun:

Where it Goes Relay

Quick Chiling Activity

Now You're Cookin!:

Freezer Salsa

Strawberry Freezer Jam

Resources:

Canadian Produce Marketing Association: http://www.cpma.ca/

Appendix C: Fruit Freezing Chart and Vegetable Blanching Chart

Baking

Objective:

To introduce the basics of baking.

Processing Prompts:

What are some common foods that require baking?

What is the first step you should take before baking?

How do you know if your baking is done?

Background Information:

What is baking?

Baking means to cook food in an oven using dry heat.

Part art and part science, baking involves combining ingredients in the right proportions, using the proper equipment and cooking at a specific consistent oven temperature.

While you can bake almost any food, baked goods are commonly referred to as cookies, cakes and loaves.

What is the first step to follow in baking?

The first step in successful baking is to read the recipe carefully and gather the ingredients before you start.

While gathering the ingredients, make sure you take the time to prepare the ingredients as instructed in the recipe.

What tools do you need for baking?

Before you begin mixing ingredients, make you use the right type of equipment.

Make sure you use the type and size of pan specified in the recipe.

Assemble all of the baking tools you will need to prepare your recipe, such as pans, whisks, spatulas, pastry brushes and mixing bowls.

Is measuring important in baking?

Accurately measuring ingredients is critical.

While improvisation and guessing may work in other methods of cooking, it can have disastrous consequences in baking.

Make sure you are using the right tools for measuring ingredients (liquid vs. dry).

What is the best way to mix in baking?

A recipe will specify the mixing times and techniques you must follow in order for baked goods to turn out properly.

Use a kitchen timer to keep track of mixing times so you don't over or under mix ingredients.

What about the oven?

To prepare for baking, allow the oven to preheat to the specified temperature for 20 minutes before baking.

Avoid opening the oven door during baking as this will allow heat to escape and will cause the oven temperature to vary, which may disrupt the overall baking outcome.

You should only open to the oven door to check for doneness.

How do I know my baking is done?

When a recipe says to "bake until done", that sounds like a specific instruction, but really, you must learn what constitutes doneness and use your judgement.

Check the baking at the earliest time specified in the recipe – you can always bake longer if needed.

A toothpick inserted in the centre of the cake will come out clean or with a few crumbs clinging to it. If uncooked, the batter and wet crumbs will cling to the toothpick.

When a cake is done, the edges will also begin to pull away from the sides of the pan. This is an indication that the internal cake structure is firm and will hold after the cake is removed from the pan.

Quick breads should be golden in colour and slightly darker around the edges. A large crack down the centre is normal as a long as the inside of the crack does not look wet.

Cookies should be an even golden brown in colour.

For yeast breads, use an instant-read thermometer to be absolutely sure when your bread is done.

- Crust should be even, bread will pull away from the sides of the pan and when you tap lightly on the bread, it should sound hollow.

How do you properly cool your baking?

Baked goods must be cooled carefully before serving. Some goods are served out of the pan while others are cooled on a cooling rack.

Place the pan on a cooling rack and let it stand for 10 –15 minutes. Run a knife along the inside edge of the pan, place the cooling rack or plate over the pan and turn upside down.

Key Messages:

It is very important to make sure you have the proper ingredients and equipment needed before starting a baking project.

Baking is a science that involves careful measuring and following of instructions.

Use the best method and your judgement to check for doneness.

Fortified with Fun:

Measure Guess

Measuring Relay

Now You're Cookin!:

Chocolate Chip Zucchini Cake

"Gone Camping" cookies

Grilling

Objective:

To demonstrate the basics and safety of grilling.

Processing Prompts:

Is grilling and barbequing the same thing?

What are the benefits of grilling?

What are some safety tips for grilling?

Background Information:

What is grilling?

Cooking over an open fire is the oldest food preparation technique known to humanity and it's still one of the most universal.

It is a dry heat cooking method whereby the heat is radiated from below and transferred to a metal grid.

Are barbequing and grilling the same?

People often use the term "barbeque" when referring to foods that are grilled, but barbequing and grilling are two completely different cooking processes.

Barbequing:

- Refers to foods that are cooked using a long, slow process, using indirect low heat.
- The cooking chamber fills with smoke giving the food its characteristic smoked flavour.
- The best temperature for barbequing is between 200°F (93°C) and 300°F (148°C). If the temperature rises above 300°F (148°C), it is considered grilling.
- Is typically done over charcoal or wood, although gas can be used. The meats usually used are tougher cuts as the meats benefit from the long slow process, becoming tender.

Grilling:

- Grilling refers to foods that are cooked quickly and directly over high heat.
- Grilling temperatures typically reach 500°F (260°C) or more, but any temperature above 300°F (148°C) is considered grilling temperature.
- The high heat of grilling sears the surface of meat creating a flavourful browned crust.
- Grilling is generally done over a gas flame or hot coals. Tender cuts of meat are best for this cooking method. The quick cooking and the high heat seal in the juices.

What are the benefits of grilling?

As no fat is used in the cooking process and melted fat is lost, this cooking method is favoured by health experts.

You can grill everything including meat, poultry, fish, vegetables and even fruit.

What about grilling and food safety?

Cleaning

- Grills need annual cleaning by scouring the grate with a wire brush. Spray the grid with a cleaner and rinse thoroughly. Before each use apply non-stick cooking spray to prevent food from sticking to the grill before you turn on the grill.

From the store

- When shopping for meats, poultry or fish buy them just before heading to the checkout. Separate meats from other foods to prevent foodborne illness.
- Place the food in the fridge immediately after you get home. If you're not going to use the meat within one to two days, put in freezer.

Defrost

- Completely defrost meat, poultry and fish before grilling so it cooks more evenly.
- Use the refrigerator for slow, safe thawing.

Marinating

- Meat and poultry can be marinated for several hours to tenderize or add flavour.
- Marinate food in the fridge, not on the counter.
- Do not reuse marinade on cooked meats. If you want to save marinade, leave some aside before adding raw meat.
- Keep food cold
  - Keep meat and poultry in the fridge until ready to use and then immediately place on grill.
- Cook thoroughly
  - Cook food to a safe internal temperature to destroy harmful bacteria.
  - Meat and poultry cooked on a grill often brown very fast on the outside. Always use a food thermometer to be sure the food has reached a safe internal temperature.
  - Never partially grill meat or poultry to finish later.
- Keep hot food hot
  - Keep fully cooked meat, poultry and fish hot on the grill until ready to serve.
- Serving the food
  - When taking the food off the grill, use a clean platter.
  - Don't put cooked food on the same platter that held raw meat, poultry or fish.

What are some tips for being safe for grilling and barbequing?

- Do not wear loose clothing
- Use long handled barbeque tools and flame-resistant mitts
- Never leave the grill unattended
- Keep flammable liquid away from the fire
- Have a fire extinguisher, a garden hose or at least a large container of water close by in case of a fire
- Make sure the grill is at least 10 feet away from your house, garage or trees

Key Messages:

Make sure to follow safe food handling practices when grilling.

Choose the best cooking method for you, based on time and type of meat.

Also, use a meat thermometer to check for doneness.

Fortified with Fun:

Food Safety Detective

Don't Get Bugged By a Foodborne Illness

Now You're Cookin!:

Foil Dinner Wrap

Breads

Objective:

To demonstrate how to properly bake quick breads and yeast breads.

Processing Prompts:

What is the difference between quick breads and yeast breads?

What are common leavening agents in baking?

What are some common steps to follow with yeast breads?

Background Information:

What is a quick bread?

A quick bread is a type of bread that is leavened with chemical leaveners such as baking powder, sodium bicarbonate or cream of tartar rather than yeast.

The chemical leavening agents react quickly when combined with liquid ingredients, causing the batter or dough to being rising immediately. For many quick bread recipes, the wet and dry ingredients are mixed separately and then combined for baking.

Unlike yeast breads that need time to rise, quick breads are ready to go into the oven in minutes.

What are common chemical leavening agents used in baking?

Baking soda

- Is a bicarbonate of soda, which is a prime ingredient in baking powder.
- It is an alkaline and when combined with an acid, it creates carbon dioxide bubbles, giving rise to dough and batters.
- Since it reacts with water it should be mixed thoroughly with dry ingredients before adding liquids to ensure proper leavening.
- Is normally used when sour milk, butter milk or other acidic liquid is used.

Baking powder

- Is a blend of an acid and an alkali (baking soda).
- When water is added, a chemical reaction occurs producing carbon dioxide, which is trapped in tiny air pockets in the dough and batter.
- Heat releases additional gas and air to create steam. The pressure expands the trapped air pockets, thus expanding the overall food.
- If you find yourself without baking powder you can make your own
    - Mix 1/2 teaspoon (2.5 mL) of cream of tartar with 1/4 teaspoon (1.25 mL) of baking soda

How does the yeast work in yeast breads?

Yeast is an organism that multiplies rapidly when fed sugar in a moist environment.

As the yeast feeds on sugar, it creates two digestive by-products – alcohol and carbon dioxide. The carbon dioxide leavens the bread, producing a light fluffy texture, and the alcohol evaporates.

Is all yeast the same?

There are three different forms of yeast used in baking.

Compressed/ Cake yeast

- Fresh yeast that is most commonly used by commercial bakers. It only lasts for one to two weeks.

Active dry yeast

- Most commonly available for home bakers. It can be found in packets or in jars that must be stored in the fridge after opening.
- It must be mixed with water before being mixed into the flour.

Instant yeast

- Comes in smaller granules than active dry yeast. It absorbs liquid rapidly and does not need to be hydrated before being mixed into the flour.

Why do you need to "proof" yeast bread?

The term "proof`" in bread has two meanings – one having to do with the yeast and the other having to do with the dough.

Yeast is proofed in warm water and a small amount of sugar to determine whether it is active before using.

Proofing refers to a stage in the rising of the dough. The dough is shaped into its final form and left to sit for a few minutes for its final rise, which is known as proofing.

What are the steps in proofing?

1. Depending on what type of yeast you are using you will need to dissolve the yeast and sugar in warm water and let stand for about 5 minutes. If the yeast is foamy and smells like bread, it's active. You do not need to do this step if using instant yeast.
2. Gather the kneaded dough into a ball and cover with a floured linen towel, a piece of plastic wrap or another cover. The covering of the dough prevents moisture loss and contamination of the yeast.
3. Allow dough to rise undisturbed. The dough is done when it approximately doubles in size and does not spring back when poked with finger.
4. Punch the dough down. This relieves stress on the dough, squeezes out unwanted gas and redistributes the yeast.
5. Form the bread into loaves, then cover and let rise again. Cover with a damp towel. The second rising usually takes half as long as the first rise.
6. Be ready to bake as soon as the dough has finished rising.

Why is kneading the dough important?

Kneading does three crucial things for the bread:

1. Distributes the yeast and other ingredients evenly.
2. Introduces air into the dough.
3. Develops the gluten in the dough.
   - The gluten, or wheat protein, allows the dough to stretch instead of collapsing when the yeast grows inside.
   - If gluten is not developed, the dough will not rise and will produce a heavy loaf.

How do you knead dough properly?

1. Turn the dough onto a clean, lightly floured work surface.
2. Flour your clean hands well.
3. Use the heel of your hands to compress and push the dough away from you, and then fold it back over itself.
4. Give the dough a little turn and repeat step 3. Put the weight of your body into the motion and get into a rhythm.
5. Keep folding over and compressing the dough until it becomes smooth and slightly shiny, almost satiny.
6. The most common test for doneness is to press the dough with your finger. If the indentation remains it is ready for rising.

What are some yeast bread cures?

Traditional yeast breads are high and evenly shaped, uniformly golden or dark brown and even in texture with no large air holes.

Not high

- Water too high for yeast
- Too little flour
- Not kneaded enough
- Rising time too short
- Pan too large

Coarse texture

- Rising time too long
- Too little flour
- Not kneaded enough
- Oven too cool

Dry and crumbly

- Too much flour
- Not kneaded enough

Large air pockets

- Dough not rolled tightly when loaf was shaped

Yeasty flavour

- Rising time too long
- Temperature too high during rising time

Key Messages:

Quick breads use chemical leavening such as baking soda and baking powder.

Yeast breads use yeast as a leavening agent.

Proofing and kneading are very important steps in making yeast breads.

Fortified with Fun:

Bread in a bag

Yeast Balloon Blow Up

Now You're Cookin!:

Big Soft Pretzels

White and Brown Bread

Candy

Objective:

To demonstrate the stages in candy making.

Processing Prompts:

What are the stages of candy?

Are caramels and caramelizing the same thing?

How can you tell when candy has reached its highest temperature?

Background Information:

What is candy making?

Candy making is an exact science where sugar is the main ingredient. In all cases, each type of sugar-based candy starts out the same. Crystalline sugar, sometimes corn syrup, is dissolved in a liquid (usually water) to make a sugar solution, which is then boiled into sugar syrup. This is done to a certain temperature, concentration and colour depending on the recipe. The solution may be stirred at predetermined times, cooled and shaped in a certain way, resulting in different types of candy and texture.

What is a cold-water sugar test?

As the sugar syrup is cooked and the water boils away, the sugar concentration increases and the temperature rises.

The highest temperature that the sugar syrup reaches will tell you what the syrup will be like when it's cooled.

For best results and most accuracy, it is recommended that you use both a candy thermometer and the cold water test.

What are the stages of candy?

Thread stage (230°F – 235°F/ 110°C -113°C)

- 80% sugar concentration
- When you drop a little of this syrup into cold water it forms a liquid
- This syrup is best used over ice cream

Soft ball stage (235°F – 240°F/ 113°C -115°C)

- 85% sugar concentration
- This sugar syrup dropped into cold water will form a soft flexible ball, but once removed it will flatten like a pancake
- Fudges and pralines

Firm ball stage (245°F – 250°F/ 118°C -121°C)

- 87% sugar concentration
- This sugar syrup will form a firm ball in cold water and will not flatten when removed
- Caramels

Hard ball stage (250°F – 265°F/121°C -129°C)

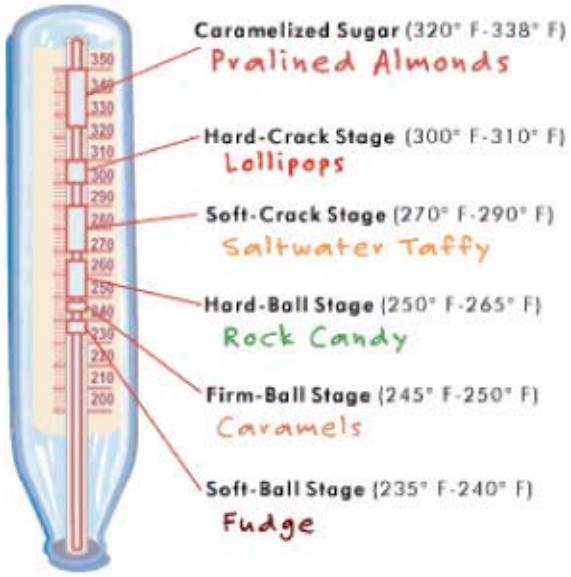
- 92% sugar concentration
- This syrup will form thick, ropey threads as it drips from the spoon
- In cold water will form a hard ball and when it's removed from water it will remain hard but malleable
- Nougat, marshmallows, gummies, rock candy

Soft crack stage (270°F – 290°F/132°C -143°C)

- 95% sugar concentration
- As the syrup reaches soft crack stage the bubbles on top become smaller
- When you drop the syrup in cold water it will solidify in threads that when removed, are flexible, not brittle, and will bend slightly
- Saltwater taffy and butterscotch

Hard crack stage (300°F – 310°F/149°C -154°C)

- 99% sugar concentration
- Is the highest temperature you are likely to see specified in a candy recipe
- Drop a little syrup in cold water and it will form hard, brittle threads that break when bent
- Toffee, nut brittle and lollipops



Source: Science of Cooking: Candy, www.exploratorium.edu/cooking/candy/index.html

What is caramelizing?

If you heat a sugar syrup to temperatures higher than any of the candy stages you will be on your way to creating caramelized sugar (the brown liquid stage), which is a rich addition to many desserts.

Clear liquid stage (320°F/160°C)

- 100% sugar concentration.
- Water has been boiled away and remaining sugar is liquid and light amber in colour.

Brown liquid stage (338°F/170°C)

- 100% sugar concentration.
- Now the liquefied sugar turns brown in colour due to caramelizing. The sugar is beginning to break down and form many complex compounds that contribute to a richer flavour.
- Used for dessert decorations or nut coatings.

Burnt sugar stage (350°F/180°C)

- 100% sugar concentration.
- Above 300°F/150°C the sugar begins to burn and develops a bitter burnt taste.

Are caramels and caramelizing the same?

Caramels are the chewy candies made from cooking sugar, cream, corn syrup and butter at 245°F/ 118°C.

- The brown colour comes from the reaction between the protein and sugar.

Caramelizing happens when pure sugar reaches 338°F/170°C. The temperature causes the sugar compounds to break down.

Why do you pull taffy?

The final important step in making taffy is pulling it, stretching it out and folding it in half over and over again.

Pulling taffy incorporates tiny air bubbles throughout the candy making it lighter and chewier.

What are some candy-making tips?

Always make candy on a cool dry day.

Candy mixtures should boil at a consistent temperature.

Working with boiled sugar can be dangerous because its extremely hot and it can burn you.

A candy thermometer is the most accurate way of testing the temperature of sugar.

Don't double a candy recipe. Rather, make two separate batches.

All sweets are cooled slightly before being shaped. How the solution is cooled will affect the type of candy.

