4-H Foods Series
Mastering Breads

Introduction

By the time a person has graduated from high school, they will have consumed about 1500 sandwiches. Want to know how to make your sandwich more interesting? Well, you could change the middle toppings or you could modify the bread. This project will help you make a better bread!

In Discovering Breads, you learned the basics of how to bake bread. This project will perfect your skills as well as teach you some new ones. You will learn about shaping, glazing, and extra ingredients to add some intrigue to your bread. This project also features two research Builders where you can pick the topic and the recipe to make. You will find out one of the ways that bread is hurting those who eat it and how the recipe can be modified to suit them. You will pick a country and learn about its traditional bread, as well as bake it!

The final builder will see you put your skills to use by holding a bake sale or taking part in a farmer’s market. You will advertise, do the baking, and decide where your profits will go.

If you are ready to open up the oven and have that fresh bread smell waft out, let’s get all the ingredients together and mix up that

Meet Andy!

Meet Andy! Andy is an apron that has sampled delicious foods. Andy will help you bake your way through this 4-H project. Andy has important tips to keep in mind and great fun facts and trivia for you.

Do It

Dig It

Dream It

Learning is 3D!

To help you get the most out of your learning, each project meeting has the following parts:

Dream it! Plan for success
Do it! Hands on learning
Dig it! What did you learn?

Tasty Bites!

Tasty Bites! This Tasty Bites! box will appear throughout the manual. Check out the website link ideas wherever you see Tasty Bites!. These links will lead you to fun online content to help you with your 4-H project.
What Skills Will You Learn?

Each section or Skill Builder (or Builder) in this project has activities that will help your project group learn to do by doing while learning new skills and having fun!

To complete this project, you must:
- Complete the activities in each Builder OR a similar activity that focuses on the same skills, as you and your leader may plan other activities.
- Plan and complete the Showcase Challenge.
- Complete the Portfolio Page.
- Participate in your club’s Achievement (See the inside back cover for more information about 4-H Achievements).

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<td>• Understand how bread rises</td>
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<tr>
<td>• Learn how to make sweet bread</td>
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<td>• Analyze the cost of production of specialty breads</td>
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<td><strong>Skill Builder 4</strong></td>
<td>Extra Elements</td>
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<td>• Add fruit/nuts to a bread</td>
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<td>• Glaze/ice a bread</td>
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<td><strong>Activities</strong></td>
<td>Bread and Beyond</td>
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<td>Amazing Glazing</td>
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<td>Autumn Apple Bread</td>
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<td><strong>Skill Builder 5</strong></td>
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<tr>
<td>• Research the origins of an international bread</td>
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<tr>
<td>• Make an international bread</td>
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<td><strong>Activities</strong></td>
<td>History Hunt</td>
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<td>Cultural Influences</td>
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<td><strong>Skill Builder 6</strong></td>
<td>Dough from Dough</td>
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<tr>
<td>• Plan a bake sale/farmer’s market</td>
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<td>• Understand profit margins in baking</td>
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<td>Picture This</td>
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When you successfully complete your builders, you will showcase what you have learned.

<table>
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<th>Showcase &amp; Portfolio</th>
<th>Activities</th>
<th>Page</th>
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<tbody>
<tr>
<td>• Explain success in using the skills listed above</td>
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<tr>
<td>• Share their experience and knowledge</td>
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<tr>
<td>• Showcase their learning in a self-selected format</td>
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<tr>
<td><strong>Activities</strong></td>
<td>Showcase Challenge</td>
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<td></td>
<td>My Portfolio Page</td>
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Linking to Your Leader

What kind of support should members doing this Master level project have/expect? Supports for the project may include a 4-H club leader, community leaders and MAFRI GO centre/office staff. 4-H leaders, MAFRI staff and community leaders may all be acting as your “coach” or “mentor”.

Mentors are valuable people in our lives that support and encourage us and point us in the right direction. A mentor is a person that invests time, energy and knowledge into contributing to another person’s growth. The majority of mentor relationships are informal and often go undetected. Think for a moment. Can you identify someone who has contributed to your personal growth? Have you been a mentor by being a coach or role model to your peers, younger acquaintances or the adults in your life? You can likely identify mentor relationships that you have already been in but have not necessarily viewed from that perspective.

Mentors can serve a variety of roles in the lives of their mentees (the person they are mentoring). Some of these roles may include:

- **Listening** - Not talking but really listening to what the mentee has to say.
- **Role modeling** - Setting an example by behaving and accomplishing tasks appropriately as opposed to just talking about it. Leading by example is a powerful teaching tool.
- **Building self-confidence** - Offering encouragement and appropriate praise can be very empowering to those receiving it.
- **Providing challenges** - Planting the seed of inspiration to strive for and expand on a personal best through a variety of growth experiences. This is often referred to as coaching.
- **Offering perspective** - Helping the mentee to see the big picture. This is often done through helping the mentee identify their feelings and providing feedback that gives them both accurate information and encouraging them to explore the options available to them.

