Nutrition Services

Food and Nutrition Lesson Plan: Grade 1

Guide for Educators

Lessons include:
Food Transformers

Developed by AHS, Nutrition Services in consultation with the Body Image Research Lab at the University of Calgary's Werklund School of Education

Nutrition Services
Essential partners in health

Overview

This lesson addresses the Grade 1 Physical Education and Wellness Curriculum outcomes, and was developed using age-appropriate food and nutrition literacy guidance.

Students will:

- Learn how foods can be eaten directly as they are found in nature, a farm, or garden.
- Identify foods that are prepared or processed in different ways, such as cooked, canned, frozen, or dried.
- Become familiar with a variety of foods that help the body grow and develop.

Learning Outcome:

Students examine and connect a variety of foods to growth and development.

Refer to last page for the Knowledge, Understanding, Skills, and Procedures.

Teaching considerations: To support students in developing healthy eating patterns, approach food and nutrition education in a way that promotes a healthy relationship with food, recognizes that students may have varying access to food, and considers potential biases toward food and eating practices.

Teacher Background

Food can be enjoyed in many different forms. Processed foods are foods that are altered from the way they are found in nature. Some foods are eaten in the same form that they are gathered or harvested, like fresh Saskatoon berries picked from the bush or carrots from the garden. Some foods are minimally processed like bagged spinach, frozen or canned vegetables, and whole grains like brown rice, oats, and quinoa.

We process food every day when we cook and prepare meals. Cooking, canning, freezing, drying, chopping, blending, boiling, and baking are all ways of processing food. Some foods are highly processed and have more ingredients like sugar, salt, and unhealthy fats added to them.

You may have heard that we should eat less processed food. However, instead of focusing on teaching what not to eat, we encourage you to focus on all the great ways food can be prepared, how to explore food with our senses, and discuss the role it plays in our cultural and family traditions.

We need to eat a variety of foods to grow and develop. One food can't provide the body with everything that it needs. Eating a variety of foods ensures our bodies don't get too much, or too little, of a specific nutrient. Processing foods allows us to eat a variety of foods all year round, even in the winter. It also allows for foods from other parts of the world to be shipped to us so we can enjoy foods like tropical fruits that don't grow in Alberta.

All foods, whether they are processed or eaten whole as they are found in nature, give our body energy and nutrients. Sometimes during processing, nutrients may be removed (for example, peeling the skin from apples removes some of the fibre) or other ingredients may be added (for example, cinnamon is a spice that we may add to applesauce for flavour).

This lesson focuses on identifying foods that have been processed and the forms that these foods may be commonly found in a student's lunchbox or at home. Further details of food processing and how it works are covered in Grade 3.

A child's role in decision making around food is to decide if and how much to eat from the foods that have been offered and provided by their family. One factor that influences the decision to eat a food is individual sensory preferences – not just how a food tastes, but also how it smells, looks, and feels in the mouth. Exploring, naming, and identifying the sensory characteristics of foods can support children in trying new foods and communicating their decision-making process when selecting foods.

Sensory experiences can be tied to processing methods. For example, those who like their food to be cool in temperature and crunchy may choose raw carrot sticks, while others that like their food warm and soft may choose cooked carrots instead. Other factors that contribute to a child's role in decision making, such as hunger/fullness and health conditions, like allergies, will be explored in Grade 2.

Additional Sources of Background Information

Processed Food (AHS Nutrition Services)

Lesson: Food Transformers

Estimated Time

10 minutes preparation time; 40–60 minutes activity time

Required Materials

- Interactive whiteboard or projector
- Food Transformers presentation
- Food Transformers presentation (educator version with notes)
- Food Transformers worksheet (one per student)
- Crayons, coloured pencils, or markers

Instructions

1. Before class, download or print the Food Transformers presentation (educator's version with notes), along with the one Food Transformers worksheet for each student.

2. Begin the lesson with a guided discussion.
   Ask: **What is a food you enjoy?** Allow students time to respond.

   Explain: Many of the foods we love go through different processes before they reach our plates. We eat some foods in a whole form - the same form they are when harvested or picked, like fresh vegetables and fruit from the garden or a tree.

   Foods can also be processed, changed, or transformed before we eat them. For example, we can eat apples after they are picked from the tree or we can process apples by combining them with water, sugar, and cinnamon, cooking them, and then mashing into applesauce. We can do this process at home or buy applesauce from the store where a company has done the processing for us.