- Cooling quickly forms brittle candy – take candy directly from heat to the fridge or freezer to cool.
- Slow cooling forms taffy or caramels – take candy directly from heat and set aside at room temperature to cool.
- Fudge is cooled slowly then stirred again.

Use the candy temperature chart.

Follow recipes carefully.

Does sugar cause bad teeth?

The real problem isn't the sugar we eat but rather the streptococcus bacteria in our mouths that like to feed on sugar.

When bacteria feeds on sweet treats or carbohydrates lodged in your teeth, they excrete acids that eat away your tooth enamel.

Make sure you brush and floss your teeth after eating sugary treats.

Key Messages:

To accurately test candy, use a candy thermometer.

The stages of candy are very important to follow when making your candy.

Always brush and floss your teeth after eating sugary foods.

Fortified with Fun:

Monster Mallows

Rock Candy

Snow taffy

Internet Activities:

Candy-o-Matic: http://www.exploratorium.edu/cooking/candy/Cando.html

Now You're Cookin!:

Candied Apples

Peanut Brittle Deluxe

Backyard and Beyond

Flavours of Canada

Objective:

To inform members of the foods found across Canada.

Processing Prompts:

What is a typical Canadian food?

What are foods that are native to your province?

What are the benefits of buying local?

Background Information:

What does cuisine mean?

Cuisine is a style or method of cooking of a particular country, region or establishment. It is often based on the foods available in the region or country.

What is Canadian cuisine?

Canadian cuisine varies widely from region to region. Generally, the traditional cuisine of English Canada is closely related to British and American cuisine, while the traditional cuisine of Quebec and French Canada evolved from French cuisine and the winter provisions of fur traders.

Canadian cuisine is sometimes described as a "multicultural tossed salad". Our cuisine has been influenced by many other cultures and countries. Our ingredients of the land and sea link us with our past, present and future.

The cuisine of the western provinces is heavily influenced by German, Ukrainian, Polish and Scandinavian cuisine.

The traditional cuisine of the Canadian Territories is based on wild game and Inuit and First Nations cooking methods.

The cuisine of the Maritimes derives mainly from British and Irish cooking. British Columbia also follows British cuisine traditions.

Why are Canadian foods hard to describe?

Today's recipes for traditional Canadian foods are very hard to find because the palate of the nation graduated to more sophisticated or worldly foods.

With the increase in immigrants from all over the world and imported food, many new techniques in food preparation have been adapted.

What are common foods found across the Canadian provinces?

British Columbia

- Salmon, Apples, Grapes, Pine mushrooms, Vetch flower honey, Hazelnuts, Huckleberries

Prairie Provinces: Manitoba, Saskatchewan, Alberta

- Winnipeg Goldeye, Pickerel, Trout, Wild rice, Beef, Bison, Saskatoons, Flax oil, Canola oil, Rhubarb, Wild mushrooms, Prairie oysters, Prairie gold honey, Beans/pulses, Breads, Wild berries (raspberries, blueberries), Rosehips, Prairie chickens, Ducks

Ontario

- Cheese, Apples, Tomatoes, Peaches, Corn, Maple syrup, Pork, Grapes, Beer, Yellow perch, Soya beans, Fiddleheads

Quebec

- Maple syrup, Red streaked beans, Lamb, Blueberries, Sturgeon, Eel, Smelt, Cheese, Cider vinegar, Duck, Poutine

Newfoundland

- Salt cod, Shellfish, Wild partridge berries, Seal flippers, Cod tongues

Prince Edward Island

- Mussels, Potatoes, Lobster, Shellfish, Irish moss (seafood)

Nova Scotia

Blueberries, Apples, Maple Syrup, Cranberries, over 50 kinds of Vegetable crops, Lobster, Mussels, Oysters

New Brunswick

- Maple syrup, Beef, Fiddleheads, Potatoes, Eel

Yukon and Northwest Territories

- Salmon, Moose, Caribou, Dollsheep, Bison, Blueberries, Cranberries, Cloudberries, Huckleberries, Lake trout, Whitefish, Lingcod

What are the benefits of buying local?

The food is fresh because:

- Buying local means your food is harvested and then gets to the table quickly.

It's better for the environment

- Local foods require less packaging and travel smaller distances, saving on waste and energy.

It supports local economy

Buying from local farmers supports businesses in your community .

It creates access to food experts

- Buying local food creates the opportunity for you to build a relationship with your food supplier.

Local food is about the future

- By supporting local farmers today, you can help ensure that there will be farms in your community tomorrow.

Exploration

- It is a great way to be a tourist in your own home, discover new .avours and try new foods that you didn't know were local to your community.

Facts and Figures about Agriculture in Nova Scotia:

- In Nova Scotia, agriculture creates 16,000 jobs and contributes over $1 billion annually to the provincial economy.
- In 2007, agriculture generated farm cash receipts of almost $450 million in Nova Scotia.
- Nova Scotia exports more than 30 agricultural products to over 60 countries around the world.
- Nova Scotia produces enough blueberries to make 26 million pies each year.
- Nova Scotia's wine making history can be traced back to the 1600's. Currently valued at approximately $12 million, the wine industry has tripled commercial grape production since 2000 and continues to grow.
- Canada makes more than 80 per cent of the world's maple syrup. Farm cash receipts for Nova Scotia's industry in 2007 were over $11 million.
- Nova Scotians grow over 3 million bushels of apples every year.
- More than 50 different kinds of vegetable crops are grown in Nova Scotia.
- Nova Scotians enjoy one of the safest food supplies in the world.

□

is almost 100 hectares; 98 per cent of Canadian farms are still family owned and operated.

- Almost 50 per cent of Nova Scotian agri-food exports go to the United States.

Key Messages:

Canadian cuisine is a multicultural salad.

Buying your food locally has many advantages.

Explore your provinces native foods.

Fortified with Fun:

Buy local challenge

Farming for Your Favourite Foods

The Supermarket Flyer

A Piece of Agriculture

Now You're Cookin!:

Cape Breton Scones

Nanaimo Bars

Resources:

Nova Scotia Department of Agriculture: www.gov.ns.ca/agri

Nova Scotia Agricultural Awareness: www.gov.ns.ca/agri/agaware

Agriculture in the Classroom: www.aitc.ca

Worldly Foods

Objective:

To expose members to Asian, Mediterranean, Mexican and Indian food cultures.

Processing Prompts:

What are some common ingredients in Asian cuisine?

Where does tzatiki sauce originate?

What is Indian cuisine known for?

Background Information:

What does cuisine mean?

Cuisine is a style or method of cooking of a particular country, region or establishment. It is often based on the foods available in the region or country

Why are cuisines from around the world so interesting?

What society deems as acceptable in terms of diet highly affects what we will choose to eat. When our grandparents were growing up, they were exposed to very little variety in terms of food choices. The only foods that were available were the basic meat and potatoes and a few traditional dishes brought from the old country. The only exception was the local Chinese restaurant. To this day, many seniors will enjoy an ethnic Chinese meal but will hesitate to try foods from cuisines they weren't exposed to.

Our parents and us are much more accepting of foods from other cultures. We often seek out ethnic restaurants for the pleasure of trying something new and different. Indian, Thai, Cajun and Greek are all popular foods. Italian pasta and pizza are here to stay. Mexican foods are so popular that they are competing with the North American hamburger for popularity. The world is becoming smaller and smaller as we venture into more and more cultural cuisines.

Through increasing communication, travel and trade throughout the world, we are being exposed to the cuisine of different cultures.

It seems as though everyone is interested in foods from different cultures today. Some people enjoy the adventure of trying something new and being immersed into another culture.

What are characteristics of Asian cuisine?

Asian culture encompasses a huge chunk of the globe: Chinese, Japanese, Korean, Taiwanese, Vietnamese, Thai, Mongolian and Laotian. Each culture does have different variations of food, tools and ingredients but this list will cover the basics.

Cooking techniques

- The basic cooking techniques in Asian cooking are: Stir-frying, deep frying and steaming, which are practiced in nearly the same way as they were centuries ago

Common cooking tools

- Steamers, Knife cleaver, Wok, Spatula, Bamboo brush, Ladle, Tongs, Chopsticks

Common cooking ingredients

- Rice
- Meat: pork, seafood, fish, tofu
- Noodles
- Sauces: bean, garlic, oyster, peanut, ginger, sweet and sour and teriyaki
- Dim sum
- Tea

What are characteristics of Mediterranean cuisine?

The styles of cooking in Mediterranean vary greatly between three culinary regions: North African (Morocco), Eastern Mediterranean (Greece, Egypt, Israel, Lebanon, Syria, Turkey) and Southern Mediterranean (Italy, France, Spain).

Greek cuisine

- Common cooking ingredients
  - Pita bread
  - Olives
  - Meat: lamb, chicken, pork, beef and fish
  - Tzatziki sauce – yoghurt and cucumber
  - Feta cheese
  - Wine
- Common cooking tools
  - Rolling pin, Pie pan, Salad bowl, Chopping and paring knife, Chopping board, Cheese grater

Moroccan cuisine

- Common cooking ingredients
  - Seasonings: cinnamon, ginger, cayenne, paprika, coriander, turmeric
  - Harissa – paste made of chilis, garlic, salt and olive oil
  - Couscous – granulated pasta made from semolina grain that is steamed or boiled
- Common cooking tools
  - Mortar and pestle, Food mills, Tongs, Baking stones, Cutlet bat, Tagine – clay conical oven, Tea cups

Italian cuisine

- Common cooking ingredients
  - Pizza
  - Pasta
  - Sauces: Tomatoes, garlic and olive oil – simplicity is the key
  - Olive oil
  - Wine
  - Deli meats: pepperoni and salami
  - Mozzarella and parmesan cheese
  - Herbs: oregano, rosemary, sage, thyme, basil, pine nuts and garlic
- Common cooking tools
  - Skillet, Pan, Pasta pot, Colander, Cheese grater, Salad bowl

What are common characteristics of Mexican cuisine?

- Common cooking ingredients
  - Corn tortillas
  - Cheese: Queso, Fresco
  - Fruits and vegetables: jicamas, papayas, avocados, squash
  - Meat: poultry, seafood, beef
  - Rice
  - Spices: garlic, chilies and peppers

- Common cookware
  - Flavours come from cookware made from natural resources such as clay pots or utensils
  - Cazuelas – casserole dishes
  - Ollas – pots
  - Jarros – pitcher
  - Metate – grinder
  - Metlapil – stone tool
  - Mortar and pestle
  - Soplador – fan
  - Motinello – beater
  - Sauce pan
  - Cheese grater

What are common characteristics of Indian cuisine?

Indian cuisine is distinguished by its sophisticated use of spices and herbs. Another strong influence in Indian foods is based on the large amount of vegetarians within the regions

- Common cooking ingredients
  - Spices: cardamom, chilis, cinnamon, cloves, coriander, cumin, curry powder, saffron, paprika, ginger, mint, mustard seeds, turmeric
  - Breads: roti and chapatti
  - Peppers
  - Poultry, meat
  - Vegetables
  - Rice
  - Chutneys, curries and relish
  - Pulses/beans
  - Tea

Key Messages:

Each country and region has its own special cuisine.

Each cuisine has its own unique cooking tools and ingredients.

Don’t be afraid to try a new recipe or dish from a different culture.

Fortified with Fun:

The Supermarket Flyer

Now You're Cookin!:

Tzatziki sauce

Greek Lentil Salad

Chicken Enchiladas

Food for Thought

Vegetarianism

Objective:

To expose members to the advantages and disadvantages of eating a vegetarian diet.

Processing Prompts:

What are some reasons people choose to be vegetarians?

Can a vegetarian diet be a healthy diet?

If you ate only vegetables and grain products, are you able to meet all of your nutrient needs?

Background Information:

Why do people choose vegetarian diets?

There are many reasons people choose to avoid animal products.

These include health, environmental, ethical/moral, religious or economic concerns.

What are some common vegetarian diets?

Lacto-ovo

- Grains, legumes, nuts, seeds, vegetables, fruit, milk products and eggs
- Do not consume meat, poultry, fish, seafood

Lacto

- Grains, legumes, nuts, seeds, vegetables, fruit, milk products
- Do not consume meat, poultry, fish, seafood and eggs

Vegan

- Grains, legumes, nuts, seeds, vegetables, fruit
- Do not consume meat, poultry, fish, seafood, eggs, milk products, honey, animal by-products (gelatin, bouillon cubes)

Do vegetarians follow "Eating Well with Canada's Food Guide"?

To achieve a healthy diet, there is a specific vegetarian food rainbow adapted for those who do not eat milk products or eggs.

What are some benefits of vegetarian diets?

Low in saturated fats and cholesterol

High in fibre

High in folic acid

High in vitamins and minerals

Can a vegetarian still achieve a healthy way of eating?

YES!

Vegetarian diets can be healthy at any age; however, as with any dietary choice, some planning is necessary in order to meet nutrient needs.

When meat and other animal products are limited or avoided there is a risk of missing certain nutrients such as:

- Protein
- Calcium
- Vitamin D
- Vitamin B12
- Omega 3 fatty acids
- Zinc
- Iron

What can vegetarians eat to make sure they are getting these nutrients?

Protein

- Soy foods, legumes, nuts/seeds, milk and eggs

Iron

- Soy foods, legumes, nuts/seeds, fortified grain products, raisins, prunes, spinach

Calcium

- Calcium fortified orange juice, soy beverage, calcium set tofu, almonds, dark green leafy vegetables, vegetarian patties

Vitamin B12

- eggs, milk products, tempeh and miso, nutritional yeast

Vitamin D

Fortified milk, soy beverage, margarine and breakfast cereals, egg yolks, mushrooms and dark leafy greens

Omega 3 fatty acids

- Flaxseed, hempseed, soy beans, walnuts, enriched eggs

Zinc

- Legumes, nuts/seeds, breads, milk products, eggs

Are you considering a vegetarian diet?

Eating a vegetarian diet requires planning and discussion with a community dietitian to make sure you are following it correctly as well as meeting the nutritional requirement for growth and overall health.

Vegetarianism is a personal choice and something that needs to be carefully considered.

Key Messages:

Vegetarians can eat a healthy diet and meet all of their recommended nutrients.

Vegetarianism is a lifestyle that requires planning and discussion with a health professional.

Fortified with Fun:

The Great Food Debate

Now You're Cookin!:

Tofu Stir-fry

Vegetarian Lasagne

Resources:

Dietitians of Canada: www.dietitians.ca

Organic Food

Objective:

To inform members about certified organic food products.

Processing Prompts:

Do you know what “organic” means?

How do you recognize an “organic” product?

What are some factors that would influence you to buy an organic food product?

Background Information:

What is the definition of an organic product?

An organic product is that which is raised, grown, or processed without the use of synthetically produced fertilizers, herbicides or pesticides, growth hormones, growth regulators or genetically-modified seeds.

What does certified organic mean?

A product with this label will have an audit trail showing that it has complied with the strict processing and production requirements as determined by the Canadian Food Inspection Agency.



Source: Canadian Food Inspection Agency, www.inspection.gc.ca/english/fssa/orgbio/otfgtspbe.shtml

The label says “organic”, but how do you know for sure?

Once food has been harvested there is no accepted way to analyze and prove it was produced organically.

One way to ensure a food has been produced organically is to buy it from a farm that is “certified” organic.

Make sure to look for the label.

Why do some farmers choose to grow organically produced food over conventionally produced?

Organic farmers are self reliant rather than dependent synthetic pesticide and fertilizer industries..

Organic production occurs in an environmentally-friendly way.

Organic farmers meet the demand of consumers choosing to purchase products produced this way.

Does natural mean organic?
No. Natural and organic are not interchangeable.Other truthful claims, such as free-range, hormone-free and natural can still appear on food labels. However do not confuse these terms with organic. Only food labelled organic and has been certi.ed by a recognized organic certi.cation body can be termed “organic”.

What techniques do organic farmers follow? Farm practices include:

Crop rotation to control weeds instead of using herbicides.

Livestock manure to fertilize crops rather than chemicals.

Grow legumes to increase nitrogen levels in the soil.

Intercropping, which is growing more than one species of crops in the same field.

Composting, which is using decomposed organic matter to fertilize the land.

Do processing facilities such as seed plants and flourmills have to be certified?

Any facility that handles organic food products must also be inspected and certified by an independent third party acting on behalf of a certifying agency.

Key Messages:

If purchasing organic products, make sure to look for the certified “organic” label.

Farmers and producers choose to produce organic food for many different reasons.

Fortified with Fun:

The Great Food Debate

Now You’re Cookin!:

Roasted Garden Vegetable and Hummus Sandwich

Resources:

Canadian Food Inspection Agency: www.inspection.gc.ca

Atlantic Canadian Organic Regional Network: www.acornorganic.org

Canadian Organic Growers - http://www.cog.ca

Organic Agriculture Centre of Canada: www.organicagcentre.ca

Food Service

Objective:

To discuss the advantages and disadvantages of four typical food service operations.

Processing Prompts:

What does food service mean?

Where are food service operations found?

What are the different types of food service operations?

Background Information:

What is food service?

Food service is a business term, which is most synonymous with "catering". The food service industry generally supplies meals to institutions and companies that are responsible for any meal eaten away from home.

Food service operations are found in restaurants, hospitals, schools, cafeterias and many other food venues.

What are characteristics of food service operations?

Demand for food occurs at peak times around breakfast, lunch and dinner.

Demand for food may vary depending on time of year and special holidays.

Food production and service are labour intensive.

Food is perishable, requiring it to be handled properly during and after preparation.

Menus change on a daily basis thus, production changes daily.

What is the flow of food in food service operations?

All food service operations will adapt their own flow of food depending on their operation.

However, this is a basic flow of food:

Menu Planning, Purchasing, Receiving, Storing, Preparing, Cooking, Holding, Serving, Cooling, Reheating

What are the types of food service systems?

