Welcome 4-H Leaders!
Welcome to the “Mastering Breads” project. This project contains lots of information, fun facts, and activities to help your members learn. This project focuses on perfecting the skills the members learned in Discovering Breads. This project also looks at problems people have digesting bread, bread around the world, and ways to make bread more interesting. The last builder will help members make money via baking bread either through a bake sale or at a farmer’s market. This guide provides you with project meeting plans (Skill Builders) that include a skills list, background information, activity suggestions, and ways to know if your members have learned the skills identified. In short, all the information and tools necessary to make this project a rewarding one for you and your members.

The Leader Guide is written with the expectation that the project leader(s) will have a working knowledge about baking homemade bread. If not, you may need to do some pre-work / research on the activities, or recruit assistance for certain sections. Be sure to try out activities, demonstrations or hands on work ahead of time to ensure you have an understanding of each Skill Builder - this also allows for any adjustments should an activity not work for you or if any equipment or supplies are unavailable.

The 3D’s of Learning - Each Skill Builder has three sections of learning called “Dream it!”,” Do it!” and “Dig it!”. Below is a description of each.

**Dream it! Plan for Success** - this gives members a chance to help plan their activities. A skills checklist, background information, important words, and activating questions are included in the Member Manual so they will be able to think about the topic and activity and decide how they will approach it. The Leader Guide contains in depth background information on the topics, material lists, suggestions, and time requirements for activities. Activating, acquiring, and applying questions are incorporated to engage members’ thinking through each step of the learning process.

**Do it! Hands on learning** - this is where members are engaged in the activity planned / discussed in the Dream it! Section. Here members are doing the activities and leaders are observing, recording, and providing feedback on how well they are doing. Allow as much individual practice as required; you are assessing the progress and understanding of individual members.

**Dig it! What did you learn?** - this simply means that members and leaders need to ‘dig into their learning’. For the learning cycle to be completed, both need to reflect on how things went and how well they did. For members, this involves self-assessment, giving feedback, creating meaning from their experiences, and thinking about what they would do differently next time. Once this is done they will be in a good position to apply what they have learned to the next experience.

The sequence of project meetings and specific skill building outcomes for members in this project are on the chart on the following page.
What Skills Will The Member Learn?

Each section, 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, members must:
- Complete the activities in each Builder OR a similar activity that focuses on the same skills as you and your members 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).

<table>
<thead>
<tr>
<th>Skill Builder</th>
<th>Members will be able to...</th>
<th>Activities</th>
<th>Page</th>
</tr>
</thead>
</table>
| 1 Bread Check | • Understand how bread rises  
  • Make a loaf of whole wheat bread  
  • Analyze loaves of bread for improvement | • The Power’s in the Proofing  
  • Whole Wheat Treat  
  • Picture This | 16 17 18 |
| 2 When Bread Attacks... | • Research a health issue associated with consumption of cereal products  
  • Make a bread product that people with those health issues could consume | • Sources Search  
  • Information Quest  
  • Edible Eat | 22 22 22 |
| 3 Buns and Braids | • Learn how to make sweet bread  
  • Analyze the cost of production of specialty breads | • Bun Fun  
  • Cinnamon Whirl  
  • Afraid of the Braid? | 26 26 27 |
| 4 Extra Elements | • Add fruit/nuts to a bread  
  • Glaze/ice a bread | • Bread and Beyond  
  • Amazing Glazing  
  • Autumn Apple Bread | 31 31 32 |
| 5 Across the Globe | • Research the origins of an international bread  
  • Make an international bread | • History Hunt  
  • Cultural Influences  
  • Recipes Round The World | 37 37 37 |
| 6 Dough from Dough | • Plan a bake sale/farmer’s market  
  • Understand profit margins in baking | • Propose a Plan  
  • Promotion  
  • Picture This | 41 41 41 |

When you successfully complete your builders, you will showcase what you have learned.

| Showcase & Portfolio | Explain success in using the skills listed above  
  Share their experience and knowledge  
  Showcase their learning in a self-selected format | Showcase Challenge  
  My Portfolio Page | 44 45 |
4-H Project Series Skill Development Levels

Each project topic series contains three levels of skill development: explore, discover, and master.

**Explore** - each project series has one project outlining the fundamentals. All members will be expected to complete the Explore level project before moving into the Builder level of projects. It introduces the basic skills and terms needed by members for subsequent projects in that series.

**Discover** - each project series has several project options and members are encouraged to take as many as they would like. At this level, members practice topic specific techniques and gain theme related skills through specialized builders.

**Master** - multiple project options encourage members to specialize in a topic. They may branch out and take advantage of community options such as cooking for a canteen or participating in a food drive. The Leader’s role is look for opportunities for their members to have more authentic experiences by: working with other mentors, partnering with outside agencies, participating in exchanges, entering competitions, etc. Projects at this level may include the “Partner-a-Project” whereby pre-approved courses will allow members to advance their skills, while applying their learning to the 4-H program.

Showcase Challenge and My Portfolio Page

At the end of the members’ section are the “Showcase Challenge” and “My Portfolio Page”. The Showcase Challenge page gets members to think about their accomplishments and explain or demonstrate how they were successful. There are a number of suggestions along with planning information to help them decide how they will best “showcase” their learning to friends, family, community members and/or fellow 4-H members.

Record keeping is an important part of every 4-H project. “My Portfolio Page” is a graphic organizer used to keep track of members’ 4-H experiences. As each member learns skills, the evidence of learning (through participation and completion of the various activities) is recorded on the page. When the Portfolio Page has been completed and confirmed by the leader, then it becomes a record of the member’s completion of the project and participation in other 4-H activities beyond the project.

**4-H leader assessment** of members will happen throughout the project as you assess the progress and understanding of individual members. You need to observe the members doing the skill and record what you see and hear. Your feedback should be positive and descriptive (not just “well done”). Share that feedback with members frequently so they can put your suggestions into action. How you choose to observe and record is up to you. Some methods are to create checklists, videos and notes while encouraging discussions, peer observations and questions. Recognize that members may improve over the course of a builder and that records should be updated to reflect when they demonstrated their best learning. You are discussing how well members are meeting the skills checklists that are at the beginning of each of the project books, in each Builder and on the Portfolio Page.