**Places of Mentorship**

**4-H events**

Taking part in Club, Area, Provincial, and National 4-H programs can be great opportunities to meet friends, have fun, and develop leadership skills. Check out www.4h.mb.ca to find information about upcoming events!

**Cooperative Youth Leadership Seminar**

Cooperative Youth Leadership Seminar offers a chance for Manitoba youth to learn more about the world around them, their peers and most importantly, themselves. Youth will develop leadership skills, and learn about cross cultural issues and values affecting society, global development and the co-operative movement. Co-ops and credit unions throughout the province sponsor youth to attend the seminars.

For more information please visit: http://www.manitobayouth.coop/
**4-H Food Safety**

**Food safety 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?**

The most important factor for safe handling of foods and preventing foodborne illnesses are the result of poor temperature control. 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). Low temperatures prevent food bacteria from multiplying to dangerous levels. High temperatures will kill bacteria and viruses.

**What are the four simple rules for food safety?**

1. **Clean** - Clean hands, utensils and surfaces often to keep everything clean and free of bacteria
2. **Separate** - Keeps foods separate to avoid cross contamination
3. **Cook** - Cook foods to proper temperatures
4. **Chill** - Refrigerate and freeze perishable foods promptly

**Tips for Food Safety!**

- 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.
- Members with long hair should keep it tied back.
- Cover wounds or cuts properly and use rubber gloves for 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 use once. Do not let the members use their fingers.
- 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.
- Establish a list of rules for staying safe in the kitchen. Some examples might be: no running or horseplay in the kitchen or read recipes all the way through before starting.

**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. When an individual eats that food, the immune system releases massive amounts of chemicals in order to protect the body. These chemicals trigger different allergic reactions.

**What is food intolerance?**

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.

*Identify if you have any allergies or food intolerances. If serious food allergies or intolerances are reported within your project group, ensure that these foods are avoided. All members, leaders, and parent helpers should know the treatment for these food reactions.*
Skill Builder 1: Bread Check

Andy Says....
Do you remember the three parts of the wheat kernel? How about short cuts to a fresh loaf of bread? This Builder will get you thinking about bread again. You will make a homemade loaf of whole wheat bread too!

Skills Checklist
- Understand how bread rises
- Make a loaf of whole wheat bread
- Analyze loaves of bread for improvement

Dream it!
What do you recall from the Discovering Bread Project or know about bread from daily life? Make a mind map to help activate your knowledge.

Do it!
The Power's in the Proofing
1. Mix the sugar, warm water and yeast for five minutes and stir in the flour until well mixed.
2. Put the dough into a container like a sandwich bag or a small container.
3. How long will it take for the dough to burst out of the bag or container? Can you find a way to test how much weight the dough can lift? (e.g. Have the dough in a container with various weights covering the top. Watch to see if the dough can lift the weight off the container to expand and escape.)
4. Describe your process below and then fill in the chart with your results.

<table>
<thead>
<tr>
<th>Weight of Dough</th>
<th>Time it took to burst out</th>
<th>How much I think it can lift</th>
<th>How much I made it lift</th>
</tr>
</thead>
<tbody>
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After "playing with your food", put your dough into a ball or two and bake at 375 degrees Fahrenheit (190 degrees Celsius) for about 20 minutes until brown. Cool and eat.
Whole Wheat Treat

Ingredients for one loaf:
3 cups (750 mL) whole wheat flour
1 1/2 tsp (7 mL) instant yeast
1 1/2 (7 mL) tsp salt
1 1/4 cup (310 mL) warm water
2 Tbsp (30 mL) honey
2 Tbsp (30 mL) oil

Directions:
1. Mix dry ingredients in a large bowl; make a well in the center. In a glass measure or small bowl, mix the honey and warm water; pour into the flour mixture. Stir to moisten all the flour. Mix in the oil. Mix the dough, in the bowl, with your hand until it is evenly mixed. It will be sticky.
2. Feel the dough in your hands. Is it dry or difficult to squeeze? Add more water. If it is runny or does not hold its shape, add a little more flour.
3. Turn the dough out on a lightly floured board and knead until it is smooth and elastic (about 10 minutes.) Remember that kneading is the key to developing the dough's stretchy gluten, so the dough will expand with the yeast created gas bubbles, producing a high, light loaf.
4. Shape the dough into a ball; place in a bowl (the one you mixed in is fine, no need to wash it.) Wet a cloth with warm water and wring it out. Use this to cover the bowl to keep the dough from drying out but allowing it to breathe.
5. Set the dough in a warm place, free of cooling draughts (an unheated oven with pilot light may be perfect.) Let the dough rise for about an hour. Poke the dough in the center with two fingers about 1/2 inch (1.25 cm) deep. If the depressions quickly begin to fill in, more rising is needed. If the depressions remain, the dough has risen enough.
6. Redistribute the yeast within the dough by flattening it out and briefly kneading it. You may correct slightly under kneaded dough at this time by longer, more vigorous kneading. Return the dough to its unwashed bowl, recover and let it rise until doubled again. The second rise will take about half the time of the first rise. The second rise is not absolutely necessary, but produces finer texture.
7. Deflate the dough again; divide in two (unless you're only making one loaf); shape into two balls and let them rest, covered, for about 10 minutes to relax the gluten. If the gluten is not relaxed, your attempts to shape the dough will be futile; it will spring back from any shape you try to impose. Oil your small (not mini) metal loaf pans and begin heating the oven to 350 degrees Fahrenheit (180 Celsius).
8. Shape into loaves by pressing the balls, one at a time, into flattish circles with diameters slightly longer than the length of your pans. Roll the circle up like a jelly roll, but tightly, digging your fingers in as you go. Scrunch the ends with your palms and snugly fit the dough (seam side down) into the pan. It should be touching each end of the pan but probably won't fill in to the sides.
9. Cover and let rise until a gentle poke at a corner shows you the dough is very soft and spongy, hardly springing back at all. This will take less time than the last rise.
10. Quickly put the pans in the oven and bake about 50-60 minutes. To test for doneness, remove a loaf from its pan and tap on the bottom. If it sounds hollow, it is done. If not, return it to the oven and retest at 5 minute intervals. Cool, out of pans, on racks at least until lukewarm before cutting. Cut with a sharp serrated knife using a sawing motion.