There are four types of food service systems that can be adapted.

What is a Conventional Food Service system?

Is the most common

Ingredients are assembled and food is produced onsite, held either heated or chilled and served to customers.

Food is purchased in all stages: fresh, semi-prepared and fully prepared.

Used in schools, restaurants, colleges and universities and cafeterias.

Advantages

- Food will seem fresher and more "homemade" as it is prepared onsite.
- If there is a change in the menu it is easier to fix as the food is prepared onsite.
- Food is served shortly after preparation.
- Traditional standardized recipes can be used.

Disadvantages

- Labour intensive
- Higher food costs

What is a Centralized Food Service system?

Food is prepared in a central kitchen operation and then transported to where it is being served to customers.

Foods can be transported either hot or cold, which affects the delivery and equipment needs in the receiving kitchen as well as in transportation.

Foods can be sent to the receiving kitchens bulk or pre-plated, which affects the equipment and labour needed in the receiving kitchen.

Used in airports, urban schools and some hospitals/care homes.

Advantages

- Lower food and supply costs
- Purchasing power
- Ingredient control
- Inventory control
- Lower labour costs
- Flexibility in scheduling
- Quality control
- Consistency
- Better utilization of production facilities

Disadvantages

- Equipment malfunctions can be significant
- Transportation costs
- Costs for buildings and equipment
- Because the food is being assembled offsite and transported, customers may feel the quality is not as good as being prepared onsite
- There are food safety concerns due to the transporting of food to different locations if not done properly

What is the "Ready Prepared" Food Service system?

Food is produced onsite, held chilled or frozen, reheated and served to customers on site.

Food can be scheduled at any time since food is prepared and stored frozen.

Allows for multiple day food productions.

Used in hospitals and prisons.

Advantages

- Flexibility in scheduling of food preparation
- Lower labour costs

Disadvantages

- Menu variety may be limited
- High costs of ready-prepared equipment

What is an Assembly Serve Food Service System?

Food is purchased, prepared and stored either frozen or chilled. It is then portioned, reheated and served to customers.

Advantages

- Lower labour costs
- Limited equipment needs

Disadvantages

- High food cost
- Menu variety may be limited
- Availability of menu items
- Perceived loss of quality

Key Messages:

There are four types of food service systems.

The food service industry includes restaurants, hospitals, schools, cafeterias and food vendors.

Every establishment will adapt its own food flow and food service system, depending on what best suits their operation.

Where Does Our Food Come From?

Objective:

To explore where our food comes and how agriculture is found in more than just food products.

Processing Prompts:

What is farming?

Do you have to be a farmer to be in agriculture?

Where else do we find agriculture?

Background Information:

Where does food come from?

In our society, we often don't consider our food at any stage before the supermarket. Yet, the foods we eat were once alive and growing from either plants or animals. It is important to take some time and explore where your food comes from and the people involved in getting the food from the field to fork.

What is farming/agriculture?

Farming is using land or water to grow crops and raise animals. e.g.: Birds or fish or food and other products.

What is a farm?

Farming takes place on large areas of land or water called farms. Farms on land will have fields for crops and large buildings called barns to house the animals or birds. Large bins are used to hold grains and large silos are used to hold bulk produce. Farms on water will have large pens to hold the fish.

What are crops?

When food plants are grown in large amounts they are called crops. Food plants can be raised to feed the animals on the farm or they can be raised for food for us to eat.

- Examples of food plants for animals are corn, grass and hay
- Examples of food crops for people are wheat, sunflowers, strawberries, canola and potatoes

What are the steps in the food system?

1. Getting ready to grow food
2. Growing the food
3. Moving food from the field
4. Processing, storing or selling the food
5. Preparing and eating the food
6. Each of these steps involve many processes and considerations. There are also many people involved in these processes including bankers, agriculture suppliers, truck drivers, food handlers and bakers.

Do you have to be a farmer to be involved in agriculture?

One in seven Canadians is directly or indirectly employed in the agriculture and agri-food industry.

A snippet of the occupations involved in the agriculture include: food researchers, breeding program technicians, processing and marketing analysts, chemical, electrical and computer engineers, agronomist, etc.

What is the first thing you think of when you think of agriculture?

Perhaps it is wheat fields and threshing machines. Maybe cows grazing in the field or a country kitchen filled with pies and jams.

When thinking of agriculture it is not likely you will think of shaving cream or kitty litter or a host of everyday items that are made from agricultural products.

Agriculture touches your life from the games you play, to the household items you use – agriculture is everywhere.

How is agriculture gone from just food to everyday products?

There is no doubt that the scope of agriculture is broadening. As technology continues to advance at rapid speeds, researchers across the globe are finding new and more elaborate uses for our agricultural products. And we are discovering just how important agriculture is to our lives.

From common household items to materials in our schools, to sports equipment used by professional athletes – agriculture is virtually everywhere you look.

Agricultural products are used extensively in manufacturing, pharmaceuticals, construction and countless other industries that power society's engines that drive us to new and interesting places.

Where is agriculture?

Canola

- Plane de-icer, suntan lotion, windshield wiper fluid, newspaper ink, makeup

Corn

- Cough syrup, toothpaste, ethanol fuel, wallpaper

Hogs

- Fabric dyes, footballs, makeup brushes

Cattle

- Chalk, wallets, fertilizer, film, crayons, sports equipment

Sheep

- Wool clothing, soap, baseballs, shaving cream, stitches

Wheat

- Kitty litter, ethanol, black boards

Soybeans

- Solvent, paints and painters ink

Agriculture is a vital part of our lives. Most people think of agriculture as animals and grain, but it is much more than that.

Key Messages:

It is important to recognize where our food comes.

Agriculture is found everywhere!

There are many people involved in the agriculture/agri-food industry.

Fortified with Fun:

The Apple Test

Farming for Favourite Foods

Agriculture in your Life

A Piece of Agriculture

Now You're Cookin!:

A Grain of Truth – Sunflower Cookies

Hearty Fall Pot Roast Dinner

Resources:

Canadian Agriculture in the Classroom National Directory: www.aitc.ca

Agriculture Canada - Agriculture, Food and Beverage Fact Sheets http://www.atn-riae.agr.ca/supply/factsheet-e.htm

Field to Fork

The Goods on Grains

Objective:

To determine the importance of grains.

Processing Prompts:

What is the different between a whole grain and a refined grain?

Why are whole grains good for you?

How many servings of grains do we need to eat every day?

Background Information:

What are grains?

Grains come in many shapes and sizes.

Also called cereals, grains are the widely varied seeds of grasses that are cultivated for foods.

Grains are a good source of complex carbohydrates, various vitamins and minerals and are naturally low in fat.

Grains that haven't been refined, called whole grains are better for you and are encouraged according to "Eating Well with Canada's Food Guide."

What makes up a whole grain?

Grains are the seeds of plants. When whole, they include the bran, germ, and endosperm – all of which contain valuable nutrients.

Bran

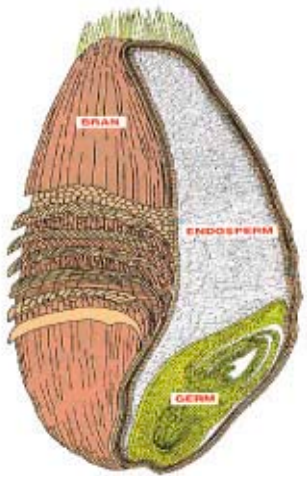
- Forms the outer layer of the seed.
- Is a rich source of niacin, thiamine, riboflavin, magnesium, phosphorus, iron and zinc.
- Contains most of the seed's fibre.

Germ

- Is the area from which a new plant sprouts.
- A concentrated source of niacin, thiamine, riboflavin, vitamin E, magnesium, phosphorus, iron and zinc.
- Contains protein and some fat.

Endosperm

- Is also called the kernel, which makes up the bulk of the seed.
- Contains most of the grain's protein and carbohydrates and has a small amount of vitamins and minerals.



Source: Great Harvest Bread Co.: www.darngoodbread.com

What is the difference between white bread and brown bread?

Refined grains

- Such as white bread, white flour and white rice have both the bran and germ removed from the grain.
- Although vitamins and minerals are added back into refined grains after the milling process, they still don't have as many nutrients as whole grains.
- Examples: cornflakes, couscous, white bread, white rice, grits, pretzels.

Whole grains

- Such a brown bread, whole wheat flour and brown rice have not had their bran and germ removed by milling, making it a good source of fibre.
- Examples: barley, brown rice, buckwheat, bulgur, millet, oatmeal, popcorn, wild rice.

How do you know if a food contains whole grains?

To identify products that contain all three parts of the kernel (bran, endosperm and germ) check the ingredient list for the word "whole" or "whole grain."

You can't tell the amount of whole grain present in food, but the best sources will list a whole grain as the first ingredient.

Whole grain ingredients include:

- Whole wheat
- Whole oats
- Whole rye
- Whole grain barley
- Whole grain corn
- Wild rice
- Popcorn

What is fibre?

Fibre is a nutrient found in plants. Our bodies don't digest fibre the same way other nutrients are digested, and oddly enough this is the reason why it's good for us.

Why is fibre good for you?

Fibre has many health benefits.

Fibre keeps your bowels healthy and prevents constipation.

A high fibre diet can help to prevent diabetes, heart disease, maintain a healthy weight as well as keeping you feeling full longer.

Where do I get fibre?

Most of the fibre we get in our diets comes from grain products like whole wheat breads, oats or bran cereals, brown rice and pasta. Fruits, vegetables, beans, legumes, lentils and chickpeas are also great sources of fibre.

Are there different kinds of fibre?

There are two different kinds of fibre

- Insoluble
  - Is bowel friendly because it maintains regularity
  - Found in whole wheat products like wheat bran and whole wheat bread, corn bran, flax seeds and some vegetables and fruits (especially the skins).
- Soluble
  - Is heart friendly
  - Found in fruits and vegetables, oat bran, oatmeal, barley, psyllium and legumes.

How much fibre should I eat a day?

25 grams of fibre per day.

An increase in fibre should be done gradually as increasing the amount of fibre too quickly may cause abdominal discomfort.

Remember to drink a lot of water.

What does “Eating Well with Canada’s Food Guide” recommend?

The grain products food group is represented with a prominent arc in the rainbow of Canada’s Food Guide. This means that relative to some of the other food groups, a large number of servings is recommended.

Recommended foods include all grains, cereals, pasta, rice and products made with grain flour (including corn flour).

Try to make at least half of your grain products whole grain each day

Choose grain products that are lower in fat, sugar or salt.

How do you make half of your grain products whole grain each day?

Start your day with a bowl of oatmeal, whole grain cereal or whole-wheat toast.

Try whole grains used in different cultures, such as bulgur, pot barley, quinoa and wild rice.

Substitute brown rice in recipes that call for white rice; use whole-wheat pasta instead of regular pasta.

Bake with whole-wheat flour. In most recipes you can substitute half of the white flour for whole-wheat flour.

Pick a cereal that is made with whole grains or bran, or one that is at least a “high source” of fibre.

Order pizza made with whole-wheat crust.

Key Messages:

Make at least half of your grain products whole grain each day.

Whole grain products are an excellent source of fibre.

Fibre is your friend.

Fortified with Fun:

Starchy or Not?

Incredible Food Processor Experiment

Now You're Cookin!:

A Grain of Truth – Sunflower Cookies

Baked Mushroom Rice

Resources:

Dietitians of Canada: www.dietitans.ca

Health Canada: www.healthcanada.gc.ca/foodguide

Check for Pulses

Objective:

To introduce members to the benefits of pulses, how to cook them and how to add them into their favourite dishes.

Processing Prompts:

What are pulses?

What are some examples of pulses?

How could we add pulses to our diet?

Background Information:

What is a pulse?

A family of plants producing seeds in pods that are of high nutritional value and includes peas, beans or lentils.

Why have we never heard of "pulse" before?

For many families, the word "pulse" is just beginning to become a household word.

The history of pulses date back more than 10,000 years and spans the whole world.

For example, in North America, hearty pea soup was introduced to Canadians by French settlers and baked beans were considered a staple for western ranchers.

How did the word "pulse" get its name?

One theory suggests that pulse was derived from the word "puls" meaning "lens shaped."

What are some types of pulses?

Peas

- Yellow, Green

Lentils

- Large green, Small green, Split red

Beans

- White pea, Kidney beans, Red beans, Pink beans, Yellow eye beans, Northern beans, Romano beans, Black beans, Dutch brown beans

Chickpeas

- Garbanzo beans, Desi chickpea

Why are pulses good for you?

Low in fat

Low in sodium

High in fibre

Cholesterol free

Good source of protein and minerals

What is fibre?

Please refer to the Grains section for more information on fibre.

Do you have to soak pulses?

Beans and whole peas must be soaked before cooking because their skins are impermeable and water can only enter through the small end of the bean.

Split peas and lentils do not require soaking.

How do you soak pulses?

Quick soak

- Combine 3 cups (750 mL) of water for each cup of peas or beans
- Bring to a boil for 2 minutes
- Remove from heat, cover and let stand for 1 hour
- Rinse and discard water

Overnight soak

- Combine 3 cups (750 mL) of water for each cup of peas or beans
- Let stand overnight
- Rinse and discard water

Microwave soak

- Combine 3 cups (750 mL) of hot water for each cup of peas or beans in a microwave-safe casserole dish
- Cook on high for 10-15 minutes
- Let stand for 1 hour, rinse and discard water

Add a pinch of ginger during soaking to help reduce gas problems.

How do you cook pulses?

Although much care is taken to clean pulses to Canadian standards, be sure to rinse and remove any withered or broken peas, beans, or lentils.

If using canned pulses, make sure to rinse with water to remove any excess salt.

Replace 1 lb (450 g) of hamburger with 1 cup (250mL) of lentils for spaghetti sauce, chili or hamburger soup.

Add soaked beans to a rice dish to add extra protein.

Add mashed beans and tomato sauce for a fun filling for tortillas, baked potato or a tasty baked tortilla chip dip.

Cooked pulses can be easily stored in freezer bags and frozen for six months.

Make sure to add extra fluid to your dishes when adding pulses as they tend to soak up the juices.

What are some other points about pulses?

1 cup (250 mL) of baked beans contains more fibre than 1 cup (250 mL) of all bran cereal.

1 cup (250 mL) of cooked peas, beans or lentils provides more potassium than 1 banana.

If pulses are eaten with Vitamin C rich foods such as cabbage, tomatoes or oranges, the body has the ability to absorb more iron.

Pulses are an excellent choice for gluten-free and diabetic diets.

Pulses, combined with grain products, provide a source of complete protein in a vegetarian diet.

Key Messages:

Pulses have many health benefits when added to your diet.

Try pulses in your favourite dishes.

Fibre is your friend.

Fortified with Fun:

The Stringy Soup Experiment

Now You're Cookin!:

Chickpea Burgers

Bean Salad

Resources:

Pulse Canada: www.pulsecanada.com

Eggcellent Eggs

Objective:

To understand the positive health benefits of including eggs in your cooking.

Processing Prompts:

Are eggs good for you?

Why are eggs good for us?

Why do we us eggs in cooking?

Background Information:

Why are eggs so eggcellent?

Eggs are one of the most affordable sources of high quality protein. They contain all nine essential amino acids that your body cannot produce naturally.

- Amino acids are regarded as the building blocks of the body and are vital to your overall health.

Eggs are packed with 14 essential nutrients that help keep your body healthy and active.

- protein, vitamin A, vitamin B12, vitamin D, vitamin E, choline, omega 3 fatty acids, riboflavin, niacin, folate, iron, zinc, lutein, zeaxanthin.

They are good for your eyes because of the vitamins and minerals.

Easy to chew and digest.

Good for your heart because eggs contain healthy fats.

And are a nutrition powerhouse because all of the essential nutrients are present in an egg.

Why is protein good for you?

Keeps you feeling fuller longer.

Helps build endurance and stamina to complete the day's activities.

Provides building blocks for tissue growth and repair.

Provide enzymes and hormones.

Helps fight infection.

Keeps body fluids in balance.

Are eggs safe?

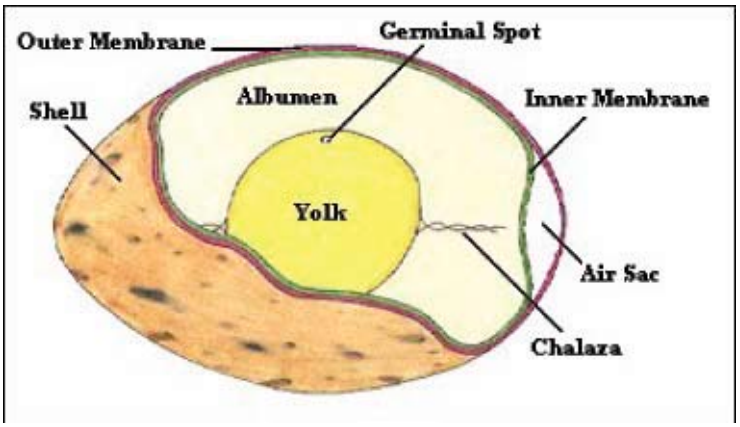
An egg is naturally one of the safest foods.

Nature's design offers three lines of defence to protect the egg from foodborne infection.

- The hard calcium shell
- Two membrane layers
- A natural antimicrobial in the egg white (albumen)

All Canadian egg grading stations are federally registered and subject to federal regulations and regular inspections.

Cooling is stressed at the farm, the grading station and the retail level to keep eggs fresh.



Source: KidWings: http://www.kidwings.com/eggs/

How do we keep eggs safe from the gate to our plate?

