



recipe for change

Grains on the Brain Facilitator Notes

Objective: Students will be able to identify that many of the foods we eat (across different cultures) are made with grains. Students will actively participate in preparing a healthy snack using grains.



Recipe Category: Cooking & Tasting, Food: Outside the Box



Cooking Time: up to 60mins



Level of Difficulty: JK/SK – Grade 3



Recipe Ingredients:

Grainy Granola

- Granola Ingredients: rolled oats, raisins, honey, pumpkin, sesame, & sunflower seeds, wheat germ, oat bran, vanilla, sea salt, ginger powder, cinnamon, vegetable oil, shredded coconut
- Kitchen items: measuring cup, large bowl, measuring spoons, cookie sheet, large spoon
- Prepared granola
- Spoon (for taste testing granola)

- Small mason jars or other recycled glass jars
- Granola recipe cards
- Ribbon
- Cardboard girl's face cutout for "healthy grain meal or snack" activity
- Cards of different grain foods for "healthy grain meal or snack" activity

Grains Around the World:

- Story book: *"Evening Meals Around the World"*, by Michele Zurakowski and Jeff Yesh
- World Map (we use an oversized world map puzzle)
- Photocopies (cut outs) of different foods from the story book for placing on the map

- Jars with different grain samples: oats, rolled oat, oat groats, quinoa, wild rice, rye grain, barley, rice, flour, bulger, corn meal, (two of each variety for match up game)
- 6 boxes to form the *"Grain Train"*



Curriculum Links:

Grade	Subject Area	Ontario Curriculum Links
JK/SK	Health & Physical Activity	<p>A. Demonstrate an awareness of health and safety practices for themselves and others and a basic awareness of their own well-being.</p> <p>1. Begin to demonstrate an understanding of the effects of healthy, active living on the mind and body (e.g. whole grains).</p> <p>2. Investigate the benefits of nutritious foods and explore ways of ensuring healthy eating (e.g. healthy rice ball snack).</p> <p>3. Practise and discuss appropriate personal hygiene that promotes personal, family and community health (e.g. hand washing for food preparation).</p>
	Science & Technology	<p>D. Investigate and talk about the characteristics and functions of some common materials, and use these materials safely.</p> <p>10. Investigate various materials that have different properties (e.g. grains) by manipulating and comparing them safely in individual and small group explorations, and describe their observations.</p>
	Language	<p>A. Communicate by talking and by listening and speaking to others for a variety of purposes and in a variety of contexts.</p> <p>2. Listen and respond to others for a variety of purposes and in a variety of contexts (e.g. discussing staple grain-based meals across the world story and marking on the map).</p>
1	Health & Physical Activity	<p>Healthy Eating</p> <p>C1. Demonstrate an understanding of factors that contribute to healthy development. (O)</p> <p>C1.1 Explain why people need food to have healthy bodies. (S)</p> <p>C2. Demonstrate the ability to apply health knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well being. (O)</p> <p>C2.1 Describe how the food groups in Canada's Food Guide can be used to make healthy food choices. (S)</p>
	Science & Technology	<p>Understanding Life Systems - Needs and Characteristics of Living Things</p> <p>2. Investigate needs and characteristics of plants and animals, including</p>

		<p>humans. (O)</p> <p>2.2 Investigate and compare the basic needs of humans and other living things, including the need for air, water, food, warmth, and space, using a variety of methods and resources. (S)</p> <p>2.3 Investigate and compare the physical characteristics of a variety of plants and animals, including humans. (S)</p> <p>3. Demonstrate an understanding of the basic needs and characteristics of plants and animals, including humans. (O)</p> <p>3.1 Identify environment as the area in which something or someone exists or lives. (S)</p> <p>3.2 Identify the physical characteristics of a variety of plants and animals. (S)</p>
2	Health & Physical Activity	<p>Healthy Eating</p> <p>C2. Demonstrate the ability to apply healthy knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well-being. (O)</p> <p>C2.2 Demonstrate an understanding of how to make healthy food choices for meals and snacks, considering the factors they can and cannot control. (S)</p>
	Social Studies	<p>Heritage and Citizenship – Traditions and Celebrations</p> <ul style="list-style-type: none"> ▪ Demonstrate an understanding that Canada is a country of many cultures. (O) <ul style="list-style-type: none"> ▪ Outline traditions of various cultures that are passed down from earlier generations. (S) ▪ Identify ways in which heritage and traditions are passed on. (S) ▪ Use a variety of resources and tools to gather, process and communicate information about similarities and differences among family traditions and celebrations. (O) <ul style="list-style-type: none"> ▪ Use primary and secondary sources to locate simple information about family history and traditions. (S) ▪ Use illustrations, key words, and simple sentences to sort, classify, and record basic information about family history and traditions. (S) ▪ Make and read a variety of graphs, charts, diagrams, maps, and models to understand information about cultural or religious traditions and share it with the class. (S)
3	Health & Physical Activity	<p>Healthy Eating</p> <p>C3. Demonstrate the ability to make connections that relate to health and well-being – how their choices and behaviours affect both themselves and others, and how factors in the world around them affect their own and others’ health and well-being. (O)</p> <p>C3.1 Explain how local fresh foods and foods from different cultures(e.g., <i>berries, curries, chapattis, lychees, kale, lentils, corn, nan, wild game, fish, tourtière</i>)can be used to expand their range of healthy eating choices. (S)</p>
	Science & Technology	<p>Understanding Life Systems – Growth and Change in Plants</p> <p>1. Assess ways in which plants have an impact on society and the</p>