Andy Says....
Bored of basic bread? Substitute 1/2 cup (125 mL) of whole wheat flour with any of: cornmeal, oat flakes, wheat berries, flaxseed, millet, sunflower seeds, sesame seeds, poppy seeds, rye flour, spelt/kamut flour, ground buckwheat, or cooked wild rice.
Picture This

Attach a picture of you and your loaf of whole wheat bread. Fill in the blanks below the picture to share your thoughts and feelings.

In this picture: ______________________________________________________________

I want you to notice: __________________________________________________________

Dig it!

Look at each of the characteristics listed below on your bread. Circle where your bread fits.

<table>
<thead>
<tr>
<th>Shape:</th>
<th>Flowing Over</th>
<th>Even</th>
<th>Weak Top</th>
<th>Did Not Rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crust:</td>
<td>Wrinkled</td>
<td>Smooth</td>
<td>Slumped Top</td>
<td></td>
</tr>
<tr>
<td>Colour:</td>
<td>Pale</td>
<td>Golden Brown</td>
<td>Dark</td>
<td></td>
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<tr>
<td>Texture:</td>
<td>Soggy</td>
<td>Tender/Crisp</td>
<td>Heavy and Hard</td>
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<tr>
<td>Taste:</td>
<td>Yeasty</td>
<td>Sweet/Nutty</td>
<td>Off</td>
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</table>

Is there anything that you would like to improve about your bread? What do you need to adjust for next time?
_________________________________________________________________________

What’s next?

Allergies and intolerances can limit the types of bread some people can consume. In the next Builder, you will choose one of these health issues to research. You will identify an alternative bread for the health issue you choose and bake it.
Skill Builder 2: When Bread Attacks ...

Andy Says....
Sometimes eating bread can make a person sick. For most allergies or diseases, substitutions can be made to make a “bread” that people with these issues can eat. This may mean using corn flour, no yeast, or something else.

Skills Checklist
- Research a health issue associated with consumption of cereal products
- Make a bread product that people with those health issues could consume

Dream it!
Choose a health issue that makes consumption of bread difficult and fill out what you already Know about it and what you Want to Know. You will fill out the Learned column later.

<table>
<thead>
<tr>
<th>Know</th>
<th>Want to Know</th>
<th>Learned</th>
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Do it!

Sources Search
Now that you have your topic, the second stage in research is to find your sources. You may wish to do a search in your local library or on a search engine on the internet. Fill in the information below.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Date of Publication</th>
<th>Publisher</th>
<th>URL (website) / ISBN Number (Books)</th>
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</thead>
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</table>
**Information Quest**