While producers, distributors and retailers work to implement safety standards at all levels, it must not be forgotten that consumers have an important role.

- Store eggs in their original container in the body of the fridge, not in the door.
- If eggs are stored in the door of the fridge they are constantly being exposed to different temperatures every time you open the door, which could cause foodborne illnesses.
- Serve eggs and egg rich foods immediately after cooking or refrigerate and serve within three to four days.
- Wash hands with hot, soapy water before and after food preparation.
- Keep hot foods hot and cold foods cold.

How are eggs sized?

Eggs are sized by weight. They may appear to be the same size but their weight is different.

- Pee wee – less than 42 g
- Jumbo – 70 g or greater

Which type of egg should you buy?

There are plenty of egg varieties. You will need to consider which is best for you. Considerations include the following: white or brown, omega-3, organic, free range, etc.

Why do some eggs have light yellow yolks and some dark yellow?

Hen feed determines the colour of the egg. A hen that eats wheat-based diet produces a light yellow yolk. A hen that consumes a corn or alfalfa diet produces dark yellow yolks.

How can you tell if an egg is fresh?

As long as the eggs have been handled properly, the best before date on the carton is an indication of freshness. A fresh egg, in its shell, will sink in water while an old egg will float.

Are brown eggs more nutritious than white eggs?

Brown and white eggs have the same nutritional value. Shell colour depends on the breed of hen.

What are eggs used for in cooking?

Binding properties

- Help ingredients in a mixture stick together

Leavening agent

- Increase the volume of a food product and lightens its texture

Thickening agent

- Increases the thickness and viscosity of a food product

Emulsifying agent

- Combines two liquids together such as oil and water

Coating agent

- Beaten eggs are used to apply on the surface of foods

How do you beat eggs?

Beating eggs should occur at room temperature, so take them from the refrigerator half an hour ahead of time. If you are beating the whites and the yolks separately, have two bowls ready and separate the whites in one bowl and the yolks in the other.

To separate the yolk and white of an egg, tap the egg lightly with a knife against the edge of a small custard cup, just enough to crack the shell. Hold the egg over the cup with both hands, with the crack facing up. Next, widen the crack until the shell splits into two halves. The yolk should be unbroken and resting in one of the halves. If there is any white left in either half of the shell, pour the yolk back and forth from one half of the shell to the other, letting the white drip between them into the cup. It's important to keep the white clear of any bits of yolk. Drop the yolk from the shell into one bowl and pour the white from the cup into the other before you separate another egg.

Beat whole eggs or egg yolks with a hand beater or an electric mixer. To beat egg whites, use a clean, dry glass bowl and beaters. With an electric mixer, start out on slow speed and beat until the whites are foamy. Increase the speed to medium and beat the white according to recipe directions. Egg whites lose their volume quickly so beat them just before you need them. If the recipe calls for egg whites to be "stiff but not dry", beat the egg whites until glossy firm peaks are formed.

Key Messages:

Eggs are a nutrition powerhouse.

Eggs play an important role in cooking and baking.

Eggs are an excellent source of protein.

Fortified with Fun:

The Stringy Soup Experiment

Now You're Cookin!:

Egg and Salsa Burritos

Fruit Saucers

Resources:

Get Cracking: www.eggs.ca

Fruits and Vegetables

Objective:

To encourage members to include fruits and vegetables in all meals.

Processing Prompts:

How many servings of fruits and vegetables should we be eating?

What is a serving of fruits and vegetables?

How can you reach 5 servings of fruit a day?

Background Information:

What are the health benefits of fruits and vegetables?

Supply important vitamins and minerals

Supply fibre, vitamin A, C and folate

Reduce the risk of Type 2 diabetes and cancer

Supply antioxidants

What are antioxidants?

Antioxidants are chemicals found in food products that protect the body from harmful cancer causing agents.

Vitamin C and E are antioxidants.

What does "Eating Well with Canada's Food Guide" recommend?

"Eating Well with Canada's Food Guide" recommends eating dark green and orange vegetables and orange fruit more often.

- Green and orange foods are higher than other fruits and vegetables in certain key nutrients like vitamin A and folate.
- Examples: broccoli, spinach, squash, sweet potatoes, carrots, cantaloupes, oranges and orange juice.

What are examples of one serving of fruits and vegetables?

1 medium fresh fruit or vegetable, roughly the size of a baseball

1/2 cup (125 mL) of raw or cooked vegetables

1 cup (250 mL) of mixed fruit or vegetables

1/4 cup (60 mL) dried fruit

1/2 cup (125 mL) of 100% fruit juice

How to shop for fruits and vegetables?

Pick fruits and vegetables of different colours to get all of the vitamins and minerals you need.

Choose 100% fruit juice. Eat whole fruit to help increase the fibre as well.

Choose 100% unsweetened fruit juice. Fruit naturally has sugar, so you don't need to add more.

Choose low sodium vegetable juice as some vegetables juices contain high amounts of sodium – much more than you need.

Choose calcium enriched orange juice as it has both Vitamin C and calcium to help meet your nutrient needs.

Choose fresh produce that is in season. At other times of the year, use canned or frozen fruits and vegetables.

Canned and frozen produce is just as nutritious as fresh produce. Keep in mind that canned vegetables are higher in salt, so rinse before eating.

How can you reach at least 5-10 servings of fruits and vegetables a day?

When you get home from the store, wash, cut and prepare fruits and vegetables so they are easy to eat.

Brighten up your salads with fruit.

When you order a sandwich, sub or wrap make sure to add lots of vegetables.

Add sliced fruit to your cereal and yoghurt.

Add extra vegetables – fresh, frozen or canned – to soups, stews, chilis, spaghetti sauce and casseroles.

Keep dried fruit on hand or in your backpack – also add dried fruit to your baking.

Eat a lot of stir-frys.

Make your own fruit and vegetable juices by putting your fruits and vegetables in a blender.

Remember: try to not overcook the vegetables. Overcooking can destroy the vitamins in the vegetables. Vegetables taste best when they are steamed, lightly cooked or eaten raw.

Key Messages:

Eat a variety of colourful fruits and vegetables every day.

Aim for at least 5 servings of fruits and vegetables each day.

Canned, fresh and frozen fruits and vegetables are all good choices.

Fortified with Fun:

Taste Tests

Psychic Powers

Now You're Cookin!:

Spinach and Orange Salad

Roasted Vegetables

Resources:

Health Canada: www.healthcanada.gc.ca/foodguide

Horticulture Nova Scotia: www.hortns.com

Nova Scotia Fruit Growers Association: www.nsapples.com

WIld Blueberry Association of Nova Scotia: www.nswildblueberries.com

Canadian Produce Marketing Association: http://www.cpma.ca/en_hea.asp

- Fruits and vegetables availability guide
- Freezing and storage guide
- Nutrition, preparation, selection and storage information of a variety of fruit

Oilseeds

Objective:

To learn about the health benefits and cooking tips of common oilseeds.

Processing Prompts:

Are oils good for you?

What do our bodies need oils for?

What are some common oilseeds used in cooking?

Background Information:

What is the role of oils?

The role of dietary fats and oils in human nutrition has created widespread interest among consumers, researchers, food producers and educators.

They play an important role in growth, reproduction, vision, skin health and can prevent some diseases.

What are some types of oilseeds?

Soybeans, Rapeseed (canola), Sunflower, Corn, Peanut, Cotton, Palm, Coconut, Flaxseed (solin)

What are edible oil products?

Oils from Canadian oilseeds, especially canola, soybean, solin and sunflower seeds are major sources of edible oils used in Canada.

The oils include the liquid oil products used in salad dressings and mayonnaise products; partially hydrogenated oils are used for frying oils.

Hydrogenated oils are also used to manufacture both soft and hard margarines and vegetable shortening used in baking.

Flax, mustard and soybeans may be used directly in foods.

Soybeans are used as meat replacers, substitutes for dairy products and protein. They have been shown to have a beneficial effect on decreasing the risk of heart disease.

What else are oilseeds used for?

Oilseeds supply the components for both edible oils as well as many items we use every day.

- Cooking oil
- Spreads and shortening
- Prepared food
- Meal for dairy, poultry and other livestock
- Cosmetics
- Lubricants, fuels, and industrial applications
- Paints, stains and varnishes

Are oils good for you?

Small quantities of dietary fat are essential for good health.

Dietitians recommend we include unsaturated dietary fats and avoid foods with high levels of saturated and trans fats that are linked to harmful cholesterol levels leading to heart disease.

Polyunsaturated and monounsaturated fats contains omega-3 fatty acids, which are known to reduce cholesterol, decreasing the risk for heart disease.

Soft oils, such as canola, are healthy source of omega-3. These omega-3 fatty acids must be included in our diet as they cannot be made in the body.

How do you cook with oils?

Unrefined oils

- These oils are typically called salad oils and used for salad dressings, marinades and sauce, or light cooking oils (light sautés and low heat baking).
- As a general rule they should not be cooked at high temperatures.
- Examples: coconut oil, olive oil, nut oil, pumpkin seed oil

Refined oils

- These oils are used as medium cooking oils (225°F-350°F/107 °C -180 °C), high cooking oils (350°F/180 °C) and deep frying oils (greater than 450°F/230 °C).
- If the oil you buy is bland and pale, you can be certain that it has been fully refined, bleached and deodorized. In essence, refined oils have negligible flavour and aroma, which can be used in delicately flavoured dishes. They are used for baking, sautéing, stirfrying and oven cooking.

Examples: canola oil, vegetable oil, soybean oil, butter and lard

What is smoke point?

Smoke point is the temperature to which an oil can be heated before it smokes and discolours, which is an indication of decomposition.

At the smoke point the oil begins to release unpleasant odours and adds unsavoury flavours to your meal.

What is flash point?

Flash point is when oil reaches 600° F/320°C. Tiny wisps of fire begin to leap from the surface.

What is fire point?

When an oil is heated to its fire point, slightly under 700 ° F/ 400 ° C for most oils, its surface will become ablaze.

Are there any precautions I should take when cooking with oil?

Do not put out an oil fire with water- the water will splatter the burning oil and spread quickly.

- Smother with a tight lid or baking soda.

If cooking reaches a boiling point it is very dangerous.

- If oil starts to boil, remove it from the heat source immediately.

Key Messages:

Oils provide heart healthy benefits.

Moderation is key with fats and oil.

Make sure you are using the right oil in the right cooking situation.

Fortified with Fun:

Finding Fat

What's that Fat

Now You're Cookin!:

Flax Bannock biscuits

Dill Sauce

Resources:

Agriculture and Agri-Food Canada: www.atn-riae.agr.ca/supply/3305_e.htm

Milk Products

Objective:

To understand the importance of calcium found in milk products.

Processing Prompts:

Why is calcium important for our bodies?

What happens if you do not get enough calcium and vitamin D?

How can we increase the number of milk products in our diet?

Background Information:

Why are milk products important?

Necessary for healthy bones and teeth

Contains calcium

Important for heart function

Controls weight

Contains Vitamin A, D and protein

Why is calcium important?

Just about every cell in your body, including those in the heart, muscles, and nerves, rely on calcium to function properly.

Bones require calcium for strength.

Calcium is found in three places:

- In the skeleton and teeth
- In the cells
- In the blood

Because calcium is so important, the body has a carefully regulated system to ensure that a good supply is always available.

- The body absorbs calcium directly from the body
- It takes calcium from our bones if there is not enough calcium available
- It slows down the amount of calcium that leaves the body in your urine

In childhood, calcium is necessary to grow a healthy skeleton to support a growing body. By age 20 in men and 16 in women, bones typically stop growing in length and we reach our peak bone mass. This point depends a lot on our calcium intake as children and teenagers.

The greater the peak bone mass, the less likely our bones are to become porous and fragile later in life.

Adequate calcium intake can slow bone loss and lower the risk of fractures and the risk of osteoporosis.

How much calcium do we need?

Age	Calcium (mg) required per day
4-8	800 mg
9-18	1300 mg
19-50	1000 mg
50 plus	1500 mg

Reference: Osteoporosis Canada, www.osteoporosis.ca

What is so important about Vitamin D?

Vitamin D increases the absorption of calcium. Milk is an excellent source of Vitamin D and calcium.

There is another way to get Vitamin D. Vitamin D is also called the "sunshine vitamin."

Your body can make its own Vitamin D when your skin is exposed to sunlight.

Take a walk or sit in the sun for 10-15 minutes a day for optimal Vitamin D absorption.

What is Osteoporosis?

Osteoporosis is a disease characterized by low bone mass and deterioration of bone tissue. This leads to increased bone fragility and risk of fracture, particularly of the hip, spine and wrist.

How to increase the number of calcium and milk products in your diet:

Buy plain yoghurt and add your own fruit

Use grated cheese on soups, salads and casseroles

Add milk instead of water to soups

Melt cheese on toast

Have salmon with bones or sardines

Sprinkle almonds on salads

Add beans or lentils to soups

Add milk to your scrambled eggs

Add skim milk powder to sauces, puddings, baked goods or drink as a beverage

Use yoghurt for a fruit dip

What does 'Eating Well with Canada's Food Guide' recommend?

Drink skim, 1% or 2% milk each day

3-4 servings of milk products each day for ages 9-18

What is one serving size for the Milk Products group?

1 serving is equal to:

- 1 cup (250 mL) of skim, 1%, 2%, chocolate, whole or soy milk
- 1 cup (250 mL) of calcium fortified orange juice
- 3/4 cup (175 mL) of yoghurt
- 1 1/2 ounces (50 g) cheese

1/2 serving is equal to:

- 1 cup (250 mL) soup made with milk
- 1/2 cup (175 mL) pudding made with milk
- 1 cup (250 mL) cottage cheese

How much calcium is in some common foods?

50 mg

- 2 slices of bread
- 3/4 cup (175 mL) cooked broccoli
- 1 medium orange

75 mg

- 1/2 cup (125 mL) cottage cheese
- 1/4 cup (60 mL) almonds
- 1/2 cup (125 mL) ice cream
- 1 tbsp (15 mL) Parmesan cheese

150 mg

- 1/2 cup (125 mL) pudding made with milk
- 1 cup (250 mL) soup made with milk
- 3 oz tofu
- 1/2 cup (125 mL) frozen yoghurt

250 mg

- 2 slices of processed cheese slices
- 1/2 can of salmon with bones
- 3/4 cup (175 mL) fruit flavoured yoghurt
- 1 1/4” cube of firm cheese

300 mg

- 1 cup (250 mL) 1%, 2%, skim, whole, chocolate, or soy milk
- 3/4 cup (175 mL) plain yoghurt
- 1 cup (250 mL) calcium fortified beverages

Is the milk we drink safe?

Milk that is used for drinking or in the manufacturing of most dairy foods is pasteurized.

Pasteurization greatly improves milk's “keeping” quality by virtually destroying all disease-producing (and most other) bacteria through heat. It does not affect the quality or quantity of calcium, protein, riboflavin or vitamin D.

How much does a cow need to eat to make enough milk?

Looking at a dairy cow, you wouldn't guess that she eats tonnes of food every day. Most of this food energy is used by cows to make 24 L of nutritious milk every day.

Imagine eating the amount of food that an average dairy cow eats every day.

- 4 kg of hay (size of a small microwave oven)
- 16 kg of silage (half a swimming pool)
- 10 kg of mixed grains (2 1/2 ice cream pails)
- 60 L of water (2/3 of a bath tub full)
- = 75,000 calories a day. Consider that an adult eats 2,000 calories a day

Key Messages:

Calcium and vitamin D are important for strong bones and the prevention of osteoporosis.

Milk is not the only source of calcium.

Add calcium-rich products to your next meal.

Fortified with Fun:

Food Grab Bag

Psychic Powers

Internet Activities:

Calcium Calculator

Now You're Cookin!:

Yoghurt Smoothie

Poppy Seed Yoghurt Dressing

Resources:

Dairy Farmers of Nova Scotia: www.dfns.ca

Osteoporosis Society: www.osteoporosis.ca

Dairy Farmers of Canada: www.dairygoodness.ca

Pork - Not Just the Other White Meat

Objective:

To learn how to choose pork, the benefits of pork and the proper cooking methods for specific cuts and types of pork.

Processing Prompts:

Why should we choose pork?

Can you cook all cuts of pork the same way?

What is the difference between dry and moist heat?

Background Information:

Why choose pork?

Pork is the most popular meat in the world, making up over 43% of world meat consumption.

Its mild flavour is well suited to diverse flavour combinations – spicy, hot, tangy or sweet.

Pork is lean meat based on the Heart and Stroke Foundation and Canada's Health Check Program's criteria.

Why is pork good for you?

Pork is a very high source of protein. It contains each of the eight essential amino acids needed to build, repair and maintain body tissues.

Pork is the best source of thiamine and other important B vitamins.

Pork is a good source of minerals, particularly iron and zinc. Almost half the iron in pork is "heme iron," which is the type of iron most readily absorbed and digested by our body.

Please refer to the "What's you Beef?" section on non-heme and heme iron.

How do you read the label on pork products?

Reading the label on a cut of pork can be easy with the right information. There may be up to five words in the name but there are always in a specific order.

Pork	Loin	Centre	Chop	Fast	Fry
1	2	3	4	5	5

1. Species – indicates the type of meat
2. Primal – indicates what part of the animal the meat comes from, thus the degree of tenderness
3. Cut – indicates the retail cut
4. Description – provides additional information about the size of cut, thickness, bone, cooking option, etc.
5. Modifier – provide additional information about the size of cut, thickness, bone, cooking option, etc

How do you choose the right pork?

You can prepare perfect pork every time by choosing the cut that's right for you.

A side of pork is made up of four main wholesale areas called primals. They are the loin, leg, shoulder and belly.