Projects promote technical, communication, meeting management, and leadership skills, as well as community involvement and real-world experiences. In addition to the specific skills members are to learn in each builder, the following general learning goals for members are important: Following instructions - Working with others - Using supplies safely - Using the key words - Improving with practice - Respecting timelines.
4-H LEADER TIPS FOR SUCCESS!

♦ To complete, members must complete all the activities referred to on the “Project Completion Requirements” page OR alternate idea for an activity that would teach the same skill or an age appropriate variation. If activity substitutions are used, be sure to have the member make note in their manuals.

♦ Depending on time available at each meeting, group size and abilities of group members, you may wish to break the Builders into more than one project meeting.

♦ The internet has lots of interesting websites and educational activities. You may choose to use a search engine to explore the options available. We do not endorse any website or the safety or functionality of any products they may sell. Information/products will be used at your own discretion.

♦ Safety is a number one priority. Care has been taken to create safe, age appropriate activities throughout this manual. As leaders, it is important for you to emphasize safety rules and manage or adapt activities in a manner that will safely match your members abilities. Ensure members have a good understanding of safe working and handling practices when using tools, that they use the appropriate safety equipment when necessary, and that appropriate supervision is provided. A quality experience needs to be a safe experience.

♦ The multiple intelligences theory teaches us that people learn in at least 8 different ways. All individuals will be stronger in some ways of “intelligences” and weaker in others. It follows that the more ways we teach, the more members we will reach. Throughout this project, you will find a mix of writing, reading, hands-on work, artwork, self-evaluation, group discussion and performance. Teaching projects using a broad blend will help increase the learning potential of all members.

♦ Projects are designed to teach many skills – such as how to make flour. However, the 4-H member is always more important than the subject matter. Stress cooperation in the activities where possible to develop teamwork and cooperation skills – valuable skills that will assist them in a number of settings. Ensure the work is completed in a manner that members feel good about themselves and their efforts. This can be done by assigning appropriate tasks or roles based on member’s individual abilities. Modelling and expecting supportive behaviour - that is, no “put-downs” – amongst members, or by other adults, also contributes to a positive experience. Remember, you are teaching the student not the subject.

♦ There will be opportunity for experimentation and applying skills that members have learnt throughout this project. Experimenting can be frustrating, but learning through trial and error is an important life skill. Explain to members that it is alright to either go onto the next builder or do the builder again if they need the practice. Help the members work through their challenges until they are satisfied with the quality of their work. Creating inventive 4-H members will be very rewarding.

♦ Celebrating success is an important but sometimes overlooked part of our lives. We encourage you to use the final section to empower the members by celebrating all they have learned in a fun manner. Anything that you do to add to the spirit of fun and the sense of accomplishment of each member will likely be remembered as the high-light of their 4-H year.

Have fun and thanks for your belief in young people!
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. Being a 4-H leader, especially to older 4-H youth, provides a formal opportunity to have a mentor relationship.

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 how you behave and what you accomplish as opposed to just talking about it. Leading by example is a powerful teacher.
- 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 your 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.

Mentoring can be such a positive growth experience for both the mentor and the mentee. Challenge yourself to learn and practice mentoring skills in your relationships - whether those relationships are formal or informal. You can make a real difference in someone’s life.

Let’s take a closer look at some of the roles of a mentor:

**Listening Skills**

Active listening is such a valuable life skill but we are rarely taught how to do it well. Here are some basic tips to improving your listening skills:

- Stop talking. The fewer words that you say the more words the other person can say.
- Show that you are listening. Sit/stand where you can make eye contact with the speaker. Lean forward, nod your head, remain alert, and smile – anything to show that you are hearing and thus reacting to the information.
- Listen for ideas rather than facts. Tune into the person’s feelings as well as the content of the message. Body language and tone of voice can often reveal more than the actual words do.
- Provide feedback. To ensure what you heard is what the speaker meant, summarize back to the speaker (in your own words) what you feel were the key points that they made. This provides the speaker the opportunity to correct you if you have not clearly understood what they meant.
- Remove distractions. Find a quiet place to talk. Don’t be mentally jumping ahead rehearsing what you should say next.
- Don’t judge. You may not agree with what the speaker is saying but accept it at face value. If you accept the speaker’s thoughts and feelings without judgment, they will be more open to hearing other points of view after they have had their case heard without judgments.
Self-confidence is a powerful motivator and we should strive to build positive self-confidence in others and ourselves. What can you do to increase another’s self-confidence? Some tips include:

- **Believe in the person.** Say and show that you think they can accomplish their goals. Introducing them to key people and being enthusiastic about their abilities can be very encouraging to the mentee.
- **Empower them to make choices.** Advice is very easy to give but suggesting choices the mentee can consider gives the person a sense of control and power over their life.
- **Identify skills and growth opportunities.** A mentor can help mentees identify their current skills and skills or knowledge they may need to acquire to accomplish their goals. Encouraging a person to try new skills is an important role of a mentor.

**Providing Challenges & Effective Coaching**

Five basic steps to effective coaching are:

1. **Tell** - explain how to do the task
2. **Show** - demonstrate how the task is done
3. **Do** - provide an opportunity for the learner to do the task
4. **Observe** - watch how the task is being done
5. **Praise and/or redirect** - compliment on the correctly done performances and suggest area of improvement

Some further tips to ensuring a successful coaching experience are to:

- Break the learning into small tasks or steps
- Take time to ensure each step is learned correctly before moving on to the next step.
- Bad habits are difficult to correct.
- Match abilities and tasks.
Resources For a Mastery Level Leader

Since a significant component of the mastery level projects is to assist members to locate resources to enhance or their project experience. The following are some sources of additional information and resources:

The Catalogue of Supplies

This resource gives more information than the on the different projects and specific details on leader or member manuals, record books and related resource material. The resources listed in the catalogue include books, pamphlets, promotional supplies and audiovisual materials for project, leadership and general topic areas.

People to Help

1. Head Leader
   - Your 4-H club’s head leader is one of the first people to contact for information and help. If you are a head leader, contacting another 4-H head leader can create a great buddy system for support, questions and ideas.