The third step in research is to decide what information is important. Go through your resources and copy down what the health issue looks like, sounds like, and feels like. Fill in the appropriate section below.

```
| Looks Like | Sounds Like | Feels Like |
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**Andy Says....**

If a person suffers from celiac disease, about 10% of their relatives will also need to eat a gluten-free diet. Researchers are still trying to find out if celiac disease is part of the dominant or recessive gene, however, there is definitely a genetic link. Hair colour, IQ, and aggression are other genetic features that humans pass on to the next generation.

**Edible Eat**

The final stage of research is to put your new knowledge to use. Find a recipe for a type of bread that someone with your chosen disorder could eat. Attach it or write it below and bake it. Make sure to include a title, ingredients, directions, and yield.
Andy’s Fun Facts

Microwaves that have a 10% power setting can be used to proof your bread dough!

1) Measure 750 mL water into a 1L liquid measure
2) Bring to boil on 100% power
3) Place dough in microwave-safe container and cover with greased wax paper and a clean tea towel. Place next to container of hot water.
4) Microwave on 10% power for 5 minutes
5) Let rest without disturbing for 10 minutes. Test with finger poke technique.

Tasty Bites!
To learn more about food related health issues, visit:

Dig It!
Head back to the Dream It! section on page 6. Fill out the ‘Learned’ column. Did you find the answers to all the items you had under the Want to Learn column?

How are you going to share your new knowledge with the other project members, club members, family, or friends? Share your new information and include how you did this below.

What’s next?
Want a quick way to make bread more interesting? How about shaping it? Buns, braids, rolls, and twists are just a few of the options you can use.
Skill Builder 3: Buns and Braids

Andy Says....

Sweet breads (breads made with sweet ingredients) and specialty breads (breads with additions or substitutions other than white or whole wheat bread) are used for tasty treats, desserts or celebrations. Use these recipes in moderation, as Canada’s Food Guide recommends that half of the intake of grains should be whole grains.

Skills Checklist
- Learn how to make sweet bread
- Analyze the cost of production of specialty breads

Important Words
Watch out for these important words in this builder:
Specialty Bread, Sweet Bread

Dream it!

Bread comes in more shapes than the typical loaf. What other shapes can you find bread products in? Draw and label as many as you can think of below.

Do it!

Bun Fun

Ingredients:
- 1 cup (250 mL) milk
- 1/3 cup (75 mL) white sugar
- 1/3 cup (75 mL) butter
- 1 tbsp (15 mL) active dry yeast
- 4 cups (1 L) all-purpose flour
- 1/2 tsp (2 mL) salt
- 2 eggs
- 2 tbsp (30 mL) vegetable oil

Directions:
1. In a small saucepan over medium heat, combine the milk, sugar and butter. Heat until warm to the touch then remove from heat and stir in the yeast. Let stand until foamy, about 10 minutes.
2. In a large bowl, stir together the flour and salt. Mix in the eggs, oil and the yeast mixture. Mix until dough pulls away from the sides of the bowl. Turn dough out onto a floured surface and continue to knead until the dough is smooth and elastic, about 10 minutes. Grease a large bowl with 1 tablespoon of oil. Place the dough into the bowl and turn once to coat. Cover and let stand in a warm place until double in size, about 1 hour.
3. Use remaining oil to grease a cookie sheet or 9x13 inch (23 x 33 cm) pan. For plain rolls, punch down dough and divide into 12 equal pieces. Roll the pieces into balls and place them into the greased pan side by side. Let dough rise for 20 to 25 minutes, or until almost double. Preheat oven to 375 degrees F (190 degrees C).
4. Bake for 20 to 25 minutes in the preheated oven, until rolls are golden brown.

Yield: 1 dozen buns
Cinnamon Whirl

Ingredients:
- Sweet bread dough (from the ‘fun bun’ activity)
- 1/2 cup (125 mL) brown sugar
- 4 tbsp (60 mL) cinnamon
- 1/2 cup (125 mL) melted margarine

Directions:
1. Roll sweet bread dough into a rectangle, spread with melted margarine, sprinkle with sugar and cinnamon.
2. Roll up and pinch seam to close (sometimes it helps to dip your fingers in water as you pinch the seam). At this point you can decide whether to make a ring or to make rolls.

For a Cinnamon Ring:
Take the rolled dough and form it into a circle. Pinch the ends together and placed on a baking sheet (greased or covered with parchment paper). Cut slits about half way through the dough about 1 inch (2.5 cm) apart all the way around the ring.

For Cinnamon Rolls:
Cut roll into 1 inch (2.5 cm) pieces using a serrated knife. In a 9 x 13 inch (22 x 33 cm) pan, mix together the following: ½ cup (125 mL) margarine (melted), ½ cup (125 mL) brown sugar, 2 tablespoons (30 mL) Karo white syrup. Coat the bottom of the pan with this mixture. Set the cinnamon rolls in the pan (don’t crowd them). Let rise for 30 minutes or so. Bake at 350 degrees Fahrenheit (180 degrees Celsius) until done, about 20 to 25 minutes. This makes a cinnamon roll with a caramelized bottom. If you don’t want the sweet bottom, just place rolls in a greased pan to rise and bake.

Afraid of the Braid?

Preparing dough:
1. Mix up bread dough following recipe instructions (you may use the sweet bread from the ‘fun bun’ activity or a regular bread recipe).
2. Knead the dough and let it rise in a warm place till it doubles in size.
3. Punch down.
4. For each braid, divide the dough into thirds and shape each portion into a ball.
5. Cover and let rise 10 minutes so dough will be easier to handle.
6. On a lightly floured surface roll each ball into an evenly thick rope about 16” (40 cm) long.
7. Line up the three ropes, 1 inch (2.5 cm) apart, on a greased baking sheet.

Braiding the bread:
1. Begin in the middle of the ropes and work toward the ends. Working from the middle is easier and helps avoid stretching the dough, which results in an uneven loaf.
2. Braid the ropes loosely so the dough has room to expand without cracking or losing its shape.
3. Gently straighten the ropes on the baking sheet.
4. Pinch the ends of the ropes together and tuck the sealed portion under the braid so the ropes, won’t come apart during baking.
5. Cover the braid and let rise in a warm place till almost double.
6. For a crisp, shiny crust, brush the braid with a mixture of 1 egg yolk and 1 tbsp (15 mL) milk.
7. If desired, sprinkle with a little sugar, sesame seed, or poppy seed atop each braid.
8. Bake as directed in the recipe.
When selling specialty breads, do you think that the extra profit outweighs the extra cost? Choose one type of specialty bread to compare to regular bread below.

Calculate the differences here:

<table>
<thead>
<tr>
<th></th>
<th>Regular Bread</th>
<th>Specialty Bread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale Price:</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Cost of Ingredients:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Equipment:</td>
<td></td>
<td></td>
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<tr>
<td>Electricity Cost:</td>
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<tr>
<td>Your Pay (base on time):</td>
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<td></td>
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<tr>
<td>Total Cost</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Sale Price - Total Cost =</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

Which category has a higher rate of profit? Why do you think that is? Which would you rather bake?

_________________________________________________________________________

_________________________________________________________________________

---

**Andy's Fun Facts**

To make your braided bread even more special, you can colour each strand. One way to do this is to add different flours to each strand.

- On the first strand, mix in 80 to 125 mL (1/3 to 1/2 cup) white flour.
- On the second, mix in 80 to 125 mL (1/3 to 1/2 cup) rye flour mixed with 10 mL (2 teaspoons) cocoa powder.
- On the final strand, mix in 80 to 125 mL (1/3 to 1/2 cup) whole wheat flour.

Or you could use your imagination and make up your own recipe!

---

**What's next?**

Skill Builder 4 examines the extras that one can put in or on your bread. This includes fruits, nuts, seeds, and vegetables. On top of the bread, icing or glazes can make your sweet bread even sweeter! Bring one of your favourite bread cookbooks.
Skill Builder 4: Extra Elements

Dream it!

Pull out one of your favourite cookbooks and head to the bread section. What extras can you find to add to bread? List them below or make a word web.

Discuss with your leader which additions you want to try.

Do it!

Bread and Beyond

Try substituting ½ cup (125 mL) of the flour in the basic whole wheat recipe on page 4 with any combination of other grains or seeds. You might want to soak the grains in water ahead of time, (for several hours or overnight) and then drain off the excess water.

You may also want to cover the top of the loaf or line the pan you are using with some interesting grains. Sunflower seeds, sesame seeds and rolled grains work well for this. To get seeds to stick to the loaf, put some seeds on your work surface and just before you put the formed loaf into the pan, rub some water on the top of the loaf and then roll it in the seed/rolled grain that you want to have on top.

To glaze your loaf of bread, brush the top with 1 whole egg for a shiny, dark finish or 5 mL (1 tsp) cornstarch mixed with 60 mL (1/4 c.) hot water for a dull finish with a crisp crunch. If using the latter, brush halfway through baking as well.

What did you choose to do? _____________________________________________

Tasty Bites!

If you want to use an online cookbook, try www.cookingbread.com or allrecipes.com/recipes/Bread/Main.aspx
Autumn Apple Bread

Ingredients:
- 3 cups (375 g) all-purpose flour
- 1.5 tsp (7.5 mL) salt
- 1.5 tsp (7.5 mL) baking powder
- 3 tbsp (45 mL) poppy seeds
- 2 tsp (10 mL) butter
- 1 1/3 cups (315 mL) vegetable oil

For Filling:
- 2 tsp (10 mL) cinnamon

Directions:
1. Combine first 5 ingredients in a mixing bowl. In separate bowl, combine milk, water and butter.
2. Stir until butter melts. Beat in egg.
3. Add liquid ingredients to dry ingredients. Beat with wooden spoon or electric mixer until smooth and elastic. Add half of remaining flour. Beat well.
4. Stir in enough remaining flour gradually, to make a soft, non-sticky dough.
5. Knead dough on lightly floured board, adding more flour as necessary to make a soft dough.
6. Continue kneading until dough is smooth, elastic and no longer sticky (about 5 minutes).
7. Place in lightly greased bowl. Turn dough to grease top. Cover with greased waxed paper and tea towel. Let rise in warm place (75° - 85°F / 24° - 29°C) until doubled (60-75 minutes).
8. Punch down. Turn out onto lightly floured board. In small bowl, combine apples and cinnamon for filling. Knead apple mixture into the dough until evenly distributed.
9. Shape into a loaf. Place seam side down in greased 9" (22.86 cm) loaf pan. Cover with tea towel.
10. Let rise in warm place until dough rises 1" (2.5 cm) above top of pan (60-75 minutes).
11. Bake at 375°F (190°C) on lower oven rack for 25-30 minutes. Cover top of loaf with foil during last 10 minutes if becoming too brown. Remove from pan immediately. Cool on wire rack.

Yield: 1 loaf

Amazing Glazing - Poppy Seed Loaf

Ingredients:
- 3 cups (375 g) all-purpose flour
- 1.5 tsp (7.5 mL) salt
- 1.5 tsp (7.5 mL) baking powder
- 3 tbsp (45 mL) poppy seeds
- 2 tsp (10 mL) butter
- 1 1/3 cups (315 mL) vegetable oil

Directions:
1. Preheat oven to 350 degrees F (175 degrees C). Grease bottoms of two 9” (22.86 cm) loaf pans.