		<p>environment, and ways in which human activity has an impact on plants and plant habitats. (O)</p> <p>1.1 Assess ways in which plants are important to humans and other living things, taking different points of view into consideration. (S)</p> <p>3. Demonstrate an understanding that plants grow and change and have distinct characteristics.</p> <p>3.5 Describe ways in which humans from various cultures, including Aboriginal people, use plants for food, shelter, medicine and clothing. (S)</p>
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Grainy Granola

Grains on the Brain: 5-10mins

- *What is a grain?*
 - A dry, seed-like “fruit” produced by cereal grasses (taller than the grass on your lawn at home)
 - Cereal grasses include: wheat, rice, rye, oats, maize... show some pictures
- Grains have been used all over the world for thousands of years to make food.
 - Examples: wheat for bread, rice for sushi, oats for oatmeal, barley for soup, corn for popcorn
 - *Does anyone know of any other foods that could be made from grains?*
- When grains are kept as close to the way they look on farm or growing on the tall grasses, they are very healthy for us.
- Grains give us *vitamins and minerals* to keep our bodies healthy and our brains thinking, they also give us *energy* for playing and running, and special chemicals that help our hearts to pump blood around our bodies as much as we need.
- Most grain foods are good for us and can be eaten as a healthy meal or snack, but some grains are used to make foods that aren't as healthy for us with lots of extra fats and sugars which means they should only be eaten sometimes or not very often.
- Using the cardboard cutout of the girl's face, show the picture cards one at a time and decide if those foods are good for a healthy meal or snack or a “sometimes food”.
 - *Healthy*: whole wheat sandwich, rice salad, oatmeal, sushi, plain popcorn
 - *Sometimes*: cupcake, croissant, caramel popcorn, chocolate cookies

Making Granola: 20-25mins

- Select students to assist with each step of preparing the granola recipe
- Have students place uncooked granola into mason jars or plastic baggies along with attaching recipe card
- Taste test the prepared granola with students
 - See if they can identify the different ingredients used to prepare the granola i.e. identify the grain, seeds, fruit, etc.
- Facilitate some sensory exploration:
 - *Did it look round? Square? No particular shape at all?*
 - *Was it colourful? Mostly one colour? Two or three colours? Which colours?*
 - *Was it sweet? Sour? Savoury? Salty? Greasy? Spicy?*
 - *Was it squishy? Soft? Hard? Wet? Dry? Cold? Hot?*

Grains Around the World

History of Grains: 2mins

- *Humans would not have started eating grains until farming was invented – nearly 10,000 years ago! That’s a realllly long time ago! Before humans even knew how to write!*
- *Actually, before farming, humans would have found their food by hunting and gathering*
 - *What does hunting and gathering mean?*
 - *Hunting animals and gathering berries and leaves to eat. This would have required a lot of moving around for new sources of food.*
- *The first crops were most likely wheat, rye and barley (show each jar)*
- *We grow a lot of wheat in Canada*
- *In fact, Canada’s First Nation’s people would have used wheat to make their bannock bread, and still do today! Has anyone ever seen bannock wrapped around a stick and cooked over a fire? Mmmmm! (show picture)*

Story Time: 15mins

Begin by reading parts of the story: *“Evening Meals Around the World”*

- *Many evening meals contain a grain food. When different cultures eat the same grain all the time as their favourite meal, it’s called a “staple” food. Let’s find out what grains people across the world like to eat! (as you read, ask which ingredient is coming from a grain and if anyone has ever eaten that food before)*
- *Pg 6 & 7 - USA – Hamburger – Wheat bun*
 - *Ask a volunteer to place the Hamburger and Wheat picture on USA*
- *Pg 10 - China – Steamed Rice – Rice*
 - *Ask a volunteer to place the rice picture on China*

- Pg 12 & 13 – Ethiopia – Injera – Teff (made from tiny seeds from the Teff grass or “love grass”)
 - *Ask a volunteer to place the injera and teff picture on Ethiopia*
- Pg 16 & 17 – Morocco – Couscous – Semolina (Durum, a type of wheat)
 - *Ask a volunteer to place the couscous and semolina picture on Morocco*
- Pg 18 & 19 – Italy – Pizza – Wheat dough
 - *Ask a volunteer to place the pizza and wheat picture on Italy*
- Pg 20 & 21 – Mexico – Tacos/Tortillas – Corn
 - *Ask a volunteer to place the taco and corn picture on Mexico*

Are there any grains that your family eats a lot?