2. Leader Training Opportunities
   - Take advantage of any leader training opportunities.

3. 4-H Leaders/Members
   - Other 4-H project leaders and/or senior 4-H members can be excellent source of experience and/or ideas about: resources to access, project leadership techniques, working with specific age groups etc.

4. Community
   - Check out staff at local schools, RCMP headquarters, hospitals and other local services to assist with your 4-H program. There are often many people in your community who have expertise in a specific area that could speak at your project meeting. You could also take a tour of some local business like a local veterinary clinic, bakery, craft store, farm, grocery store etc.

5. Manitoba 4-H Council Office
   - Manitoba 4-H Council coordinates, develops and administers provincial 4-H policy and delivers provincial 4-H events, programs and activities.
   - www.4h.mb.ca

6. Manitoba Agriculture, Food and Rural Initiatives (MAFRI)
   - MAFRI is responsible for the development and continuation of the 4-H program in Manitoba. Some specific examples include:
     - Creating and providing 4-H project materials
     - Collecting 4-H enrolment data
     - Delivery of 4-H member and/or leader skill development workshops, fact sheets, and mentoring
     - Liaison/mentor to area, provincial and national 4-H councils
   - At the GO Centre/Office, Rural Leadership Specialist, Farm Production Advisor, Business Development Specialist, Knowledge Assistants & Extension Coordinator support the 4-H program in a variety of manners. Contact your GO Office/Centre or email 4-H@gov.mb.ca for support with:
     - Project delivery questions
     - Support in skill development for members or leaders (e.g. communications, meeting management, leadership)
     - 4-H resources
Youth Learning Characteristics - Background for a Mastery Level Leader

Below you will find a list of characteristics that are common to children in five different grade levels. Please remember, however, that children develop at their own pace, and all characteristics will not be observed in all children at the same age or in the same grade. But you should find this outline helpful as you work with youth of different ages.

Grades 7 – 10 (12-15 years old)
- Tend to be very concerned with themselves and their peer group. Relationship skills become a priority. Many begin dating, and acceptance by members of the opposite sex may become important.
- Since many are becoming aware of their own special abilities and talents, this is a good time for introducing them to leadership roles.
- As they begin to think about the future and make realistic plans, their vocational goals are often influenced by the activities they select.
- Mastering abstract thinking, they imagine new ways of doing things that sometimes challenge adults.
- Set their goals based on feeling of personal need and priorities. Any goals set by others are likely to be rejected.
- Can initiate and complete tasks without supervision. Leader’s role should be that of advisor/coach.

Grades 10 – 12 (15-17 years old)
- Finishing up high school and moving on towards independent living away from their family.
- Future plans are important as they begin making the transition to adult life. Their goals for the future influence which activities they continue.
- In most cases, they determine their own schedule and only general directions are needed when they are assigned familiar tasks.
- Close relationships develop as they become preoccupied with their need for intimacy.
- Make and carry out serious decisions, but still need adults for support and guidance.
- Adults no longer control activities, but should serve as resource people, helping to stimulate teens’ thoughts.

Four Basic Needs Common To Everyone

There are some very distinct differences between the interests and needs of an eight year old and those of a 21 year old. However, there are certain basic needs that are common to everyone, regardless of age, that you should keep in mind when working with your members.

- The need for recognition, causing a person to seek experiences and understanding in which there is social approval, commendation and prestige; and to avoid experiences that result in ridicule and disapproval.
- The need for power, causing the person to seek experiences that hold promise of achievement, success, self determination and mastery; and to avoid situations that involve frustration and a sense of failure.
- The need for new experiences, causing a person to seek experiences that provide adventure, excitement and change; and to avoid situations that are monotonous and boring.
- The need for security, causing a person to seek experiences that give assurance of protection, confidence and belonging; and to avoid situations involving danger, insecurity and fear.
Learn To Do By Doing

4-H Experiential Learning

“Learn to do by doing” is one of the main reasons 4-H has been so widely recognized and respected in the field of informal education. It engages the learner, encouraging them to think more, work hard, and ultimately learn more thoroughly than with traditional teaching methods. Experiential learning is more than just doing activities. It involves discussing the activity, drawing conclusions from the activity, and applying them to the real world.

Dream it! Do it! Dig it! is based on Experiential learning.

Learn To Do By Doing

One of the principles behind all 4-H training is “Learn To Do By Doing.” The 4-H motto is based on sound principles – people learn by doing and achieving.

People generally remember about 10% of what they read.
While some material can be simply read and understood by members, providing reading material ahead of time is best.

People generally remember about 20% of what they hear.
Lectures should be kept very short. Always keep it under 30 minutes with younger children.

People generally remember about 30% of what they see.
Try to make a demonstration part of every lesson. “The eye is the window to the brain.”

People generally remember about 50% of what they hear and see.
Explain and demonstrate the principle.

People generally remember about 70% of what they say and write.
Explain and demonstrate the principle and have the member write it down and repeat it back. Record books and journals will also reinforce the project concepts.

People generally remember about 90% of what they say and do.
Whenever possible the member should have the opportunity to practice. The ideal lesson is five minutes of explanation, ten minutes of demonstration and fifteen minutes of practice.

4-H Online Resources

www.4h.mb.ca
Www.manitoba.ca/agriculture/4h
4h@gov.mb.ca
www.4-h-canada.ca
4-H Food Safety

Guidelines for Food Safety

Because we eat most of our food at home we learn most of our food preparation habits at home including the guidelines for food storage, meal preparation and cooking food. If improper food safety techniques are learned and practised, people can get sick. As a leader, it is important to teach the proper methods of keeping food safe before, after and during meal preparation to young people to ensure they are kept safe from potentially dangerous foodborne illnesses. Smart food safety begins at home!

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) can prevent many foodborne illnesses.

Foods that could give you food poisoning should be kept below 4 degrees Celsius or, for hot food, above 60 degrees Celsius (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 degrees Celsius and 60 degrees Celsius (40°F -140°F) we call it the Temperature Danger Zone. When you get foods home refrigerate and freeze foods immediately. Keep foods in the refrigerator at the 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 potentially hazardous foods.