2. Mix together flour, salt, baking powder, poppy seeds, 1.5 tsp (7.5 mL) butter, oil, eggs, milk, sugar, 1.5 tsp (7.5 mL) vanilla, and 1.5 tsp (7.5 mL) almond flavoring. Pour into prepared pans.
3. Bake at 350 degrees F (175 degrees C) for one hour. Cool 5 minutes. Poke holes in top of loaves and pour glaze over.
4. To make glaze: Mix orange juice, 1/2 tsp (2.5 mL) butter flavoring, 1/2 tsp (2.5 mL) almond flavoring, and 1 teaspoon (5 mL) vanilla. Add enough confectioners’ sugar to make glaze.

Yield: 2 loaves
Dig it!
What type of bread did you like best? Bread with additions or plain? Why?
_____________________________________
_____________________________________
_____________________________________

Judge your first loaf of bread from this Builder according to the score card on the left. As long as the glaze improves the appearance of the loaf, it is acceptable. The ideal flavor of bread should not be sour nor musty, but rather a sweet, nutty flavour that shows that the correct amount of salt and sugar were added in the mixing.

What score did you give your bread? ____/100 Pts

Think about this builder and the activities you did...
- Review the skills checklist on page 14.
- What skills have you developed?
- Do you need more practice?

Appearance 15 Points
- 500 g (1-2 lbs) loaf
- well shaped
- well blended seam on bottom
- golden brown even colour

Crust 15 Points
- 2-3 mm (1/8") deep
- crisp, free from cracks

Internal Appearance 30 Points
- even, creamy, crumb colour
- small, evenly distributed cells
- springy elasticity
- circular streaks are acceptable
- normal moisture
- no heavy layer near bottom
- no large holes

Flavour and Odour 40 Points
- sweet
- free from yeasty smell

From Farming History...
The Red River settlers brought winter and spring wheat seeds with them. Many of these seeds failed in Manitoba’s climate and several settlers gave up. However, a Scottish man sent some Baltic Wheat to an Ontario farmer who passed it on west to Manitoba. This wheat grew so well in the Red River Valley it became known as Red Fife.

Andy’s Fun Facts!
You can add fruit to your bread, or you can grow a breadfruit. Breadfruit tree’s are flowering trees that grow on the western Pacific Islands. Each tree produces around 200 fruits per season which look like a grapefruit with a rough surface. The fruit is rich in starch and when cooked, tastes like a potato or freshly baked bread. You might want to try out one of these fruits!

What’s next?
Pick any country in the world. Can you name the bread they make there? The next builder will let you pick one country and learn about it’s traditional bread. You might choose to head to Mexico for the tortilla, Denmark for rusk, or Sweden for lefse.
Skill Builder 5: Across the Globe

Andy Says....
Pita, tortilla, bagel, pizza, scone, chapati, naan, croissant, lefse, rusk, roti, crepes, ciabatta, lavash, matzo, sangak, sanchuisanda, blini, focaccia, pfannkuchen, piadine, and waffles are just some of the breads found around this Earth. Where will you go?

Dream it!

What types of international breads have you eaten? Name them and where you think they come from.

<table>
<thead>
<tr>
<th>Name of Bread</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Bread</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do it!

History Hunt

The country I choose is ___________________.

Their traditional bread is called ________________.

Describe the bread:

Give a history of the bread:

Any interesting facts?

Skills Checklist

- Research the origins of an international bread
- Make an international bread

Important Words

What words are important to you in this builder:

________________________________
________________________________

Name of Bread Country of Origin

Name of Bread Country of Origin
Why do you think the bread of your chosen country turned out the way it did? (Reflect on the country of origin, the culture, the land, the vegetation, climate etc.)

________________________________________
________________________________________
________________________________________

Cultural Influences

Recipes Round the World

Find a recipe for your chosen bread and attach it or include it below. Indicate the title, ingredients, directions, and the yield. Bake it and see how it tastes.

Bread Storage

- Do not cut into a loaf until it has been out of the oven for at least 20 minutes, and wait 1 hour if possible.
- Most breads stored at room temperature will last from 3 - 5 days. Refrigeration and freezing dry out bread, but the freezer will keep bread for up to 3 months. Once thawed, this bread goes stale quickly, so eat it ASAP!

Andy’s Fun Facts!

Flat breads are the most popular kind of bread around the world. They include crepes, pizza, waffles, tortillas, pitas, naan, pancakes, and focaccia. In China, green onion pancakes are a popular choice! These are different from our pancakes in that they use a dough, not a batter. There is even a myth that green onion pancakes were the predecessor of pizza and Marco Polo took the idea to the Mediterranean.
What’s Next?

The final Skill Builder will help you make some money. You will plan a bake sale or take part in a farmer’s market to sell what your new skills can make!

Tasty Bites!

Try these websites for more information:
www.breadaroundtheworld.com,
wbc.agr.mt.gov/Consumers/Teachers_students/BreadAroundTheWorld.pdf

Dig it!

Go back to page 15 and fill in the Important Words with what words have been important for you this Builder. Insert a picture below of you and your International Bread. What could you have in the background to indicate what country it comes from?

Attach a picture of you with your international bread.

In this picture: ______________________________________________________________

I want you to notice: _________________________________________________________

Now that you have explored bread from another culture, imagine what the "Canadian Bread” would be. Describe what it would be like and why.