- There’s probably no single staple grain food in Canada because we’re so multicultural!

Grain Match-Up & Grain Train: 15mins

- Give each student a jar with a grain variety in it. Ensure that there is another student carrying the same grain in the group.
 - Be careful, if the jars are made of glass!
- *Have a good look at the grains in your jar. Are they small or big? What shape is the grain? What colour is it?*
- Students are to find their “match” by looking at each others grains and finding the one that looks the same (*shape, colour, size*).
- When they’ve found their match – students can sit back on the blanket and shake their jar like a maraca and to show that they’re done.

- Sitting on the carpet, go through the different grain varieties and how they relate to one another. There are different ways to sort the grains into *categories* or groups.
 - *How would you sort these grains into groups?* (e.g. colour, size, taste...)
- Students with that grain can show the class their jar during each discussion. Once discussed, they can place their jars into their appropriate *Grain Train* category box:
 - Oats
 - Quinoa
 - Rice
 - Wheat
 - Rye and Barley
 - Corn

- 1. Oats:** Oats grow on a tall grass and are usually turned into flakes...
- 2. Oat Groats:** are oats that have had their outer husk or "coat" removed and then chopped into 2-3 pieces.
- 3. Rolled Oats:** come from oat groats that have been flattened into flakes and are usually used for oatmeal at breakfast time or in baking cakes, breads or cookies

- 4. Flour:** another ingredient used in baking breads, cakes and cookies. Flour is usually made from different varieties of *wheat* that have been ground down (squished into tiny pieces). "Whole wheat" flour means that no part of the grain has been taken out during the grinding – this is more healthy for us.
- 5. Bulgur:** is also made from a type of wheat called, *durum* and is used to make salads, stews and soups.

- 6. Barley:** is grown from a grass and is usually used in soups and stews. When soaked in water over night, the barley increases in size by about three times which means it's ready to be used.
- 7. Rye:** A close relation of both barley and wheat and also used for baking or ground into flour. Sometimes, wheat and rye come together to make another grain called triticale.

- 8. Quinoa:** is one of the oldest and healthiest of all the grains. It actually comes from a flowering plant, rather than a grass and is related to spinach! It is used in a similar way to couscous (like in the story book).

- 9. Rice:** Very popular in Asian countries, but also across the world! Rice can come in different sizes and colours.

10. Wild Rice: isn't actually a type of rice at all... although they're close cousins! The type of wild rice grown in Canada is called "Northern Wild Rice".

11. Corn Meal: is made from ground down corn kernels (the whole grain) and used to make polenta, corn bread, and batters for the outside of corndogs and fish for frying.



Serving Suggestions:

Grainy Granola Recipe Cards: (cut out)

Grainy Granola!



Ingredients:

8 cups	rolled oats
1½ cups	wheat germ
1½ cups	oat bran
1 cup	sunflower seeds
1 cup	pumpkin seeds
½ cup	sesame seeds
1 ½ tsp	salt (preferably sea salt)
2 Tb	ground cinnamon
1 tsp	ground ginger
¾ cup	honey
½ cup	oil (sunflower, coconut, vegetable)
1 Tb	vanilla extract (optional)
2 cups	raisins or other dried fruit
1 cup	shredded coconut

Directions:

1. Preheat oven to 325 degrees F.
2. Mix dry ingredients, except raisins or other dried fruit, together in large bowl.
3. Combine honey, oil, and vanilla.
4. Mix both wet and dry ingredients together.
5. Mix well until oats are coated.
6. Spoon mixture onto ungreased cookie sheets or shallow baking dishes.
7. Bake until golden brown, about ½ hour.

“Evening Meals Around the World”

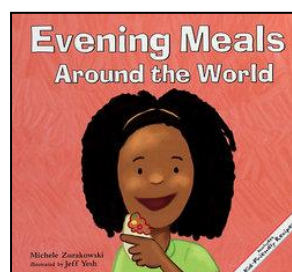
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Field to Table Schools Program

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Last Reviewed June 2012



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