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

- Less than 2 hours - Refrigerate immediately
- Between 2 hours and 4 hours - Use immediately
- More than 4 hours - Throw out
- When in doubt, throw out!!!!

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

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.
- 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.

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 staying safe in the kitchen. Some examples might be:
  - No running or horseplay in the kitchen
  - Wash hands
  - Keep fingers out of the food
  - Read recipes all the way through before starting
- Have the members agree to and take ownership of the rules by adding their own rules to the list as appropriate.
- Make a poster with the rules on it so the members can read them at all times.
- Review the rules once the members arrive to each session – have members take turns reading the rules out loud.

Tips for preparing for 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. Give each member and group a copy of the recipe, if using one other than printed in the manuals.
- Have the members or yourself assemble the equipment and ingredients required on trays or on the table.

Feel free to use your own recipes if you think they are appropriate. Also contact commodity groups for recipes using their food products; Flax Council of Canada, Pulse Canada, Manitoba Pork Council, Canola Council of Canada, etc.
FOOD ALLERGIES:

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 that 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 and to administer an injection of the epinephrine and immediately call for an emergency service for transport 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
- Sulftes

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. You may want to designate the 4-H cooking zone as allergen-free to avoid residues on materials. Make certain that all members, leaders, and parent helpers know the treatment for allergic reactions.
What is 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

Do Any 4-H Members have Allergies or Intolerances?

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<th>Member Names</th>
<th>Allergy/Intolerance</th>
<th>Symptoms</th>
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Food Importance

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.

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. 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!
In the Member Manual - Member Introduction Pages

Linking to Your Leader

What kind of support should members doing this Master level project have? Support for the project may include a 4-H club leader, community leaders and MAFRI GIO and 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.

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- Building self-confidence - Offering encouragement and appropriate praise can be very empowering to those receiving it.
- Providing challenges - Planting the seed of inspiration to work towards a personal best through a variety of growth experiences. This is often referred to as coaching.
- Offering perspective - Helping the mentee see the big picture. This is often done through helping the mentees identify their feelings and providing feedback that gives them both accurate information and encouraging them to explore the options available to them.

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 used 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 elbows 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 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

Skills Checklist

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

Dream it!

Background for Leaders

Bread has been one of the principal forms of food for humans from earliest times. This Builder will help members activate their prior knowledge about bread. Bread is a mixture of flour and water that is baked. Yeast is added to make a leavened product. Wheat is the most common source of flour in Canada. The endosperm is the only part of the wheat kernel used in white, refined flour. The bran and germ are added to the endosperm to make whole wheat flour. There are many ways to shorten the process of making homemade bread, yet still achieve the smell and taste of an oven-fresh loaf. This can include using a dough mixer, a bread machine, or buying a brown and serve or parbaked loaf from the grocery store. In this Builder, members will do an experiment to determine the power of proofing a loaf of bread and bake a whole wheat loaf of bread.

Important Words

Help members define the following words and listen for them using these words in their discussions. To increase the members’ understanding try providing a synonym members know or describe examples. The more personalized the examples the better.

<table>
<thead>
<tr>
<th>Kneading</th>
<th>To work into a uniform mixture by pressing, folding, and stretching.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proofing</td>
<td>To cause dough to rise due to the addition of baker’s yeast or other leavening agent.</td>
</tr>
</tbody>
</table>

Age Considerations

- 11 and up

Thinking Ahead

- What will you discuss with members? Gather observations and think of examples that will help support your discussion.

Preparing for Success

- Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.
Do it!

The Power’s in the Proofing

Time Required: A couple hours

Equipment/Supplies

- 1/2 cup (125 mL) of flour
- 1 1/4 cup (125 mL) warm water
- 1/2 tsp (2.5 mL) of yeast
- a pinch of sugar
- a sandwich bag or a small container
- paper plate
- weights
- scale

Instructions

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. Have members find out how long will it take for the dough to burst out of the bag or container?
   Can members 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. They should record the weight of the dough, the time it took the dough to burst out of the container, how much they think it can lift, and how much they made it lift.
5. They should also record their process.
6. After the experiment, separate the 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

Time Required: 3 hours

Yield: 1 Loaf

Ingredients:

- 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 an oven 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 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.

11. Cut with a sharp serrated knife using a sawing motion.

**Picture This**

**Time Required:** 10 minutes

**Instructions:**

Have the members attach a picture in their books of them and their loaf of bread. They may wish to hold their loaf or be shown eating it. Have them provide a caption for the picture in the space below.
Dig it!

Have the members analyze their loaf of bread in the following categories to see what they need to change to improve their loaf of bread.

<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>
</tr>
<tr>
<td>Texture:</td>
<td>Soggy</td>
<td>Tender yet Crisp</td>
<td>Heavy and Hard</td>
<td>Full of Holes</td>
</tr>
<tr>
<td>Taste:</td>
<td>Yeasty</td>
<td>Sweet/Nutty</td>
<td>Off</td>
<td></td>
</tr>
</tbody>
</table>

Have the members come up with reasons why their loaf might have not turned out correctly. Possible causes for each of the problems are:

- Flowing Over - pans too full
- Weak Top - not enough flour
- Did Not Rise - dough not kneaded enough or liquid killed yeast due to being too hot or too cold
- Wrinkled Crust - drafty environment
- Slumped Top - not enough kneading or too much liquid
- Pale Colour - have the shelf too high or using a shiny, unseasoned pan
- Dark Colour - too high of oven temperature
- Soggy Texture - too much liquid or not cooked enough
- Heavy & Hard Texture - not allowed to rise enough
- Full of Holes - dough rose for too long
- Yeasty Taste - dough rose for too long
- Off Taste - ingredients were not fresh

What's next?

Skill Builder 2 helps members choose a health issue that impacts the ability to eat bread. For example, an allergy or intolerance may mean that people must look for alternatives or modify the bread they eat. Members will research a health issue and make a recipe that is compatible.

Leader's Notes
In the Member Manual

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

Important words
Watch for these important words throughout this builder: Kneading, Proofing

Dream it!

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

Do it!