What’s Next?

The final Skill Builder will help you make some money. You will plan a bake sale or take part in a farmer’s market to sell what your new skills can make!
Skill Builder 6: Dough from Dough

Andy Says....

Need some extra money? If you enjoy baking, selling your goods can be a fun way to make some cash. This Builder will help you organize a bake sale or participate in a local Farmer’s Market.

Skills Checklist
- Plan a bake sale/farmer’s market
- Understand profit margins in baking

Important Words
Look out for these important words in this builder: Bake

Dream It!

Picture your ideal venue for selling your bread products. Where is it, what do you sell, where do your profits go? Fill in the boxes below to help begin the planning.

<table>
<thead>
<tr>
<th>Who’s Helping &amp; How:</th>
<th>Plan for Profits:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Time:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Location:</td>
</tr>
</tbody>
</table>

Transportation:

Bake Sale or Farmer’s Market?

How I’m Making The Bread:

Menu: | Price: | Shopping List: |

Do It!

Propose a Plan

Share your plan with your leader or a mentor who is helping you with this project. What do they think? Are there any changes they recommend?

Andy says...

To maximize profit, you need to consider both customer demand and price. It is generally not a good idea to refreeze baking so you will want to sell as much of your merchandise as possible, yet at the highest price possible. Farmer’s Markets will set prices to keep competitors the same, but at a Bake Sale you decide the value.
Promotion

Now that you have a plan, you need to start advertising to make sure customers come. Place an ad in the local newspaper or online. You can create posters to put up around town or pass out business cards with the information about your sale on it. You may also want to personally contact people by going door to door or giving them a phone call. Whatever you decide to do, attach a copy of your plan and any handouts you used.

Tasty Bites!

Foodborne illnesses are a huge health concern so there are many rules to keep farmer’s market/bake sale consumers safe. Read them at: www.gov.mb.ca/health/publichealth/environmentalhealth/protection/food.html or www.manitobafarmersmarkets.ca/

Andy Says....

There are many things to keep in mind when selling food to the public. Check to make sure you are in accordance with those below. To view the full document, www.gov.mb.ca/health/publichealth/environmentalhealth/protection/food.html

- Labels must include:
  - Source (producer name and phone number)
  - Common name of food
  - Ingredients
  - Date the food was prepared

- Containers of food shall be stored a minimum of 15cm (6 inches) off the ground (floor).
- Packaged food shall not be stored in direct contact with water or undrained ice.
- Frozen foods shall be kept frozen (-18°C/0°F or below).
- Non-perishable food samples must be stored in rigid, covered containers until serving.
- All samples must be pre-cut away from the sales unit.
- All samples of potentially hazardous foods must be prepared in a licensed kitchen facility.
- Samples should be of adequate size and spaced to minimize customer handling.
- All samples must be held and dispensed under clean and sanitary conditions. (I.e. toothpicks provided for sampling).
- All vendors giving free samples MUST provide a waste container in a prominent place and labelled for use by the public.
- Keep potentially hazardous food cold at 41°F (5°C) or colder – or hot 140°F (60°C) or hotter.
- Avoid touching food with bare hands, use disposable gloves, tongs, scoops or clean napkins.
- Food handlers shall wear clean full length aprons or smocks and hair restraints.
Picture This

Bake up a storm and have your bake sale/farmer’s market. Make sure to get a photo of yourself with all your fare before it is all gone. Attach a copy below and fill in the blanks.

Paste a picture of you and all your baking at the bake sale/farmer’s market.

In this picture: ______________________________________________________________
I want you to notice: __________________________________________________________

Dig it!

Which product made the most money? The least?

How much profit did you make?

What customer feedback did you receive?

What did you think about the bake sale/farmer’s market experience? Would you do it again?

What’s next?

Congratulations on baking your way through six Builders. You have mastered baking basic breads as well as more complicated, fancy bread products. If you keep practicing your baking skills, you will be an expert in no time. You still have your showcase challenge and portfolio page to complete on the next four pages.
Now that you have finished this project, it is time to think about how you will share your experiences and knowledge with others. You may put your new skills to work by helping at a community event or at your club Achievement or teaching others about your topic. The goal of the Showcase Challenge is to help highlight your new skills and help you understand how you can use them. It can be an opportunity to receive feedback from others on your project. So go back through your manual and find some highlights of your learning (what you are proud of) and think about how you will “showcase” it.

**Showcase Challenge**

*Bringing it all together!

Dream It!

**Here are some Showcase Challenge Suggestions:**

- Demonstrate something you made or learned about
- Make a poster or display
- Act out a play
- Make a video or slideshow
- Teach a class
- Organize a bake sale
- Use your new skills to help with the Club Achievement plans
- Or come up with your own idea. It is up to you and your leader!

**My Showcase Challenge Plan**

My showcase idea: __________________________________________________________
________________________________________________________________________
What materials and resources do I need? _________________________________________