   Any method used to change food into a new form is an example of food processing. Changing or processing a food can affect how it looks, feels, tastes, and smells, and how we use it.

For us to grow and develop, we need to eat a variety of foods. One food can't provide the body with everything that it needs, so we want to eat many different foods. This makes sure our bodies don't get too much, or too little, of what we need. Processing foods allows us to eat a variety of foods all year round, even in the winter. It also allows for foods from other parts of the world to be shipped to us so we can enjoy foods like tropical fruits that don't grow in Alberta.

3. Use the Food Transformers presentation to explore how foods transform from their whole form to other forms, by way of cooking, canning, freezing, and drying. You may choose to implement the lesson by showing the slides on an interactive whiteboard/projector or printing and laminating the images.

   The last example provided (milk) gives students an opportunity to identify and differentiate between different types of processing. You may choose to use this as an opportunity to have students practice their spelling and letters.

4. Have students complete the Food Transformers worksheet.
   - The first page of the worksheet asks students to identify whether the food has been frozen, dried or canned by writing the word in the arrow. Students can practice their letters by copying the words provided on the sheet. There is space for students to draw their own picture of how a food is transformed.
     The correct answers in order as listed are: canned, frozen, dried.
   - The following pages are a matching exercise. Students will draw a line matching the whole food and the processed food.
     The corrects answers are:
     Plant Foods - Wheat → bread, corn → popcorn, peas in pod → peas, peaches on tree → canned peaches
     Animal Foods - Chickens → eggs, elk → sliced meat, cows → milk, fresh fish → canned fish

5. Summarize learnings with a guided discussion.
   Ask: Think of that food you enjoy. Is it found in nature that way or has it been processed? What processes were done to change it into the form you like best? How can you tell if the food has been processed or not?

Sample Answers:

- **Applesauce:** You can tell it has been processed because apples in nature are round, hard, crunchy, and have red/yellow/green/brown skin. In applesauce, the apples are soft, runny, smooth (cooked and mashed) and are usually the tan colour of the inside of the apples (peeled).
- **Pizza:** It has been processed through cooking. You can tell it has been processed because the dough is crusty, the cheese is melted and bubbly, and the food is warm. The ingredients that are used to make pizza have been processed as well.
  - The crust is made from wheat grown in a field, which was processed to make flour.
  - The cheese was made from cow's milk.
  - The pepperoni is meat processed from a cow and/or pig.
  - The vegetables have been washed and sliced.

Extension (Optional)

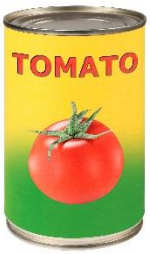
- Explore Veggies and Fruit (Health Canada) - Lesson plan where students name and group vegetables and fruits according to their colour, shape, taste, and texture. They will create their own vegetable and fruit salad using real foods or an activity sheet.
- A is For Apple (FANLit) - Lesson plan where students are exposed to a variety of apples while making apple sauce. Recipe and tasting evaluation found here.
  Note: This lesson plan could be simplified by buying and offering tester sizes of a variety of pre-made applesauce cups (e.g., unsweetened, cinnamon, apple/pear) or slices of one or two apple varieties.

Assessment

- Participation in class conversation and identification of the process that has occurred to the milk products in the Food Transformers! Slides.
- Completion of Food Transformers! worksheet: identifying a) the way in which foods have been transformed and b) matching the whole and processed foods.

Food Transformers

In the arrow, write the word that matches the picture: **frozen**, **dried**, or **canned**



Draw your own picture of how a food is transformed:

Plant Foods

With a line, match each food to the plant it comes from.

Animal Foods

With a line, match each food to the animal it comes from.

Learning Outcomes

ALL KUSPs from the Grade 1 Physical Education and Wellness curriculum are addressed in this lesson plan.

Knowledge:	Understanding:	Skills and Procedures:
• Whole foods are found in nature. • Whole foods include: – Fruit, vegetables, legumes, nuts, grains • Processed foods include whole foods that have been changed or have added ingredients. • Processed foods can be: – Cooked, canned, frozen, dried	• Food can be natural or processed.	• Differentiate between whole foods and processed foods.
• A variety of foods provide more or less of what is needed by the body. • Individuals make decisions about what to eat as part of their well-being.	• A variety of food is needed by the body in order to grow and develop. • Individuals can expand their food preferences by trying new foods.	• Examine decision making in food selection. • Identify foods that contribute to the growth and development of the body.