The Power’s in the Proofing

What you will need: 1/2 cup (125 mL) of flour, 1-1/4 cup (125 mL) warm water, 1/2 tsp (2.5 mL) of yeast, a pinch of sugar, a sandwich bag or a small container, paper plate, weight scale

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 lid. Watch to see if the dough can lift the weights 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 it made it lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Whole Wheat Test

Ingredients for one loaf:
3 cups (750 mL) whole wheat flour
1 1/2 tsp (7 mL) instant yeast
1 1/2 tsp (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 measuring cup 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 wet, or does not hold its shape, add a little more flour.
3. Turn the dough out onto 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 wrap it up. 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, dig 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.
In the Member Manual

**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>
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<td></td>
</tr>
<tr>
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<td>Tender/Crisp</td>
<td>Heavy and Hard</td>
<td>Full of Holes</td>
</tr>
<tr>
<td>Taste:</td>
<td>Yeasty</td>
<td>Sweet/Nutty</td>
<td></td>
<td></td>
</tr>
</tbody>
</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 ...

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!

Background for Leaders

Allergies, intolerances, and diseases can make the consumption of bread difficult and even deadly for some people. However, by modifying the bread recipe, these people can eat a different type of bread. Wheat allergies are among the eight most common food allergies. Wheat allergies generally cause asthma, eczema, and sometimes anaphylaxis. Common foods that contain wheat are baked goods, pasta, canned soup and chilli, cereal, condiments, beer, candy (especially with nougat), and gravy. Wheat proteins are also commonly hidden in daily use items, like hair products or arts and crafts materials.

Celiac disease is an autoimmune disorder affecting the body’s ability to process gluten proteins found in wheat and other grains. Celiac disease is not a wheat allergy, although they may both put similar dietary restrictions on those who suffer from them. People with celiac disease have to look for gluten-free foods when choosing what to eat.

Important Words

Help members define the following words and look for members using this vocabulary in their discussions. Ask for sentences that "show you know." When members construct novel sentences they confirm their understanding of a new word. Have members use as many terms per sentence to show that connections are useful. Members can also create impromptu speeches using these terms.

<table>
<thead>
<tr>
<th>Allergy</th>
<th>An immune system response to a food ingredient that the body mistakenly believes to be harmful.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intolerance</td>
<td>When the body cannot properly digest a certain component of the food – often because there is not enough of a particular digestive enzyme.</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>A severe reaction to a food that has rapid onset and may cause death without emergency treatment.</td>
</tr>
</tbody>
</table>

Age Considerations

- 11 and up

Thinking Ahead

- What will you discuss with members? Gather observations and think of examples that will help support your discussion.

Preparing for Success

- Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.
Activating Strategies

- Have the members choose and research a health issue that affects peoples' ability to eat bread. They should fill out what they already Know about the disease and what they Want to Know about it. They will fill out the Learned column in the Dig It! part of this Builder.

Do it!

Sources Search

Time Required: 20 minutes

Equipment/Supplies:
- A computer/internet
- A library

Instructions

Have the members do a quick search to find out some health issues that are associated with eating bread. After they have picked a topic, the second step to research is to find resources. Members should do a specific search on their issue and check out their pages quickly just to make sure they are a good source. There is a chart in the members' project books for them to fill in. Books, pamphlets, interviews with dieticians, other health professionals or a person living with the health issue are other sources of information.

Information Quest

Time Required: 20 minutes

Instructions:

Have the members look more closely through their sources to find out what their chosen health issue looks like, feels like, and sounds like.

Edible Eat

Time Required: Dependent upon recipe

Instructions:

Have the members find a recipe for a type of bread that someone with their chosen issue could eat. They are to write the recipe out in their book and then bake it and eat it. Have the members share their new information with each other and taste test all the recipes.

Check out:

Dig it!

Have the members fill out the Learned column of the Dream It! section with their new knowledge. They are to create an informational poster about their health issue. This might include causes, symptoms, treatment, famous people suffering from it, a list of foods to eat/not eat, where to find help, or anything they want to put on it.
What’s next?

Changing the shape of bread is a quick and easy way to make it look more interesting. Some of the goods the members will make in the next Builder will use a sweet bread recipe, which uses sugar. The members will see how to make both dinner rolls and cinnamon buns from the same recipe.

In the Member Manual

**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 certain products
- Make a bread product that people with those health issues could consume

**Important words**
Watch for these important words throughout this builder: Intolerance, Allergy, Anaphaxis

**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>My Topic:</th>
<th>Know</th>
<th>Want to Know</th>
<th>Learned</th>
</tr>
</thead>
</table>

**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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the Member Manual

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

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.

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.

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.

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

Skills Checklist

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

Dream it!

Background for Leaders

An easy way to make bread a little more fancy, is to shape it. Round balls can become buns, a rolled piece can become a cinnamon roll, a twisted piece can become a cinnamon twist, etc... Putting a little extra effort into a product by shaping it or adding a few more ingredients may lead to a larger profit margin at the end of a sale. People do like their regular bread, but a treat is nice every once in a while.

Important Words

Help members define the following words and look for members using this vocabulary in their discussions. Have members describe the words in terms of their experiences to solidify their understanding of the words.

| Specialty Bread | A quality bread which uses a flour containing a higher protein level. This allows for a shorter mixing time, causing less oxidization of the dough and a darker crust. Also, any bread with additions or substitutions other than white or whole wheat bread.
| Sweet Bread     | Any type of bread prepared with sweet ingredients, such as sugar or honey.

Age Considerations

- 11 and up

Thinking Ahead

- What will you discuss with members? Gather observations and think of examples that will help support your discussion.

Preparing for Success

- Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.

Activating Strategies

- Have the members think of shapes they have seen bread come in. They may even want to make up their own. If they are stuck, have them think about shapes first. A possible answer might be: Oval - French Bread, Sphere - Monkey Bread, Rectangular Prism - Pullman, Cube or Cylinder - Cinnamon Bun, Torus - Donut.
- There are real names for each shape such as Bloomer, Cob, Boule, Coburg, Cottage, Baguette, and Fougasse. The members have some good websites to visit in their manual. They are:
Do it!

Bun Fun

Time Required: 2.5 hours

Instructions:

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 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 their original size. 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

Time Required: 2.5 hours

Instructions:

Ingredients:

- Sweet bread dough (bun recipe)
- 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.