________________________________________________________________________
Who do I need to help me? ___________________________________________________
________________________________________________________________________
When do I need to have things done by? _________________________________________
________________________________________________________________________
Do It!

Insert or attach your finished product or a photo of you sharing your skills in your Showcase Challenge.

Dig It!

Now that you have showcased your project skills;

- How did your Showcase Challenge go?

- What would you do differently next time?

- How will you use your new skills in the future? (in different situations?)
### Mastering Breads Project Skills Chart

To be completed by the leader and the member based on observations and conversations throughout the project.

<table>
<thead>
<tr>
<th>Skill Builder</th>
<th>Members will be able to…</th>
<th>We know this because…</th>
</tr>
</thead>
</table>
| 1             | • Understand how bread rises  
• Make a loaf of whole wheat bread  
• Analyze loaves of bread for improvement | Identify activities completed and record observations and information from discussions about activities. |
| 2             | • Research a health issue associated with consumption of cereal products  
• Make a bread product that people with those health issues could consume |
| 3             | • Learn how to make sweet bread  
• Analyze the cost production of specialty breads |
| 4             | • Add fruit/nuts to a bread  
• Glaze/ice a bread |
| 5             | • Research the origins of an international bread  
• Make an international bread |
| 6             | • Plan a bake sale/farmer's market  
• Understand profit margins in baking |

**Showcase Challenge**

- Explain success in using the skills listed above.
- Share their experience and knowledge
- Showcase their learning in a self-selected format

Additional Comments/Activities:

---

### Leader Point of Praise!

I am most impressed by…

I acknowledge that the member has completed the 4-H project requirements.

Leader’s Signature: _______________________________
Above and Beyond!
In addition to project skills, 4-H also increases skills in meeting management, communications, leadership, community involvement through participation in club, area, or provincial 4-H events or activities. List below any activities you participated in this year in 4-H.
(Some examples include Executive Positions Held, Workshops, Communication, Community Service, Rally, Bonspiels, Conferences, Judging, Camps, Trips, Awards, Representation to Area or Provincial Councils, etc)

_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________
_____________________________________       _______________________________________

**Feel Free to add additional pages that include awards, certificates, new clippings, photos or other items that describe your 4-H involvement.

Member Point of Pride!

What I learned…

What I need to improve on…

What I want others to notice…

Member’s Signature: _______________________________

Point of Praise! Another’s perspective on your achievements in 4-H.
(community professionals, MAFRI staff, 4-H club head leaders, 4-H Ambassadors, friends of 4-H)

I am most impressed by…

I believe that you have learned…

In the future I encourage you to…

Signature: _______________________________
4-H Achievement

4-H Achievement is... a 4-H club celebration when members have completed their projects. Achievements are planned by the club to give recognition to members and leaders for their accomplishments in their 4-H projects and club activities.

A 4-H Achievement can take many different formats: from choosing a theme, to member project displays, to members using their new skills for the event (entertainment, food, decorating, photographer, etc.), to members presenting their project to the whole group, the options are endless and open to the creativity of the members and leaders in each club!

Clubs may also plan their Achievement to promote 4-H to the community or to recognize sponsors and others who have helped the club.

Members and leaders - be sure to check your project books for the project completion requirements, so you will be ready for your club’s Achievement celebration!

If you have any questions, comments or suggestions for this or other 4-H projects contact:

Manitoba 4-H Projects
Manitoba Agriculture Food and Rural Initiatives
1129 Queens Avenue
Brandon, MB R7A 1L9

Email: 4h@gov.mb.ca
Phone: 204-726-6613
Fax: 204-726-6260

For more information about 4-H and the many 4-H opportunities available please visit

http://www.gov.mb.ca/agriculture/4-h/
What is 4-H?

4-H is an international youth organization involving more than 7 million members in 80 countries around the world.

In Canada, 4-H began in 1913 in Roland, Manitoba as a community-based organization dedicated to growth and development of rural youth. Today’s 4-H program reaches both farm and non-farm youth across Canada. The motto of “Learn to Do by Doing” is embodied in the program, as 4-H focuses on skill development as well as personal development of life skills such as communications, leadership and citizenship.

4-H Motto

“Learn To Do by Doing”

4-H Pledge

I pledge,
My HEAD to clearer thinking,
My HEART to greater loyalty,
My HANDS to greater service,
My HEALTH to better living,
For my club, my community, and my country.

4-H Quality Equation Principles

Quality People
- Promote responsibility, respect, trust, honesty, fairness, sportsmanship, citizenship, teamwork and caring.

Quality Experiences
- Provide members with personal development and skill development experiences.

Quality Projects
- Promote and value quality effort.
- Promote high quality, safe food production within industry standards.

Manitoba 4-H project material is developed by
Manitoba Agriculture, Food and Rural Initiatives (MAFRI)