Loin

- Is the most tender and lean
- The cuts from the loin are the roasts, chops, cutlets, tenderloin, back ribs, cubes and stripes
- Usually cooked by dry heat

Leg

- Is very lean and more economical
- Cuts from the leg are inside, outside, and leg tip
- Leg cuts can be cooked by dry heat but are most suited to moist heat

Shoulder

- Is the most economical retail cut
- Cuts from the shoulder are roasts, chops, steaks, cubes or ground pork
- Moist heat produces excellent results but dry can be used as well

Belly

- Provides side ribs, bacon and other processed pork products

What is cooking with "dry heat"?

Dry heat means cooking uncovered without the addition of liquid. This is most suitable for loin cuts, although some leg and shoulder cuts can be prepared using dry heat.

What are "dry heat" cooking methods?

Roasting

- To cook uncovered in a pan, usually in an oven surrounded by hot dry air
- Loin roasts, crown roasts, racks of pork, pork tenderloin, ribs

Broiling

- Means cooking directly under intense heat
- Cook using medium heat
- Chops, steaks, pork tenderloin, kabobs, ribs

Pan frying, sautéing

- To cook quickly in a small amount of oil over direct heat in an open pan
- Use medium high temp
- Chops, burgers, cutlets, cubes, tenderloin medallions

Stir-frying

- To cook smaller pieces of meat at a high temperature in a small amount of oil, stirring briskly during cooking
- Strips, cubes, ground pork

Barbequing

- Means to cook directly over intense heat
- Steaks, chops, roasts, ribs

What is cooking with "moist heat"?

Moist heat means cooking in a covered pan with added liquid or steam. This is an excellent method for leg and shoulder cuts.

What are some "moist heat" cooking methods?

Braising/ Pot Roasting

- Means to cook in a small amount of liquid
- Cubes, chops, leg and shoulder roasts

Stewing

- Means to cook in a moderate amount of liquid by simmering
- Cubes

Key Messages:

Pork is an excellent source of protein

There are many ways to cook pork using both dry and moist heat cooking methods.

Choose a cut of pork that suits your cooking methods.

Fortified with Fun:

Stringy Soup Experiment

Internet Activities:

Virtual Meat Counter: http://www.putporkonyourfork.com/put_pork_on_your_fork/virtual_meat_counter.html

Now You're Cookin!:

Pork Cordon Bleu

Resources:

Pork Nova Scotia: www. pork.ns.ca

Canadian Pork Council:www.cpc-ccp.com/

Put Pork on Your Fork: www.putporkonyourfork.com

Poultry

Objective:

To learn about poultry in respect to cooking and food safety.

Processing Prompts:

What is poultry?

What are some safe food safety practices when dealing with raw poultry products?

Why do we feel sleepy after eating turkey?

Background Information:

What is poultry?

Poultry is the class of domesticated fowl (birds) used for food or for their eggs.

The most common are chickens, turkeys, ducks and geese.

What are the health benefits of eating poultry?

Poultry is an excellent source of protein and energy.

Contains important nutrients such as iron, phosphorous, magnesium, zinc and B vitamins.

As a leaner meat, skinless poultry has less fat. It makes little difference in the fat content whether the skin is removed before or after cooking; however meat is more moist and tender if skin is left on.

What are common poultry cuts?

Chicken and turkey white meat comes primarily from the breast and wings. The dark meat comes from the thighs and drumsticks.

Breast

Tender – any strips of breast meat

Tenderloin – inner pectoral muscle

Wing

Leg – thigh and drumstick

Leg quarter – a thigh, drumstick and portion of the back

Breast quarter – half a breast, wing and portion of the back

Poultry half – full length split down breast and back

How do you select the class of poultry?

The class of poultry indicates the age of the bird. Examples: young chicken, young hen, duckling, young turkey, mature chicken, mature turkey, yearling turkey, mature or old duck, etc.

Age affects the tenderness of poultry meat and dictates the cooking method for use for maximum flavour and tenderness. Poultry meat from young birds is more tender than poultry made from older birds.

Young birds provide tender meat poultry that is suitable for all cooking methods, especially broiling, barbequing, roasting and frying.

Mature birds provide less tender meat poultry that is suitable for moist heat cooking such as stewing or baking and may be preferred for use in soups, stews, casseroles, salads or sandwiches.

What is the difference between a Cornish hen, a broiler and a roaster?

The difference is strictly a matter of size. Cornish hens are the smallest, broilers are the size most often seen in stores and roasters are the heaviest chickens and always sold as whole birds.

What is free run poultry?

Free run poultry means that the animals are raised in barns, which allows for free movement around the entire barn.

Where can I buy grain fed chicken?

All chickens in Canada are grain fed so be assured that every time you buy chicken you're getting a grain fed bird.

In western Canada farmers feed a blend of wheat and barley that gives the chicken skin and fat the white colour.

In other parts of Canada, chickens eat more corn giving the skin and fat a yellow colour.

Why do you feel sleepy after eating turkey?

Some people think they feel sleepy after a roast turkey dinner.

Turkey contains many of our essential dietary amino acids, one of which is called tryptophan.

Tryptophan provides serotonin, which has a tranquilizing effect and has been marketed as a natural sleep aid.

What about food safety?

Choose packages that are cold and tightly wrapped, free of holes and tears.

Promptly put poultry in fridge or freezer (on the bottom shelf on a plate or in a tight container).

- If you will not use ground chicken within one day, freeze it
- Chicken can be refrigerated for 1-3 days, freeze for longer storage

Immediately freeze any chicken that you don't plan to use within 1 –3 days.

Never defrost chicken at room temperature.

- Thaw poultry in the refrigerator or in the microwave

Remove cooked chicken meat from bones or carcass and stuffing before freezing or refrigerating.

Thoroughly wash hands, utensils, cutting boards and work surfaces during and after any handling of raw meat and poultry.

Don't cross contaminate

- Keep raw meat and poultry separate from cooked meats/poultry/produce
- Use separate cutting boards for meats and poultry

Cook until done

- The best way to judge if your poultry is done is to use a meat thermometer
    - Whole Chicken – 180°C (356°F)
    - Chicken Pieces – 170°C (338°F)
    - Ground Chicken – 175°C (347°F)

Stuff chicken just before cooking.

Do not defrost pre-stuffed frozen poultry – they are meant to be cooked from frozen state – make sure to read the cooking instructions.

Key Messages:

Poultry is an excellent source of protein.

Safe food handling practices are very important when handling meat and poultry.

Poultry can be cooked with many different methods depending on the type of cut you purchase.

Fortified with Fun:

Safely Separate

Now You're Cookin!:

Baked Chicken Nuggets

Turkey and White Bean Chili

Resources:

Chicken Farmers of Nova Scotia: www.nschicken.com

Nova Scotia Turkey Producers' Marketing Board: www.nsturkey.ca

Chicken Farmers of Canada: www.chicken.ca

Canadian Turkey Marketing Agency: www.canadianturkey.ca

What's Your Beef?

Objective:

To inform members about some of the characteristics and labelling information to look for when purchasing beef.

Processing Prompts:

Is our beef is safe?

What is marbeling?

What is the difference between heme and non-heme iron?

Background Information:

Is our beef safe?

There has been a lot of media coverage on the outbreak of Bovine spongiform encephalopathy (BSE) commonly known as "mad cow disease", which is a fatal, neurodegenerative disease found in cattle. It has received so much media coverage due to the possible transmission of this disease to people.

The Canadian Food Inspection Agency system is complex – with federal, provincial and municipal governments all playing a role in the process to ensure Canadians have access to a safe food supply.

The meat inspection stamp indicates the product has been inspected and meets Canadian requirements for food safety. It does not indicate grading nor does it mean the product was raised in Canada.



Source: Beef Info, www.beefinfo.org

Health Canada and the Canadian Food Inspection Agency are responsible for meat inspection as well as individual provincial organizations such as the provincial Ministries of Health or Agriculture.

What is grading?

Grading refers to eating quality. Beef grading is a completely voluntary system in Canada.

Once beef has been inspected and meets the Canadian Food Safety standards it can be graded for eating quality.

Canada's top grades are Canada Prime, Canada AAA, Canada AA and Canada A.

What is marbling?

Marbling refers to the fine white streaks of fat running through lean beef. Marbling enhances the eating quality of beef by increasing tenderness, juiciness and flavour.

Gristle differs from marbling in that it is not evenly distributed, doesn't dissolve easily when cooked, it's hard to chew and requires moist heat to soften.

Canadian Prime has the most marbling and Canada A has the least.

Should I buy my beef based on colour?

Many consumers mistakenly choose beef cuts by their colour; however, it is not the best indicator of quality.

When beef is first cut it is a deep reddish purple because it has not been exposed to air. Within minutes of having been exposed to air, the beef turns a bright red. If there is no oxygen getting through the packaging material the meat can remain the deep red.

It is natural for the inside of a package of ground beef to be dark while the outside is bright red.

If beef has been well aged it can also be slightly darker in colour.

The best indicator of the freshness is the "packaged on" or "best before" date.

What is the difference between extra lean, lean, medium and regular ground beef?

The difference is in the fat content. According to government regulations, all ground meats are defined as follows:

- Extra lean – no more than 10% fat
- Lean – no more than 17% fat
- Medium – no more than 23% fat
- Regular – no more than 30% fat

To remove extra fat, drain any excess fat after browning.

What are primal cuts?

Retail cuts are sorted by primal and sub-primal (smaller cuts taken from the primal cuts)

Primal cuts

- Hip
- Sirloin
- Loin
- Rib
- Chuck
- Flank
- Brisket/shank

Sub-primal examples

- Top loin
- Tenderloin
- Back ribs
- Rib-eye roast
- Blade

Why is iron important?

Iron found in food keeps your body healthy. Iron helps carry oxygen to all parts of your body so you can grow, move and breath.

Too little iron can lead to anaemia, which causes you to feel tired and irritable and can lower your attention span. In children it can lead to a reduced ability to learn and decrease growth.

Is iron the same whether it comes from meat or vegetables?

There are two types of iron found in foods

- Heme Iron
  - Is more readily absorbed by the body (23% of iron is absorbed)
  - Absorption is not changed by other foods
  - Found only in meat, fish and poultry
  - Important sources: beef, organ meat, lamb, pork, veal, turkey, chicken, fish and seafood
- Non-Heme Iron
  - Is not as well absorbed as heme iron (only 3-8 % of iron consumed is absorbed)
  - Absorption can be increased or decreased by other foods
  - Found in vegetables, fruits, grains, and eggs
  - Important sources: dried fruits, whole grain and enriched cereals and pasta, dark green vegetables and legumes

What are iron enhancers?

Certain foods can enhance the body's ability to absorb non-heme iron. These include meat, poultry, fish and foods rich in vitamin C like oranges, grapefruit, strawberries, cantaloupe and potatoes.

Try a glass of orange juice with a bowl of oatmeal or add meat to your bean chili.

What are iron inhibitors?

Some components of tea and coffee can limit the amount of iron your body can absorb from non-heme sources.

Some components found in spinach and whole grains can also limit the amount your body can absorb.

Key Messages:

Beef is an excellent source of heme iron and protein.

There are many characteristics and label information to review before purchasing your beef.

Fortified with Fun:

Stringy Soup Experiment

Safely Separate

Internet Activities:

Iron Challenge: www.beefinfo.org

Virtual Meat Counter: www.beefinfo.org/counter.cfm

Now You're Cookin!:

Make Ahead Homemade Burgers

Bison Barley Stew

Resources:

Beef Information Centre: www.beefinfo.org

Spice it up!

Objective:

To introduce herbs and spices and to learn how using them can allow you to taste different flavours from around the world.

Processing Prompts:

What is the difference between herbs and spices?

What are some of the spices you use at home?

What spices and herbs do you think come from Canada? Italy? India?

Background Information:

What is the difference between spices and herbs?

Spices come from the bark (cinnamon), root (ginger, onion, garlic), buds (cloves, saffron), seeds (yellow mustard, poppy, sesame), berry (black pepper) or the fruit (allspice, paprika) of tropical plants and trees.

Herbs are leaves of low growing shrubs. Herbs are seed-bearing plants without woody stems, which die down to the ground after flowering.

Other spices – dehydrated vegetable seasonings – include onion, garlic, sweet peppers, mint and mixed vegetables.

Condiments are usually a combination of herbs and spices blended in a liquid form such as ketchup, mustard, worcestershire sauce and Tabasco sauce; however, many of these contain sodium.

What is the history of spices?

When you walk down the spice section of the grocery store you see bottles of multicoloured powders. Some spices look fresh while other spices look like they were scooped up from another planet.

Wars have been fought and countries discovered because of treasured spices.

Marco Polo's stories of his trip to China in the late 1290s told of the spice trade in unknown lands and brought many Europeans in search of these spices.

In the 1400s- 1600s the Spanish, English, Portuguese and Dutch traders competed in the spice trade from the Far East. By the 1800s America was involved in the trade.

Many families in the colonies had their own herb gardens. Herbs and spices were also being imported from other countries. They were used for cuisine specialities, as preservatives for the food supply and for special medications.

What is so great about using herbs and spices?

The use of herbs and spices in cooking offers the chance to prepare exotic gourmet dishes or cultural meals and a way to cut or save calories and fat in cooking.

Herbs and spices should enhance and not overpower the flavour, keeping in mind that cultural preferences will influence your decision.

How do you cook with herbs and spices?

Be creative.

Be both a scientist and an artist as you learn to cook with spices. Start with several herbs and spices, learning the flavours and how they complement different dishes.

What are common spices and herbs used in other countries?

Spices enhance the natural sweetness of foods and are an important part of complex flavours of ethnic cuisine.

- Italian (oregano, rosemary)
- Mexican (cumin, chili pepper)
- Thai (ginger, cinnamon, garlic)
- Greek (garlic, dill weed)
- Indian (saffron, turmeric, cumin)
- Chinese (ginger, garlic)
- Spanish (thyme)
- Canadian (parsley)

Why can't you just flavour with salt?

Sodium is a mineral found in table salt

- 11% of the sodium we consume is extra salt we add at the table
- 12% of the sodium we consume naturally occurs in our food and water
- 77% of the sodium we consume is from processed food and restaurants

Sodium is measured in milligrams (mg)

- It is recommended that we only consume 2300 mg of sodium a day
- 1 tsp (5 mL) of salt contains - 2300 mg!
- 1 tsp (5 mL) of herbs and spices contains – 0 mg!

Much of the world's population consumes more than the body's requirement. Research suggests a link between high salt intake and high blood pressure creates a major risk for heart disease, stroke and kidney disease.

Key Messages:

Herbs and spices are a fun way to taste the flavours of the world.

Herbs and spices allow you to be both a scientist and artist.

Herbs and spices are more flavourful and are a healthy alternative to salt.

Fortified with Fun:

Spice World

That Makes Scents

Planting Your Own Herb Garden

Now You're Cookin!:

Salt-Free Seasoning

Chicken Fajita Stirfry

Fish

Objective:

To introduce the different types of fish and different ways to cook them.

Processing Prompts:

What are the benefits of eating fish?

How do you buy fresh fish?

What are some different ways of cooking fish?

Background Information:

Why should you eat fish?

Fish:

- Is low in fat
- Is low in cholesterol and calories
- High in protein
- Contains B vitamins
- Contains important Omega-3 fatty acids
- Contains calcium
- Contains iron

How do you choose fish?

The fish you see in stores may be farm raised or wild and are often sold as fillets or steaks.

Fillets

- Are the sides of a fish, cut lengthwise from the fish. They are available with or without skin.

Steaks

- Are pieces cut width wise from the whole fish and most often include a central bone.
  - Salmon, halibut and swordfish are most commonly sold as steaks.

What should you look for when buying fish?

Fresh fish:

- The fish flesh should be firm, with no browning or strong fishy odour
- Feel free to ask to smell the fish before purchasing
- Check whole fish to make sure that the skin is shiny, eyes are clear and slightly protruding and the gills are bright red and not slimy

Frozen fish:

- Package should be tightly wrapped and frozen solid with little or no gaps between the packaging and the fish
- There should be no dark, icy or dry spots – these are signs of freezer burn
- The package should be odour free

How do you store fish?

You should refrigerate fresh fish in the original wrapper and serve within a day or two of purchase.

Freeze in airtight sealable freezer bags if not using right away.

What are the different types of fish?

Flat fish

- Flat fish are thin, oval shaped and have eyes on top of their head
- Examples are sole, halibut, flounder, fluke, plaice
- They are mild tasting and lightly coloured
- Usually provides 4 fillets

Round fish

- Tube shaped body, one eye on each side of head
- Examples are rainbow trout, pickerel, bass, perch, red snapper, salmon
- Flavour and colour are individual to the type of fish
- Usually provides 2 fillets

What about shellfish?

Crustaceans

- Type of shellfish that has a segmented body with an outer shell, tail, small legs and usually two claws
- Examples are shrimp, lobster, crab and crayfish
- Have a heartier flavour and texture than fish

Molluscs

- Type of shellfish that has one or two hard shell pieces surrounding a soft body
- Examples include snails, squid, clams, oysters and mussels

How do you cook fish?

Poaching

- Gently cooking food in a liquid that is heated to just under the boiling point
- Fish can be poached in water or a flavourful liquid stock

Sautéing, pan-frying

- Sautéing and pan-frying are similar ways of cooking foods at high temperatures with oil

Baking

- Cook in a uncovered non-stick pan in the oven

Steaming

- Place fish fillets in a collapsible steamer in a covered casserole dish and cook over steaming liquid water or flavourful stock

Smoking

- The art of smoking is very old. Fish were originally smoked to prolong shelf life but this technique is now used for flavour
- Fish is cooked completely from exposure to dense smoke of smouldering sawdust or wood chips

How do you tell is your fish is cooked?