Note: Cinnamon Rolls require extra ingredients for the carmelized bottom.
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?

Time Required: 3 hours

Information:
Preparing the dough:
1. Mix up the bread dough following recipe instructions (you may use the sweet bread or regular).
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.
2. (Working from the middle is easier and helps avoid stretching the dough, which results in an uneven loaf.)
3. Braid the ropes loosely so the dough has room to expand without cracking or losing its shape.
4. Gently straighten the ropes on the baking sheet.
5. Pinch the ends of the ropes together and tuck the sealed portion under the braid so the ropes, won’t come apart during baking.
6. Cover the braid and let rise in a warm place till almost double.
7. For a crisp, shiny crust, brush the braid with a mixture of 1 egg yolk and 1 tbsp (15 mL) milk.
8. If desired, sprinkle with a little sugar, sesame seed, or poppy seed atop each braid.
9. Bake as directed in the recipe.

Dig it!

Have the members compare the profit margins of a regular loaf of bread with an equivalent amount of a specialty bread (i.e. 12 dinner rolls, 6 large cinnamon buns). Members can find the sale price of both items in a grocery store, at a farmer’s market, or online. Then members need to find the expenses to producing each by adding up the cost of ingredients, electricity, equipment, and wages. By subtracting the expenses from the revenue, the profit is found. Have members hypothesize why they think the one has a higher profit than the other. Ask them which they would rather bake. They may choose the one with the lower profit margin just because they find it more fun to bake.
What's next?

Skill Builder 4 will help members put that extra touch on a loaf of bread. Whether through the addition of fruits, nuts, seeds, or even vegetables, trimmings can take treats to the next level. Glazes and icing will also be explored as ways to make sweet breads even sweeter. Have the members bring cookbooks with a breads section to look through at your next project meeting.

Leader's Notes
In the Member Manual

Cinnamon Whirl

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

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: 1/3 cup (125 mL) margarine (melted), 1/2 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.

Maids of the Braid?

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

Braiding the bread:
- 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.
- Braid the ropes loosely so the dough has room to expand without cracking or losing its shape.
- Gently straighten the ropes on the baking sheet.
- Pinch the ends of the ropes together and tuck the sealed portion under the braid so the ropes won’t come apart during baking.
- Cover the braided loaf and let rise in a warm place till almost double.
- For a crisp, shiny crust, brush the braided loaf with a mixture of 1 egg yolk and 1 tbsp (15 mL) milk.
- If desired, sprinkle with a little sugar, sesame seeds, or poppy seeds atop each braid.
- Bake as directed in the recipe.

Tasty Bites!

Dig it!

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>
<td></td>
<td></td>
</tr>
<tr>
<td>Your Pay (base on time):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cost =</td>
<td>$ / loaf</td>
<td>$ / loaf equivalent</td>
</tr>
</tbody>
</table>

Sale Price - Total Cost = $ / loaf $ / loaf equivalent

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 strand, 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, iced or glazed can make your sweet bread even sweeter! Bring one of your favourite bread cookbooks.
**Skill Builder 4: Extra Elements**

**Skills Checklist**
- Add fruit/nuts to a bread
- Glaze/ice a bread

**Dream it!**

**Background for Leaders**

Shaping bread is only one way to make it more interesting. Adding different ingredients is another. Grains can be substituted in for part of the flour. Some options are wheat berries, flaxseed, sunflower seeds, sesame seeds, poppy seeds, cornmeal, oat flakes, rye flakes or flour, spelt/kamut flakes or flour, millet, triticale flakes or flour, ground buckwheat, and even cooked wild rice. Besides grains and seeds, fruits, vegetables, and nuts are also common additions to specialty bread recipes. Glazes and icings are two other toppings that sweeten up any sweet bread recipe.

**Important Words**

Help members define the following words and look for members using this vocabulary in their discussions. A few strategies you can use include:
- Teach synonyms by providing a synonym members know.
- Also, teach antonyms. Not all words have antonyms, but thinking about opposites requires the members to evaluate the critical attributes of the words in question.
- Provide non-examples. Similar to using antonyms, providing non-examples requires students to evaluate a word’s attributes. Invite students to explain why it is not an example.

| Glaze     | A mixture applied after shaping the bread to give the final product a shine. |

**Age Considerations**

- 11 and up

**Thinking Ahead**

- What will you discuss with members? Gather observations and think of examples that will help support your discussion.

**Preparing for Success**

- Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.

**Activating Strategies**

- Have the members flip through their cookbook to see what types of additions can be put into bread. They can either list them in their project manual or create a word web. You may want to bring a few extra cookbooks, just in case the members forget. After the lists/webs have been created, discuss any interesting additions the members found, which ones they would like to try, which ones they think might not taste so good, etc...
**Do it!**

**Bread and Beyond**

**Time Required:** 3 hours

**Instructions:**

Have the members modify the basic whole wheat bread recipe on page 4 of their manual. They can choose to do any or all of the following:

A) Substitute 1/2 cup (125 mL) of the whole wheat flour with any combination of wheat berries, flaxseed, sunflower seeds, sesame seeds, poppy seeds, cornmeal, oat flakes, rye flakes or flour, spelt/kamut flakes or flour, triticale flakes or flour, ground buckwheat, or cooked wild rice.

B) Cover the top of the loaf or line the loaf pan with sunflower seeds, sesame seeds or rolled grains. To get seeds to stick to the top of the loaf, rub water on the top of the loaf, then roll it in the seed/rolled grain.

C) Glaze the bread using one of the following choices:
   1. For a shiny dark brown finish: 1 egg yolk mixed with 5 mL (1 tsp) water OR 1 egg
   2. For a dull, crispy finish: 5 mL (1 tsp) cornstarch mixed with 60 mL (1/4 c.) hot water, brushed on before putting into oven, and halfway through the baking
   3. Lightly spray with water twice during baking
   4. Sprinkle with flour, bran, oatmeal, cornmeal, cracked wheat, poppy seed, or sesame seed

Have the members record what they chose in their project books. If you have other ideas or the members found other ideas in their cookbook search, this is the place to try them out.