The secret to fish is not to over-cook it as fish will toughen and lose flavour and moisture if cooked too long.

Cook fish until the flesh is no longer translucent but opaque all the way through and separates easily with the touch of a fork.

- When fish is opaque it is no longer clear. This means that no light can pass though it. Opaque fish looks dull instead of shiny.

The thickness of the fish, not weight, determines the cooking time.

- 7-9 minutes per inch of thickness in the meatiest part for fresh or defrosted fish
- 10-12 minutes per inch of thickness for frozen fish

How can you get more fish into your diet?

"Eating Well with Canada's Food Guide" recommends including at least two servings of fish in your diet a week.

Use fish in your favourite casseroles, stir-fry, salads, soups and pastas.

Add fish into your diet gradually by replacing one meat serving a week with fish.

Add flavour to plain fish with herbs and spices.

Try salmon or tuna on sandwiches, wraps or on crackers as a snack.

Make your own fish sticks, fish burgers or fish loaves.

Don't be afraid to try new things!

Key Messages:

There are many way to prepare your favourite fish.

Try including fish into your diet at least once a week.

There are many health benefits to eating fish.

Fortified with Fun:

Don't Get Bugged by a Foodborne Illness

Wrap it Up!

Now You're Cookin!:

Honey Mustard Salmon Fillet

Tuna Noodle Casserole from Scratch

Resources:

Nova Scotia Department of Fisheries and Aquaculture: www.gov.ns.ca/fish/fhl

Celebration

Outdoor Cooking

Objective:

To demonstrate different outdoor cooking techniques and safe food handling practices when cooking outdoors.

Processing Prompts:

What are ways of cooking food outdoors?

What are some safety guidelines to remember when cooking with fire?

What is some important equipment needed for outdoor camping?

Background Information:

What is so great about cooking outdoors?

There is something very special about outdoor cooking. Everything seems to taste so good when prepared outdoors. But camp cooking requires a different set of rules and equipment then those we use at home.

What are ways you can cook outdoors?

Outdoor cooking can be experienced in many different ways depending on your time and resources.

Camp stoves

- Propane or gas powered and used like a grill or barbeque.
- Do not operate near another heat source such as a campfire.

Charcoal

- Used in a barbeque or fire ring.
- Provides consistent heat distribution.

Wood fires

- Provides practical and versatile cooking opportunities.
- Make sure to have the right kind of fire for your cooking method.
    - Low flame for frying
    - Quick flame for boiling

Buddy burner

- Is made with a large tin can turned upside down as the cooking surface is heated with a fire starter underneath.

Foil cooking

- Foil should be large enough to wrap around food and securely seal.
- Cook on a bed of glowing coals.

Box oven

- Works like a regular oven made with a cardboard box lined with heavy duty foil; inside is a layer of charcoal and a grill to set the food on.

Tin can cooking

- Using a large tin can, place your food inside, cover with foil and place over fire or lay on top of hot coals.

Cooking with pie irons

- Cooking with long handled double-sided cast iron cookers.

What are some outdoor cooking tips?

Measure ingredients for each meal ahead of time, pack in resealable bags and label.

Freeze meat before packing and keep in separate cooler. This is to avoid opening the cooler and letting the cold air out.

All items packed in the cooler should be packed in waterproof bags or containers.

To avoid unwanted visits from animals, keep the garbage cleaned up and food stored away in the car or hung above the ground at night.

Pre-chop ingredients such as vegetables and fruit for quick meal preparation and snacks.

Pre-cook rice or noodles at home, let cool and store in a bag in the cooler. When needed, just heat up and add to you favourite dish.

Prepare your menu ahead of time as to avoid over packing ingredients.

Boil a pot of water while cooking the rest of your meal for a fast and easy clean up.

Have a bucket of water and sand by the fire at all times in case of an emergency.

Have hand soap and dish soap out at all times to encourage proper hand-washing.

Leave your campsite as you found it.

What is common camping equipment?

Large water jugs

Thermos

Cooler

Table cloth

Fire essentials

The equipment needed for the desired type of outdoor cooking method

Paper towels

Garbage bags

Dish soap

Wash basins for personal use and dishes

Cooking utensils

Can opener

First aid kit

Fire starters

Potholders

Oven mitts

Plastic wrap

Plastic bags

Ice packs

Tin foil

Cooking spray

Napkins

Dishrags

Meat thermometer

What are the guidelines for fire safety?

Dig a small pit away from overhanging branches

Circle the pit with rocks

Clear a five foot area around the pit of any debris

Keep a bucket of water and sand nearby the fire

Stock extra wood away from the fire

After lighting the match discard in the fire or wait until it is cold before throwing the match away

Never leave a campfire unattended

Completely extinguish the fire before you go to sleep or when you leave the site if it is going to be left unattended

Key Messages:

There are many fun ways to cook outdoors.

Preparation, organization and planning are very important when cooking outdoors.

Safety first when it comes to fire and food.

Fortified with Fun:

Edible Fires

Snow Taffy

Cardboard Box Oven

Now You're Cookin!:

Foil Dinner Wrap

Tin Can Dinner

Types of Suppers

Objective:

To give the members an opportunity to learn about different ways of serving a meal.

Processing Prompts:

What is a progressive supper?

What is a potluck?

What is speed scratch cooking?

Background Information:

What is a progressive supper?

Progressive meals divide courses between groups of people and locations. Each group of people is responsible for preparing and serving their assigned course in their home.

The group meets at the location of the first course and then travels from house to house enjoying subsequent courses.

You will need to gather together a number of participants to take part. Invite friends, neighbours, school mates or members of the same 4-H club.

Each volunteer host agrees to provide one course of a meal. This needs to be carefully coordinated so you don't end up with the same dishes at every house!

This type of supper works well if people live fairly close together.

What is a potluck supper?

A potluck is a gathering of people for a meal where the participants bring food to be shared among everyone at the gathering.

A traditional rule is that each dish must be large enough to be shared among all of the anticipated guests.

Participants agree ahead of time to bring a single course, which results in a single multi-course meal.

Guests may bring any form of food, ranging from the main course to dessert.

A potluck still requires some organization as you will want to make sure your guests are not all bringing the same type of food.

What is a rota meal?

A rota meal is a variation on the potluck dinner.

Rota is short for rotation. With a rota meal the participants take turns providing food for the entire group rather than each participant bringing a dish.

This style of eating works well if you have a regular group of participants who can commit a full course for a number of participants on a regular schedule.

What is speed scratch cooking?

The term "speed scratch cooking" was coined in the late 1980s to describe a trend that has become common among food service operators.

This concept of purchasing prepared or semi-prepared food, adding a few fresh ingredients and developing a dish that has a "made from scratch" look.

This style of cooking can come in handy if you're trying to find something quick for supper, trying to use up leftover ingredients or rushing to find a dish to take to a supper party.

How can you adapt these types of suppers at home with your family?

Practice the rota meal with your own family by designating a day of the week for each family member- each member will make one full meal on that day.

- Make sure to plan a day where you are able to help in the kitchen.

Practice the potluck supper with your own family by designating one family member to one course of the meal. This way everyone is involved!

Sit down as a family for at least one to two meals a day.

Designate a day of the week to try a new food or dish from a different country.

Have your family take turns on clean-up and set-up of the dishes.

Every week sit down with your family and discuss a menu for the week and what nights are better for who to cook.

On weekends you could designate one person to make breakfast, another for lunch and another for supper.

Adapting these types of suppers allow you become more active in the kitchen and help out your family, as well as making mealtime more convenient, fun and easy!

How did fondue get started?

The delicious dish that you know today was actually invented out of necessity in the 18th century. Swiss villagers, who were separated from large towns by the long, freezing winters, were rarely able to enjoy fresh foods. Instead, most of the villagers had to rely on foods such as breads and cheese that had been made in the summer and needed to last through the winter.

Cheese became stale and bread became very hard and the villagers found that if they heated the cheese over a fire it tasted better and was much easier to eat. Furthermore, they found that the melted cheese softened the hard bread. Fondue suppers became very popular in America in the 1970s.

The word fondue comes from the French word “fonder” (to melt), which refers to the fact that the contents of the pot are kept in a liquid state.

What is proper fondue etiquette?

Dipping

- After you spear a small piece of bread, meat or fruit, dip into the pot to coat
- Remove it, but hold it over the pot for a few seconds to allow the sauce to drip back into the pot
- Remove the bread from the fork and put it on your plate

Fondue fork

- Don’t touch the fondue fork with your mouth
- Because the fork goes back into the pot, be careful not to touch it with your lips, tongue, or teeth
- It always helps to have an extra fork

Finger dipping

- Besides being rude, dipping your fingers into a pot of steaming hot sauce is not safe

Meat fondue

- Spear the meat so that the ends of the fork protrude slightly through the meat. This will prevent the meat from sticking or burning to the bottom of the pot
- Meat should be removed from the fondue fork and put on the plate before eating-it will likely need some time to cool!

Key Messages:

There are many types of suppers that can be very easily adapted into your own home.

Any sort of cooking requires preparation and organization.

Choose the style of cooking that best suits you and your family.

Fortified with Fun:

What's For Dinner?

Table Manner Skits

Now You're Cookin!:

Basic Chocolate Fondue

Bourguignon Fondue

Planning a Party

Objective:

To illustrate the essentials for planning a successful party.

Processing Prompts:

What are things you need to consider before planning a party?

What are some things you should do a couple of weeks before your party?

What is batch cooking?

Background Information:

What are party planning basics?

Any party, large or small, is built with the same basic elements but it's up to you to decide how elaborate plans become. Stay within your comfort zone so that you and your guests are more likely to enjoy themselves.

How can you plan for a party?

Cooking for a crowd requires extra planning. You cannot just cook more than what you normally would for your family. You will need to make specific plans.

To start planning for your party you need to ask yourself some questions:

- What is the theme of the gathering?
  - Is it built around a holiday, special event or simply for fun?
  - What do you want your guests to remember?
- When do you want this party to happen?
  - Think about dates and times that are most convenient for you.
- Where will it take place?
  - Indoors, outdoors, at your home, at a hall?
  - Make sure you have enough space to host your guests. Consider the size and layout of your home and how many people you can hold comfortably. If your space is not going to be big enough, it might be beneficial to look at other locations such as a hall, outdoor tent, hall, or church basement.
- Who is invited?
- How much can you spend?
  - Make a budget and stick to it

What about presentation?

Communication

- Send out invitations at least two weeks ahead
- The style and wording of your invitation should reflect the theme of your party.
  - Include date, start and end times, location, attire and RSVP information
  - Specify the type of party-potluck, dinner, appetizers

Decorations

- Use visual aids to set the mood
- Keep it simple depending on resources and budget
- Try using food as decorations, such as fruit/vegetable centre pieces, jam jar candle holders

Entertainment

- May want to include music and games, depending on the occasion

Logistics

- Do you need to rent tables and chairs, dishes and utensils?
- Do you need help with set-up and clean-up?
- Where is everyone going to sit and what bathroom are they going to use?

What do you need to think about for your party food?

Is your party a casual finger food mixer or a sit down feast?

Go with what you know. Be careful about trying new recipes you have never made before.

Cater to your guests: vegetarian, food allergies, diabetic, food intolerances, etc.

- Make sure you request to have this information communicated in the RSVP

Offer your guests a variety of choices, even if you are sticking with a theme.

Consider the balance between colour and texture throughout the menu.

Avoid a last second kitchen crunch and prepare as many dishes as you can ahead of time.

How do you prepare to cook for a crowd?

Make a budget, cooking for a crowd can be expensive.

To help choose your recipes, make a list of all the dishes you plan on serving and consider the cost of ingredients.

Decide in advance what recipes to make, plan cooking and preparation times accordingly.

Make a shopping list for your recipes' ingredients.

Plan ahead so you have space in your fridge, freezer and stove for the preparation and cooking.

Be sure to have enough pots, pans and serving dishes that are large enough to prepare and serve your recipes.

Some kitchen work can be done ahead of time, such as chopping vegetables, precooking beans, vegetables or meats for stews, sandwiches and dessert items.

Plan ahead how you are going to keep hot foods hot and cold foods cold.

Seek out recipes geared towards feeding a crowd, such as lasagne or potatoes.

Modifying a recipe for large quantities is not just a matter of multiplication. If you expand a recipe too much you are bound to run into trouble.

- Batch cooking requires planning ahead and cooking in advance, followed by freezing your prepared dishes until your party.
    - You also have a chance to test the recipe and leave room for any error.

You may want to consider choosing a different type of supper such as potlucks, or BYO (bring your own…)

What are some cooking for a crowd tips?

Select menu items that can be made a day or two in advance (batch cooking) so you are not exhausted.

Stay with dishes you are comfortable preparing; go for familiar food with a twist.

Set the table the night before.

Keep food safety in mind the whole time.

- Keep perishable foods, such as chicken, in the fridge except when ready to use
- Prepare food in batches and have out only what you are using.
- Refrigerate foods in small batches to ensure proper cooling
- Do not cross contaminate
- Remember food safety: Chill, Separate, Cool and Cook

Make sure your guests do not have any food allergies when determining your recipes.

Ask for help.

- If you want to cook and bake for the party, that's great; however, it would be a shame if you had to spend the whole time in the kitchen.
- Consider asking a friend or two to help finish the cooking and serving, as well as to help clean-up

Has a planning checklist been made?

- 2 –4 weeks ahead
  - Create a budget
  - Draw up a guest list
  - Choose a location
  - Decide on a menu
  - Send invitations
  - If it's a potluck, assign dishes to guests
  - Reserve rented items if any are needed
- 2 weeks ahead
  - Assess serving pieces and utensils
  - Assemble party flavours
  - Start compiling music and games
- 1 week ahead
  - Review menu preparation
  - Purchase non-perishable food items
  - Finalize RSVPs
- 3 days before
  - Clean house
- 2 days before
  - Purchase fresh meats
- 1 day before
  - Purchase fresh produce
  - Clean and iron any table clothes
  - Set table
  - Lay out serving pieces and utensils
  - Purchase flowers
  - Decorate

- Stock bathroom's toilet paper and guest towels
- Prepare food

- Party day
  - Put finishing touches on decorations
  - Eat something light before guests arrive
  - Take a deep breath, relax and enjoy

How do you not feel nervous?

After all of your hard work, you may start to feel nervous before your company arrives. TAKE A DEEP BREATH - be confident because you CAN pull off this successful event!

Key Messages:

Throwing a party requires planning and organization.

Make sure you keep your guests in mind while planning your party.

Do not leave all the planning, cooking and organization to the last minute.

Fortified with Fun:

What's For Dinner

Planning a Special Occasion

Table Manner Skits

Now You're Cookin!:

Hearty Fall Pot Roast

Gifts from the Kitchen

Objective:

To demonstrate the benefits of giving gifts from your own kitchen.

Processing Prompts:

What are the benefits of giving a homemade gift?

How should you choose what gift to give from the kitchen?

What are some ideas of gifts from the kitchen?

Background Information:

Why give homemade gifts?

The gift is much more personal. While it's nice to give money or fancy gifts, no gift is more appreciated than those that are homemade.

Gifts created in your kitchen are a special way to share a little piece of yourself with others.

You can also save money and monitor the nutritional value for those on specialized diets or needs.

How do you choose a gift from the kitchen?

A gift from the kitchen does not need to be elaborate or be made of costly ingredients.

Try to match the gift of food to the food likes of the person receiving it.

When thinking about the right gift, think about something:

- You enjoy making
- You and your family and friends could make together
- The recipient would not normally make for themselves
- That is you speciality
- That will fit into your budget

What are some ideas for gifts from the kitchen?

A loaf of homemade bread with a cutting board and knife

Tea or coffee in a fancy canister or cup with a spoon

Anything wrapped in a tea towel such as your favourite recipe book

Cookies in a cookie jar or flower pot

Uniquely shaped cookies with accompanying cookie cutters

Homemade dog biscuits with a dog treat canister

Homemade soup mix in a large soup bowl, crackers and a spoon

Cakes, cookies or dessert mixes in unique jars

Dried herbs and spices in a garden pot with seeds for their own herb garden

Homemade bubble solution with wands

Homemade play dough with fun cutters and moulds

Popcorn and homemade snacks in a movie themed container

Homemade pasta sauce with dried pasta

What about presentation?

The way the gift is presented can almost be as important as the food itself. In some cases it is nice to use a container that can be used after the food is gone.

Always keep food safety in mind.

Make sure to include the recipe.

- List the ingredients
- Date you made the food
- Specific storage and handling

Key Messages:

Gifts from the kitchen are personal and cost effective.

Try to match the gift of the food likes of the person receiving it.

Always keep food safety in mind when giving gifts from the kitchen.

Fortified with Fun:

Label Information

Now You're Cookin!:

Chocolate Cookie Mix in a Jar

Bath Bombs

Appendices

Appendix A: Vitamins and Minerals

NUTRIENT	FUNCTION	FOOD SOURCES
Protein	supplies energy builds and repairs body tissues builds antibodies, which fight infection	meat, fish, poultry, eggs, cheese, milk products, legumes, nuts, seeds
Fat	supplies energy aids in the absorption of fat soluble vitamins	margarine, butter, oils, salad dressing, nuts, cheese, meat
Carbohydrates	supplies energy	bread, cereals, pasta, rice, potatoes, fruit, sugar, syrup
Fibre	a type of undigestible carbohydrate encourages normal elimination of body wastes	whole grain breads and cereals, fruits, vegetables
FAT SOLUBLE VITAMINS		
Vitamin A	aids in night vision keeps skin, eyes and body linings healthy and resistant to infection aids in maintenance and growth of teeth, nails, hair, bones, and glands	liver, kidney, eggs, milk, butter, margarine, fish
Vitamin D	helps the body maintain and utilize the levels of calcium and phosphorous needed for strong bones and teeth prevents osteoporosis and rickets	liver, fortified milk, margarine, oils made by the skin when it is exposed to sunlight
Vitamin E	protects cell membranes found in all body tissues and keeps them healthy and functioning properly is an antioxidant	nuts, seeds, oil, fruit, vegetables
Vitamin K	essential for blood clotting made in our intestines by bacteria	green leafy vegetables, liver and soy beans, egg yolks, wheat, oats, potatoes, asparagus, butter, cheese
WATER SOLUBLE VITAMINS		
Vitamin C (ascorbic acid)	produces collagen, a substance that gives structure to muscles, blood vessels, bones, cartilage aids in the absorption of iron aids in the health of teeth and gums is an antioxidant	citrus fruits, potatoes, broccoli, sweet peppers, kale, cabbage, cauliflower, tomatoes, strawberries
Vitamin B1 (Thiamin)	helps the body use carbohydrates for energy essential for muscle coordination, maintaining nerves, and for growth	cereals, whole grains, pork, beef, lamb, poultry
Vitamin B2 (Riboflavin)	helps the body transform proteins, fats and carbohydrates into energy maintains healthy skin and eyes	milk, green vegetables, meat, fish, whole grains, cheese, eggs
Vitamin B3 (Niacin)	helps the body transform proteins and fats into energy	meat, fish, whole grains, wheat

Vitamin B6 (Pyridoxine)	aids in energy metabolism aids in the formation of amino acids (proteins) helps the nervous and immune systems to function properly	liver, salmon, walnuts, peanuts, wheat germ, bananas, grapes, carrots, peas, potatoes, beef, lamb, pork
Folic Acid	required for the formation of red blood cells, proteins, and DNA (genetic material) prevents certain types of anemia reduces birth defects like spina bifida by 50% if taken during pregnancy	liver, beans, peanuts, almonds, green leafy vegetables, strawberries, cantaloupe, whole wheat breads, cereals
Vitamin B12	necessary for the formation of DNA and healthy red blood cells maintains the nervous system essential for maintaining mental function	kidney, liver, shellfish, sardines, salmon, herring, egg yolks
Biotin	necessary for breaking down fat, protein and carbohydrates maintains thyroid and adrenal glands, nervous system, reproductive tracts and the skin	yeast, liver, kidney, eggs
Pantothenic Acid	essential for formation of nerve regulators and hormones essential for the metabolism of protein, fats and carbohydrates	yeast, liver, kidney, eggs, peanut products, rice bran, wheat bran
MACROMINERALS		
Sodium	plays a role in water and pH balance aids in nerve transmission and muscle contraction	salt, meat, seafood, cheese, milk, bread, vegetables (abundant in all foods except fruit)
Potassium	plays a role in water and pH balance helps transfer substances in and out of cells	avocado, banana, dried fruits, orange, peach, potatoes, dried beans, tomato, wheat bran, dairy products, eggs
Chloride	plays a role in water and pH balance activates enzymes	table salt, seafood, milk, meat, eggs
Calcium	aids in formation of strong bones and teeth promotes healthy nerve function and normal blood clotting	milk products, sardines, salmon with bones, mackerel, oysters, legumes, tofu, nuts, seeds
Phosphorous	aids in formation and maintenance of strong bones and teeth	cheese, peanuts, fish, beef, pork, breads, eggs, milk
Magnesium	aids in the formation and maintenance of strong bones and teeth aids in energy metabolism and tissue formation	nuts, soy beans, whole grains, molasses, shellfish, spinach, liver, beef
MICROMINERALS		
Iron	combines with protein to form hemoglobin, the part of blood that transports oxygen and carbon dioxide	organ meats, red meats, enriched grain products, legumes, dried fruits
Zinc	aids in energy metabolism and tissue formation	shellfish, organ meats, meat, fish, poultry, nuts, eggs, legumes, whole grains, seeds, sprouts

Iodine	aids in the function of the thyroid gland	seafood, iodized salt
Copper	necessary for the absorption and use of iron to make hemoglobin	meats, drinking water (from copper pipes), legumes, grains, nuts, seeds
Chromium	works with insulin to enhance the movement of glucose into the cells	Brewer's yeast, mushrooms, prunes, nuts, peanut butter, asparagus, wine, beer, meat, whole grains, cheese, seafood
Flourine	maintenance of teeth and bone structure	mackerel, sardines, salt, pork, salmon, shrimp, meat, sunflower seeds, kale, potatoes, watercress, honey, wheat, drinking water in some locations

Appendix B: Bacteria That Cause Foodborne Illness

Reference: Center for Food Safety and Applied Nutrition- http://www.foodsafety.gov/~dms/fsefborn.html

BACTERIA	FOUND	TRANSMISSION	SYMPTOMS
Campylobacter jejuni	Intestinal tracts of animals and birds, raw milk, untreated water and sewage sludge.	Contaminated water, unpasteurized milk and raw or undercooked meat, poultry, or shellfish.	Fever, headache and muscle pain followed by diarrhea (sometimes bloody), abdominal pain and nausea that appears 2 to 5 days after eating; may last 7 to 10 days.
Clostridium botulinum	Widely distributed in nature, soil, water, on plants and intestinal tracts of animals and fish. Grows only in little or no oxygen.	Bacteria produce a toxin that causes illness. Improperly canned foods, garlic in oil, vacuum-packaged and tightly-wrapped food.	Toxin affects the nervous system. Symptoms usually appear 18 to 36 hours, but can sometimes appear as few as 4 hours or as many as 8 days after eating; double vision, droopy eyelids, trouble speaking, swallowing, and difficulty breathing. Fatal in 3 to 10 days if not treated.
Clostridium perfringens	Soil, dust, sewage, and intestinal tracts of animals and humans. Grows only in little or no oxygen.	Called “the cafeteria germ” because many outbreaks result from food left for long periods in steam tables or at room temperature. Bacteria destroyed by cooking, but some toxin-producing spores may survive.	Diarrhea and gas pains may appear 8 to 24 hours after eating; usually last about 1 day, but less severe symptoms may persist for 1 to 2 weeks.
Escherichia coli O157:H7	Intestinal tracts of some mammals, raw milk, unchlorinated water; one of several strains of E. coli that can cause human illness.	Contaminated water, unpasteurized milk, raw or rare ground beef, unpasteurized apple juice or cider, uncooked fruits and vegetables; person-to-person.	Diarrhea or bloody diarrhea, abdominal cramps, nausea and depression; can begin 2 to 5 days after food is eaten, lasting about 8 days. Some, especially the very young, have developed hemolytic-uremic syndrome (HUS) that causes acute kidney failure. A similar illness, thrombotic thrombocytopenic purpura (TTP), may occur in adults.
Listeria onocytogenes	Intestinal tracts of humans and animals, milk, soil, leaf vegetables; can grow slowly at refrigerator temperatures.	Ready-to-eat foods such as hot dogs, luncheon meats, cold cuts, fermented or dry sausage, and other deli-style meat and poultry, soft cheeses and unpasteurized milk.	Fever, chills, headache, backache, sometimes upset stomach, abdominal pain and diarrhea; may take up to 3 weeks to become ill; may later develop more serious illness in at-risk patients (pregnant women and newborns, older adults and people with weakened immune systems).

Salmonella (over 2300 types)	Intestinal tracts and feces of animals; Salmonella Enteritidis in eggs.	Raw or undercooked eggs, poultry and meat, unpasteurized milk and dairy products, seafood and food handlers.	Stomach pain, diarrhea, nausea, chills, fever and headache usually appear 8 to 72 hours after eating; may last 1 to 2 days.
Shigella (over 30 types)	Human intestinal tract; rarely found in other animals.	Person-to-person by fecal-oral route; fecal contamination of food and water. Most outbreaks result from food, especially salads, prepared and handled by workers with poor personal hygiene.	Disease referred to as “shigellosis” or bacillary dysentery. Diarrhea containing blood and mucus, fever, abdominal cramps, chills, and vomiting; 12 to 50 hours from ingestion of bacteria; can last a few days to 2 weeks.
Staphylococcus aureus	On humans (skin, infected cuts, pimples, noses, and throats).	Person-to-person through food from improper food handling. Multiply rapidly at room temperature to produce a toxin that causes illness.	Severe nausea, abdominal cramps, vomiting and diarrhea occur 1 to 6 hours after eating; recovery within 2 to 3 days — longer if severe dehydration occurs.

Appendix C: Fruit Freezing Chart

Reference: Manitoba Agriculture Food and Rural Initiatives: www.gov.mb.ca/agriculture

FRUIT	PREPARATION	PACKING
Apples	Peel, core and slice	1/4 cup sugar and 1 Tbsp lemon juice or 1/4 tsp ascorbic acid to 1L (4 cups) apples
Applesauce	Peel, core and slice apples Cook until tender	Sweeten to taste. Cool. Package and freeze
Bananas	Peel and mash. Add 3/4 tsp. lemon juice to one banana	Use for baking
Whole Banana	Place in freezer with skin	Use for baking
Blueberries	Stem	Pack without sugar
Cranberries, Currants	Stem	Pack without sugar
Peaches, Apricots	Dip in boiling water for 30 seconds, cool in cold water and slip skin off. Cut in half, remove the pit, and slice.	Dry sugar pack with ascorbic acid using 175 ml (3/4 cup) sugar to 1L (4 cups) prepared fruit
Raspberries, Blackberries	Leave whole	Mix 175 ml (3/4 cup) sugar with 1 L (4 cups) prepared fruit or pack without sugar
Saskatoon	Leave whole	Pack without sugar
Rhubarb	Cut stalks in 3 cm (1 1/2") lengths. Another method is to cook with 125 ml (1/2 cup) water until tender	Pack without sugar Sweeten to taste. Cool, package and freeze
Strawberries	Remove stems Leave whole or cut in quarters Remove stems and leave whole	Mix 125 ml (1/2 cup) sugar with 1L (4 cups) whole berries or 175 ml (3/4 cup) sugar to 1 L (4 cups) quartered or sliced berries. Pack without sugar

Appendix C: Vegetable Blanching Chart

VEGETABLE	PREPARATION	BLANCHING TIMES
Asparagus	Remove tough ends and sandy scales. Cut into even lengths	Medium – 3 minutes Large – 4 minutes
Beans Green or Wax Lima Broad	Trim blossom ends. Leave whole or cut 3 cm (1 1/2 “) pieces Can French cut, too Shell and sort according to size Shell if mature	Whole - 3 minutes Cut - 2 minutes Small – 2 mins Med – 3 mins Lrg – 4 mins 2-3 minutes
Beets	Leave roots end on, cut off tops leaving 3 cm (1 1/2”) stems Cook in boiling water until tender. Cool Peel and slice or dice	None
Broccoli	Remove woody stems and trim; cut stalks to about 3 cm (1 1/2”) across	Medium – 3 minutes Large – 4 minutes
Cabbage	Trim out leaves and core. Cut in wedges or shred coarsely	Wedges - 2 minutes Shredded - 1 minute
Carrots	Remove tops and peel Leave small carrots whole. Cut large carrots into 1 cm (1/2 “) slices or dice or cut lengthwise into fingers	Cut – 3 minutes Whole – 5 minutes
Corn	Whole Kernel- Remove husks and silks On Cob – Remove husks, trim cobs	4 minutes, then cut kernels from cob Small – 7 mins Med – 9 mins Lrg– 11 mins
Fiddleheads	Leave whole	2 minutes
Mushrooms	Wild – Wash with cold water twice Domestic – Slice and fry 500 mL (2 cups) mushrooms in 30 ml (2 tbsp) of butter for 4 minutes	12 minutes None
Onions	Remove outer skin, roots and stem ends. Chop. Also can fry 500 ml (2 cups) onions in 15 ml (1 Tbsp) of butter for 4 minutes	None
Peas	Regular – Shell Edible pods – Remove stem and blossom and leave whole	2 minutes 3 minutes – Keeps for 6 months
Peppers – Green or Red	Remove stem and seeds Leave whole or cut in half or chop	None
Rutabaga and Turnips	Peel, dice and boil until tender or Peel and dice	None 2 minutes
Spinach, beet greens and Swiss chard.	Wash twice. Cut in 3 cm (1 1/2”) pieces or leave leaves whole (i.e. spinach)	2 minutes
Squash, pumpkin	Peel, dice, cook and mash	None
Tomatoes	Dip in boiling water for 30 seconds, cool and slip skin off. Add 5 ml (1 tsp) salt, 5 ml (1 tsp) of pepper, and 5 ml (1 tsp) sugar to 1 Kg (2 lb) tomatoes. Cook gently until tender (5-6 minutes)	None
Zucchini	Cut in 1 cm (1/2 “) slices	2 minutes

Appendix D: Recommended Internal Cooking Temperatures

Reference: Canadian Partnership for Food Safety: www.canfightbac.org

GROUND MEAT	
BEEF, PORK, VEAL	71°C (160°F)
CHICKEN, TURKEY	80°C (176°F)
FRESH BEEF	
RARE	63°C (145°F)
MEDIUM	71°C (160°F)
WELL DONE	77°C (170°F)
ROLLED BEEF ROASTS OR STEAKS	71°C (160°F)
BEEF MINUTE STEAK	71°C (160°F)
FRESH PORK	
PORK CHOPS	71°C (160°F)
ROASTS	71°C (160°F)
FRESH CURED HAM	71°C (160°F)
COOKED HAM (TO REHEAT)	60°C (140°F)
POULTRY	
CHICKEN, TURKEY - WHOLE, STUFFED	82°C (180°F)
CHICKEN - WHOLE, UNSTUFFED	82°C (180°F)
TURKEY - WHOLE, UNSTUFFED	77°C (170°F)
CHICKEN, TURKEY - PIECES	77°C (170°F)
STUFFING	
COOKED ALONE	74°C (165°F)
EGGS & EGG DISHES	
EGG CASSEROLES, SAUCES, CUSTARDS	71°C (160°F)
LEFTOVERS	
REHEATED	74°C (165°F)

Appendix E: Recommended Food Storage Chart

Reference: Canadian Partnership for Food Safety: www.canfightbac.org

	REFRIGERATOR 4°C (40°F)	FREEZER - 18°C (0°F)
FRESH MEAT		
Beef - Steaks, Roasts	2 - 4 days	10 - 12 months
Pork - Chops, Roasts	2 - 4 days	8 - 12 months
Lamb - Chops, Roasts	2 - 4 days	8 - 12 months
Veal Roasts	3 - 4 days	8 - 12 months
Ground Meat	1 - 2 days	2 - 3 months
FRESH POULTRY		
Chicken, Turkey - whole	2 - 3 days	1 year
Chicken, Turkey - pieces	2 - 3 days	6 months
FRESH FISH		
Lean fish (e.g., cod, flounder)	3 - 4 days	6 months
Fatty fish (e.g., salmon)	3 - 4 days	2 months
Shellfish (e.g., clams, crab, lobster)	12 - 24 hours	2 - 4 months
Scallops, Shrimp, Cooked Shellfish	1 - 2 days	2 - 4 months
HAM		
Canned ham	6 - 9 months	Don't Freeze
Ham, fully cooked (half & slices)	3 - 4 days	2 - 3 months
BACON & SAUSAGE		
Bacon	1 week	1 month
Sausage, raw (pork, beef, turkey)	1 - 2 days	1 - 2 months
Pre - cooked, smoked links or patties	1 week	1 - 2 months
LEFTOVERS		
Cooked meat, stews, egg or vegetable dishes	3 - 4 days	2 - 3 months
Gravy & meat broth	1 - 2 days	2 - 3 months
Cooked poultry and fish	3 - 4 days	4 - 6 months
Soups	2 - 3 days	4 months
HOT DOGS & LUNCH MEATS		
Hotdogs	2 weeks	1 - 2 months
Hotdogs - Opened	1 week	
Lunch meats	2 weeks	1 - 2 months
Lunch meats - Opened	3 - 5 days	1 - 2 months
DELI FOODS		
Deli meats	3 - 4 days	2 - 3 months
Store - prepared or homemade salads	3 - 5 days	Don't freeze
TV DINNERS / FROZEN CASSEROLES		
Keep frozen until ready to serve		3 - 4 months

	REFRIGERATOR 4°C (40°F)	FREEZER - 18°C (0°F)
EGGS		
Fresh - in shell	3 - 4 weeks	Don't Freeze
Fresh - out of shell	2 - 4 days	4 months
Hardcooked	1 week	Doesn't freeze well
Egg substitutes	10 days	1 year
Opened	3 days	Don't freeze
DAIRY PRODUCTS		
Milk	Check Best Before date	6 weeks
Milk - opened	3 days	
Cottage cheese	Check Best Before date	Doesn't freeze well
Cottage cheese - opened	3 days	
Yoghurt	Check Best Before date	1 - 2 months
Yoghurt - opened	3 days	
Cheese - Soft	1 week	Doesn't freeze well
Cheese - Semi - soft	2 - 3 weeks	8 weeks
Cheese - Firm	5 weeks	3 months
Cheese - Hard	10 months	Up to a year
Cheese - Processed	Several months	3 months
Cheese - Opened	3 - 4 weeks	Don't freeze
Butter - Salted	8 weeks	1 year
Butter - Unsalted	8 weeks	3 months
Butter - Opened	3 weeks	Don't freeze
COMMERCIAL MAYONNAISE		
(refrigerate after opening)	2 months	Don't freeze
VEGETABLES		
Beans, green or waxed	5 days	8 months
Carrots	2 weeks	10 - 12 months
Celery	2 weeks	10 - 12 months
Lettuce, leaf	3 - 7 days	Don't freeze
Lettuce, iceberg	1 - 2 weeks	Don't freeze
Spinach	2 - 4 days	10 - 12 months
Squash, summer	1 week	10 - 12 months
Squash, winter	2 weeks	10 - 12 months
Tomatoes	Not recommended	2 months

Appendix F: Internet Activities Summary

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

Eating and Activity Tracker – *Junior, Intermediate, Senior*

An interactive toll that lets you track your day's food and activity choices and compares them to the recommendations set by Health Canada
http://www.dietitians.ca/public/content/eat_well_live_well/english/eatracker/

Dining Decisions – *Junior*

An Interactive toll that allows members to choose food items for a healthy balanced diet
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, Senior*

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 – *Junior, Intermediate, Senior*

An interactive tool to learn about the nutrition information on the labels of packaged foods
http://www.healthyeatingisinstore.ca/virtual_grocery.asp

Interactive Nutrition Label and Quiz – *Junior, 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

Cooking 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 teach members about 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

Virtual Meat Counter - Pork – *Junior, Intermediate, Senior*

An interactive tool to teach members 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

Appendix G: Metric Conversion Guide

VOLUME	
Imperial	Metric
1/4 teaspoon	1 mL
1/2 teaspoon	2 mL
1 teaspoon	5 mL
1/4 cup	60 mL
1/3 cup	75 mL
1/2 cup	125 mL
2/3 cup	150 mL
3/4 cup	175 mL
1 cup	250 mL
1 quart	1 litre
1 1/2 quarts	1.5 litres
2 quarts	2 litres
2 1/2 quarts	2.5 litres
3 quarts	3 litres
4 quarts	4 litres
Weight	
1 ounce	30 grams
2 ounces	55 grams
3 ounces	85 grams
4 ounces (1/4 pound)	115 grams
8 ounces (1/2 pound)	225 grams
16 ounces (1 pound)	455 grams
1 pound	455 grams
TEMPERATURES	
Fahrenheit	Celsius
32°	0°
212°	100°
250°	120°
275°	140°
300°	150°
325°	160°
350°	180°
375°	190°
400°	200°
425°	220°
450°	230°
475°	240°
500°	260°

Appendix H: Glossary

Al dente: description for the doneness of pasta that is cooked until tender but firm to the bite.