**Amazing Glazing - Poppy Seed Loaf**

**Time Required:** 1.5 hour

**Instructions:**

**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
- 3 eggs
- 1.5 cups (375 mL) white sugar
- 2.5 tsp (12.5 mL) vanilla extract
- 2 tsp (10 mL) almond extract
- 1/4 cup (62.5 mL) orange juice
- 2 cups (500 mL) confectioners sugar

**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

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Another recipe that uses a glaze is hot cross buns!
Autumn Apple Bread

Time Required: A couple hours

Ingredients:
- 3 3/4 cups (925 mL) white flour
- 1/4 cup (50 mL) sugar
- 1.5 tsp (7 mL) salt
- 1 envelope instant yeast (8 g)
- 1 tsp (5 mL) cinnamon
- 1/2 cup (125 mL) warm milk
- 1/2 cup (125 mL) warm water
- 1/4 cup (50 mL) butter
- 1 egg

Ingredients For Filling:
- 1 cup (250 mL) peeled and coarsely chopped apple
- 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. Continue kneading until dough is smooth, elastic and no longer sticky (about 5 minutes).
6. 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).
7. 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.
8. Shape into a loaf. Place seam side down in greased 9” (22.86 cm) loaf pan. Cover with tea towel.
9. Let rise in warm place until dough rises 1” (2.5 cm) above top of pan (60-75 minutes).
10. 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

Dig it!

- Do the members like their bread plain or with different additions?
- Have them judge their first loaf where they added the different grains, seeds, etc…
- There is a scorecard where members can give themselves points. Each category is worth a certain number of points and if the loaf of bread satisfies all the criteria in the category, they receive full marks.
Judging Hints

- The crust should be a golden brown in colour in order to receive the score for its shade. A pale loaf or one baked too brown would not receive full credit. If the required color extends uniformly over the entire loaf, the bottom and the sides, as well as the top, more is added to the score of the crust for uniformity of color. After these points are scored, a slice of bread should be cut from the loaf using a sharp serrated knife, in order that the remaining points may be scored. With such a slice cut, the character of the crust, by which is meant its toughness or its tenderness, may be determined. A full score is given if it is of sufficient tenderness or is devoid of toughness. The depth of the crust, which depends on the amount of baking the loaf has had, should be 2-3 mm (1/8”) thick. A deep crust, which is the preferred kind, is produced by long, slow baking; bread that is baked only a short time has a thin crust, which is not so desirable and would not score so high.

- The lightness of the bread can easily be scored when the bread is cut. It is judged by the size of the holes. If the bread is not light enough, the holes will be small and the bread will feel solid and unelastic; if it is too light, the holes will be large and coarse. Internal characteristics include the even distribution of gas, which is determined by the uniformity of the holes. If the kneading has been done right and the bread has risen properly, the gas will be distributed evenly through the loaf, with the result that the holes will be practically the same throughout the entire loaf.

- The moisture in the bread, is tested by pinching a crumb between the fingers. If the crumb feels harsh and dry, the bread is not moist enough, and if it feels doughy, the bread is too moist. The elasticity is determined by pressing the finger gently into a cut place in the loaf. The bread may be considered to be elastic if it springs back after the finger is removed and does not break nor crumble. In colour, the inside of the white loaf should be of an even, creamy white. A dull white or gray color would indicate that flour of a poor quality had been used, and dark or white streaks in the bread would denote uneven mixing and insufficient kneading.

- The last thing to be scored is the flavour. To determine this characteristic, chew a small piece of bread well. If it is not sour nor musty, has a sweet, nutty flavour, and shows that the correct amount of salt and sugar were added in the mixing, it may receive a perfect score.

What's next?

Canadian breads are generally made from wheat, but around the world other grains are more common. Every language has a word for some type of bread. In the next Builder, members will be able to pick any country in the world and research the type of bread that comes from there.

Leader’s Notes
In the Member Manual

Skill Builder 4: Extra Elements

Andy Says....
Want your bread to glaze! This Builder will help you top off your sweet bread skills with a little something extra. You will also learn to bake a bread that uses fruit. Bread should never be boring after this Builder!

Skills Checklist
- Add fruit/mix to a bread
- Glaze a bread

Important Words
Watch out for this important word in this builder!
Glaze:

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.

Tasty Bitset!
If you want to use an online cookbook, try www.cookingbread.com or allrecipes.com/recipes/Bread/
Mmm.aspx

Do it!

Bread and Beyond
Try substituting 1/2 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 grain 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?

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 tsp (15 mL) poppy seeds
- 1 tsp (10 mL) butter
- 1/3 cup (80 mL) vegetable oil

Directions:
1. Preheat oven to 350 degrees F (175 degrees C). Grease bottoms of two 9" (22.86 cm) leaf pans.
2. Mix together flour, salt, baking powder, poppy seeds, 1.5 tsp (7.5 mL) butter, oil, eggs, milk, sugar, and 1.5 tsp (7.5 mL) vanilla. Add 1 and 1/2 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 leaves 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

Autumn Apple Bread

Ingredients:
- 3 3/4 cups (925 mL) white flour
- 1 1/4 cup (30 mL) vegetable oil
- 1 tsp (7 mL) salt
- 1 envelope instant yeast (8 g)
- 1 tsp (5 mL) cinnamon

For Filling:
- 2 tsp (10 mL) cinnamon
- 1 cup (250 mL) peeled and coarsely chopped apple

Directions:
1. Combine first 5 ingredients in a mixing bowl. In separate bowl, combine milk, water and butter.
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. Continue kneading until dough is smooth, elastic and no longer sticky (about 5 minutes).
6. 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).
7. 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.
8. Shape into a loaf. Place seam side down in greased 9" (22.86 cm) loaf pan. Cover with tea towel.
9. Let rise in warm place until dough rises 1" (2.5 cm) above top of pan (60-75 minutes).
10. 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
In the Member Manual

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 File.

Dig it!
What type of bread did you like best? Bread with additives 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 flavor 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?

Andy's Fun Facts!
You can add fruit to your bread, or you can grow a breadfruit. Breadfruit trees 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 lusse.
Skill Builder 5: Across the Globe

Skills Checklist

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

Dream it!