Amino Acids: organic compounds that function as the building blocks of protein. There are 22 known amino acids.

Bacteria: are one-celled organisms.

Baking powder: leavening mixture that includes baking soda, which is an acid plus a moisture absorber. Baking powder forms carbon dioxide, the gas that makes dough rise, twice: once when mixed with moist ingredients and once during baking.

Baking soda: leavening agent also called bicarbonate of soda. Must be mixed with an acid ingredient to release its carbon dioxide gas bubbles, which makes baked goods rise.

Baking: cooking in the oven using dry heat and usually refers to cakes, cookies, breads, custards and puddings. Baking cookies or cakes at the same time as watery foods like custards or soft pudding may make cakes and cookies too moist because of the steam given off. Leave plenty of room in the oven around each pan. Don't place plans directly under each other on the racks. Stagger them for maximum heat circulation.

Basting: keeps food moist during cooking. Spoon on the sauce, pan drippings, marinade or melted butter on the food when roasting. This adds flavour and keeps the food from drying out. Use a spoon, brush or baster.

Beating: the method of vigorously mixing ingredients like eggs or cake batter, to incorporate air. An electric mixer does the job easily. Be careful not to over beat, which can make the mixture dry and heavy. To beat by hand, use a whisk or a wooden spoon and turn the mixture over and over in a circular motion to bring the batter on the bottom to the top.

Blanch: is to plunge food into boiling water for a brief time to preserve colour, texture and nutritional value, or to remove skin.

Braise: is to cook slowly in a little liquid in a covered pan.

Bread: is to coat with flour, then dip into slightly diluted beaten egg or milk, and finally coat with bread, cereal or cracker crumbs.

Calories: is the general term for energy in food used synonymously with the term energy, term often used instead of kilocalories.

Caramelize: is to melt sugar slowly over heat until it becomes a golden brown, caramel-flavoured syrup. Another method is to sprinkle granulated, powdered or brown sugar on top of a food, then place it under a broiler until the sugar is melted and caramelized.

Carbohydrates: compounds including sugars, starches and dietary fibres. Carbohydrates are the major source of energy for bodily functions. Sugars are simple carbohydrates. Starches and dietary fibre are complex carbohydrates.

Chill: to place food in a refrigerator until it is thoroughly cold.

Cholesterol: a waxy-like fatty substance produced naturally by the body. It is also found in all animals. The body makes enough cholesterol to meet its needs. Too much cholesterol may cause a build-up of fat along the artery walls that can lead to serious health risks.

Chop: to cut food into small pieces with a knife.

Coat: to cover food evenly with flour, crumbs or batter.

Cool: to allow hot food to stand at room temperature until it reaches a desired temperature. Placing hot food on a wire rack will help it cool more quickly. Occasional stirring will help a mixture cool more quickly and evenly.

Cream: to make a fat, such as butter, soft and smooth by beating with a spoon or mixer. Also, to combine a fat with sugar until mixture is light and fluffy.

Cube: to cut a solid food into cubes.

Cut In: to mix evenly a solid fat into dry ingredients (e.g. shortening into flour) by chopping with two knives or a pastry blender.

Dice: to make small cubes of about .5 cm by .5 cm.

Dietary Fibre: is technically a complex carbohydrate. Fibre is the part of plant-based foods that isn't broken down or used by our bodies.

Dough: is a stiff pliable mixture of flour, liquid and other ingredients (often including a leavening agent). Dough can be dropped from a spoon onto a baking pan, rolled or kneaded.

Dredge: means to coat food with another ingredient, usually flour or bread crumbs.

Emulsification: the formation of a mixture of two non-blendable liquids. For example, mixing oil and water.

Enzymes: proteins in the body that speed up the rate of chemical reactions. In digestion, for example, enzymes break down nutrients into smaller compounds to ensure proper absorption.

Folding In: to add light, air-filled foods such as whipping cream or beaten egg whites, to a heavier mixture. It must be done more gently than beating, stirring or mixing so the airy texture is not lost. Spoon the lighter mixture over the heavier one. Using a rubber spatula, cut down into the batter and bring the spatula up along the bottom of the bowl. Turn the bowl a little and repeat the cut-and-fold motion. Continue gently, folding and turning until the lighter mixture is evenly distributed.

Gluten: A protein group found in wheat and other flours that forms the structure of the bread dough. Gluten holds the carbon dioxide (CO_2) produced by the yeast and expands during fermentation, and provides the elasticity and extensibility (stretch) in bread dough.

Grate: to rub food against a grater to form small particles.

Hormones: chemical messengers that are secreted into the blood by one tissue and act on cells in another part of the body to tell the cells how to function.

Kilocalories: units used to measure energy. Food energy is measured in kilocalories (1,000 calories=1 kilocalorie).

Knead: to manipulate dough with a pressing motion accompanied by folding and stretching. For yeast bread, fold dough toward you, push dough away using the heel of your hand. Rotate, turn and repeat. For tea biscuits, kneading process is much less vigorous and requires less time.

Leavening Agent: an ingredient that produces gas in dough or batter by fermentation, causing the dough or batter to rise and lighten. Yeast, baking powder and baking soda are all common leavening agents.

Marinate: to let food stand in a seasoned sauce to tenderize and increase flavour.

Microorganisms: living things so small that they can only be seen with a microscope.

Mince: to cut or chop into small pieces, (smaller than diced).

Minerals: inorganic nutrients that perform important jobs in the body. Examples of minerals are calcium, phosphorous, magnesium, sodium, potassium, iron and zinc.

Monounsaturated Fats: highly unsaturated fats with one double bonded carbon; are liquid at room temperature and found naturally in foods like nuts, avacados, and olive oil.

Nutrients: Substances that build, repair, and maintain body cells. Nutrients include protein, carbohydrate, fat, water, vitamins and minerals.

Organisms: living things.

Osteoporosis: a bone disease characterized by a decrease in bone mineral density with the appearance of small holes in the bone.

Parboil: to cook food in a boiling liquid until partially done. Cooking is usually completed by another method.

Pare: to remove outer covering of a fruit or vegetable with a knife.

Pathogens: disease-causing organisms.

Peel: to strip off or pull away the outer covering of a fruit or vegetable.

Perishable food: foods that spoil easily such as meat, fish, poultry, dairy products and cooked vegetables, as well as mixed dishes that contain any of these foods.

pH: the measure of acidity and alkalinity, which is gauged on a scale of 0 to 14. Seven represents neutrality. Lower numbers indicate increasing acidity and higher numbers indicate increasing alkalinity.

Poach: to cook slowly in simmering liquid such as water or milk.

Polyunsaturated Fats: highly unsaturated fats with more than one double bond; are liquid at room temperature and naturally found in grain products, fish and sea food (herring, salmon, mackerel, halibut), soybeans and fish oil. Omega-3 is a polyunsaturated fat.

Protein: large compounds consisting mainly of amino acids. Proteins help build and maintain body structure and regulate body processes.

Psyllium: Psyllium husk comes from the crushed seeds of the Plantago Ovata plant, which is a herb native to parts of Asia, the Mediterraean and North America. Similar to oats and wheat, psyllium is rich in soluble fibre. Traditionally used as a gentle bulk forming laxative for constipation.

Purée: to put food through a sieve, blender or processor to produce the thick pulp or paste with juice.

Serotonin: a chemical messenger in the brain that affects emotions, behaviour and thought. It also acts as a calming agent and therefore, plays a role in sleep.

Shred: to cut into long, thin strips with a knife or shredder.

Simmer: to cook in liquid just below boiling point; bubbles form slowly and burst before reaching surface.

Steam: to cook food in a covered container positioned above boiling water.

Steep: to let stand for a few minutes in water that has just been boiled to enhance flavour and colour.

Stew: to simmer slowly in liquid deep enough to immerse.

Stir-fry: to cook in a fry pan or wok over high heat in a small amount of fat, tossing or stirring constantly.

Stir: to mix ingredients in a circular motion until blended with uniform consistency.

Toast: to brown with dry heat in an oven or toaster.

Toxin: a poison made by a living cell. Toxins can cause disease.

Tryptophan: an essential amino acid formed from proteins during digestion. Tryptophan is necessary for normal growth and development and is the precursor to several substances including niacin and serotonin.

Viscosity: the thickness or resistance to flow of liquid. Taffy and molasses are very viscous. Water has a low viscosity.

Vitamins: organic compounds that play important metabolic roles. Classified as either water-soluble or fat-soluble. Vitamins cannot be manufactured by the body and must be obtained through the diet.

Whip: to beat rapidly with a wire whisk, beater or mixer to incorporate air in after to lighten and increase volume.

References:

Resources

* To locate the office/division in your province*

Food Safety

Canadian Partnership for Consumer Food Safety Education

RR #2, Cambridge, ON, N3C 2V4

1-519-651-2466

www.canfightbac.org

National Center for Home Food Preservation

The University of Georgia

208 Hoke Smith Annex, Athens, GA, 30602-4356

www.uga.edu/nchfp

An Introduction of On Farm Safety Practices

Canadian Farm Business Management Council (CFBMC)
Suite 1101, 75 Albert Street

Ottawa, Ontario

www.cfbmc.com

Canadian Federation of Agriculture: www.cfa-fca.ca

Canadian Food Inspection Agency: www.inspection.gc.ca

Eating Well with Canada's Food Guide

Health Canada

Ottawa, ON, K1A 0K9

1-866-225-0709

www.healthcanada.gc.ca/foodguide

*** Dietitians of Canada**

480 University Avenue, Suite 604, Toronto, ON, M5G 1V2

1-416-596-0857

www.dietitians.ca

Capital Health

www.capitalhealth.ca/yourhealth

*** Heart and Stroke Foundation of Canada**

www.heartandstroke.ca

Healthy Eating is in Store for You

www.healthyeatingisinstore.ca

Kellogg's Canada Inc.

Box 9000, Paris, ON, N3L 3K5

1-888-876-3750

www.kelloggs.ca

Field to Fork

Mayo Clinic: http://www.mayoclinic.com/health

Pulse Canada

1212-220 Portage Avenue, Winnipeg, MB, R3C 0A5

1-204-925-4455

www.pulsecanada.com

Canadian Egg Marketing Agency

112 Kent Street, Suite 1501, Ottawa, ON, K1P 5P2

www.canadaegg.ca

Get Cracking - www.eggs.ca

Nova Scotia Egg Producers - www.nseggs.ca

Horticulture Nova Scotia - www.hortns.ca

Nova Scotia Fruit Growers Association - www.nsapples.com

Wild Bluberry Producers Association of nova Scotia - www.nswildblueberries.com

Maple Producers Association of Nova Scotia - www.novascotiamaplesyrup.com

Pork Nova Scotia: www.pork.ns.ca, Nova Scotia Beekeepers Association - E-mail: nsba@ns.sympatico.ca

Nova Scotia Turkey Producers' Marketing Board - www.nsturkey.ca

Chicken Farmers of Nova Scotia - www.nschicken.com

Nova Scotia Cattle Producers - www.nscattle.ca Nova Scotia Federation of Agriculture - www.nsfa-fane.caPure

Purebred Sheep Breeders Association of Nova Scotia - www.sheepnovascotia.ns.ca

Canadian Produce Marketing Association

162 Cleopatra Drive, Ottawa, ON, K26 5X2

1-613-226-4187

www.cpma.ca

Canadian International Grains Institute

1000-303 Main Street, Winnipeg, MB, R3C 3G7

1-204-983-5344

www.cigi.ca

Canola Council of Canada

400-167 Lombard Avenue, Winnipeg, MB, R3B 0T6

1-204-982-2100

www.canola-council.org

Canadian Oilseed Processors Association

2150-360 Main Street, Winnipeg, MB R3C 3Z3

1-204-956-9500

www.copaonline.net

Agriculture and Agri-Food Canada
http://www.agr.gc.ca/

Dairy Farmers of Nova Scotia
www.dfns.ca

Dairy Farmers of Canada
www.dairygoodness.ca

***Osteoporosis Society of Canada**
1090 Don Mills Road, Suite 301, Toronto, ON, M3C 3R6
1-800-463-6842
www.osteoporosis.ca

Pick Pork
28 Terracon Place, Winnipeg, MB, R2J 4G7
www.pickpork.com

***Put Pork on your Fork**
www.putporkonyourfork.com

Canadian Pork Council
1101-75 Albert Street, Ottawa, ON, K1P 5E7
1-613-236-9239
www.cpc-ccp.com

Chicken Farmers of Canada
350 Sparks Street, Suite 1007, Ottawa, ON, K1R 7S8
www.chicken.ca

Canadian Turkey Marketing Agency
7145 West Credit Avenue, Building I, Suite 202, Mississauga, ON, L5N 6J7
1-905-812-3140
www.turkeyfordinner.ca
www.canadianturkey.ca

*** Beef Information Centre**
1550 Bedford Highway, Suite 210, Bedford, NS, B4A 1E6
1-902-835-2959
www.beefinfo.org

Food for Thought

Organic Agriculture Centre of Canada
Nova Scotia Agricultural College
Box 550, Truro, NS, B2N 5E3,
1-902-893-7256
www.organicagcentre.ca

Manitoba Agriculture Food and Rural Initiatives
www.gov.mb.ca/agriculture

Ontario Ministry of Agriculture Food and Rural Affairs
www.omafra.gov.on.ca

Canadian Food Inspection Agency
http://www.inspection.gc.ca/

*** Agriculture in the Classroom**
http://www.aitc.ca/

Fundamentals

Kids Health
www.kidshealth.org

Mastering Baking Techniques: Measuring Ingredients from Dummies.com
http://www.dummies.com/WileyCDA/DummiesArticle/id-1084.html

Family Education
www.familyeducation.com

Tanners Manners
www.tannersmanners.com

Nutrition Labelling Education Centre
www.healthyeatingisinstoreforyou.ca

Marian Graphics Development Group (2006). Marian Illustrated Cooking Basics. Course Technology, PTR

Backyard and Beyond

Stewart, A. (2005). A Celebration of the Finest Regional Foods. Vancouver, BC. Raincoast Books.
World Food: www.worldfood.com

Cooking it Right

Marian Graphics Development Group (2006). Marian Illustrated Cooking Basics. Course Technology, PTR

Science of Cooking Candy
http://www.exploratorium.edu/cooking/candy/index.html

National Center for Home Food Preservation
The University of Georgia
208 Hoke Smith Annex, Athens, GA, 30602-4356
www.uga.edu/nchfp

Canadian Produce Marketing Association
162 Cleopatra Drive, Ottawa, ON, K26 5X2
1-613-226-4187
www.cpma.ca

Betty Crocker's Cookbook: Everything You Need to Know to Cook Today (2000). General Mills, Inc. Minneapolis, MN.

4-H Specialists to Contact:

If you have any questions, contact the 4-H Specialist in your area:

Western Region - Yarmouth, Digby, Annapolis	584-2080
South Shore Region - Lunenburg, Queens, Shelburne	543-0616
Valley Region - Hants, Kings	679-6027
Central Region - Halifax, Cumberland, Colchester	893-6586
Eastern Region - Antigonish, Guysborough, Pictou	485-161/863-7501
Cape Breton Region - Richmond, Cape Breton, Inverness, Victoria	563-2001/ 945-2901

For more information on the requirements for completing this project at Achievement Day please refer to the 4-H Foods Project Newsletter.