Background for Leaders

Every culture has a type of bread that it is famous for. Belgium has waffles, Mexico has the tortilla, France has the croissant, and so on. Some countries have multiple breads they are famous for. Italy is also known for its foccacia, pane carasau, piadine, pizza, and ciabatta. There are many resources on international breads. You may be able to find some recipes in your cookbooks, or you could visit some of these websites in the Resource section below.

Important Words

In this Builder, the members will come up with their own set of Important Words during the Dig It! section. They should pick words that kept showing up during their research or words that they did not know at first.

Age Considerations

- 11 and up

Thinking Ahead

- What will you discuss with members? Gather observations and think of examples that will help support your discussion.

Preparing for Success

- Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.

Activating Strategies

- Have the members discuss breads they have eaten and where they think they come from. There is a chart under the Dream It! section for them to fill in with six different examples. Even if the members are not positive of the country of origin, they can make an educated guess and check it out later. You may wish to have a map near at hand to show where each country is located. You might want to buy/make a few samples of world breads and have the members guess where each comes from.

Resources:

- whats4eats.com/breads
- Oklahoma4h.okstate.edu/aitc/lessons/extras/bread.pdf
- wbc.agr.mt.gov/Consumers/Teachers_students/BreadAroundTheWorld.pdf
- www.bread-maker.net/Bread-maker/Breads-around-World.htm
**Do it!**

**History Hunt**

**Time Required:** 20 minutes

**Equipment/Supplies:** Computer/internet or books on international breads

**Instructions:**

Have the members pick a country and then find a common bread from that country. If the members are struggling to find information, they may want to choose a different country. You may want to encourage members to make sure they can find all the information necessary for this Builder before they begin to write down answers. This will prevent having to erase everything when a recipe cannot be found. They should give a description of the bread that includes main ingredients, how it is baked, size, and shape, etc.… Pictures are allowed. Members are to give a brief history of the bread, based on who, when, where, how, and why it was invented. If they come across any interesting facts in their research, they may include them also on page 15 in their manuals.

**Cultural Influences**

**Time Required:** 20 minutes

**Instructions:**

Have the members delve further into the culture of the country and think about why their bread came to be like it is. Crops grown in the area and the purpose of the bread might be two important factors in finding the answer. For instance, corn tortillas are made in areas where corn is plentiful and wheat is not. If the bread was to provide sustenance for nomads, it is unlikely that it would be shaped like the French baguette.

**Recipes Round the World**

**Time Required:** Dependent upon the recipe chosen

**Instructions:**

Have the members find a recipe for their chosen bread, write it down in their manual, bake it, and taste it. If you have multiple members, you may want to have a cultural fair and have them share their knowledge and food with each other.

**Dig it!**

Have the members fill in the Important Words box on page 15 of their manuals. Discuss what a Canadian Bread is. If the members do not think there is one, have them describe one. They should include a picture of them and their international bread. They may want to put a flag or poster in the background so that when someone looks at the picture, they can know where the bread originated from. They will also need to fill out the caption below the picture.

**What's next?**

The final builder will let the members plan a bake sale or farmer’s market display where they can sell their baking. They will advertise, decide what to make, and decide where to put their profits.
In the Member Manual

Skill Builder 5: Across the Globe

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

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

Important Words
What words are important to you in this builder:

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>
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<td></td>
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</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?
In the Member Manual

Cultural Influences

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.)

__________________________

Andy’s Fun Facts!

Flat breads are the most popular kind of bread around the world. They include crepes, pizza, waffles, tortillas, pita, main, 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.

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!

Tasty Bites!

Try these websites for more information:
www.breadaroundtheworld.com,
www.bread-makes.net/bread-makes/Breads-around-the-World.htm
whatsfood.com/breads,
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?

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

Skills Checklist
• Plan a bake sale/farmer's market
• Understand profit margins in baking

Dream it!

Background for Leaders
One of the trends in today’s consumer market is to buy local. Healthy foods are in abundance at farmer’s markets and tasty not-so-healthy treats are also available. Partaking in a bake sale or farmer’s market is a good way to make some extra money if you really like to bake and want it to be more than a hobby. In order to keep food safe for consumption, there are lots of rules that need to be carefully followed. Remember to keep hot foods hot at 60°C (140°F) or hotter, keep cold foods cold at 5°C (41°F) or colder, and keep frozen food frozen at -18°C (0°F) or colder.

Important Words
Some examples of how to use the “important words” to increase the members understanding are:
• Ask members to form a mental image of the new word.
• Get members to use a dictionary and show them the range of information it provides.
• Have members describe (rather than define) the new word in terms of their experiences.

| Bake Sale | A sale of homemade, donated baked goods, as by a church or club to raise money. |
| Farmer’s Market | A short-term operation for the sale of produce and prepared food products under the direction of a designated operator |

Age Considerations
• 11 and up

Thinking Ahead
• What will you discuss with members? Gather observations and think of examples that will help support your discussion.

Preparing for Success
• Linking back to the Skills Checklist, help members identify how they will know they have been successful in learning from this builder. Discuss what success in these activities might look like, sound like, or feel like.

Activating Strategies
• Have the members decide whether to have a bake sale or be a part of a farmer’s market. They need to figure out the date, time, location, who is helping them, how they are making the food (bread machine, from scratch, from parbaked products, etc…), what they are making, how much they are selling each item for, how they will get the food to the venue, a shopping list, and where their profits will go (themselves, their club, a charity, etc…).
Do it!

Propose a Plan

Time Required: 15 minutes

Instructions:

Have the members discuss their plan with you or another mentor (perhaps an established farmer's market vendor). Make suggestions if they are needed.

Promotion

Time Required: 30 minutes

Instructions:

Have the members create a plan to promote their bake sale/farmer’s market. This can include any format like going door to door, giving phone calls, placing posters around town, placing an ad in the paper, or placing an ad on your town’s website. The members should attach a copy of whatever they do in their book. If they go door to door or make phone calls, they could write out a script of the important information to pass on.

Picture This

Time Required: 10 minutes

Instructions:

During the bake sale/farmer's market, take a picture of the members and their table of baking. Have them fill out the blanks below about what is in the picture and what they want others to notice in the picture.

Dig it!

Discuss how the bake sale/farmer's market went. They have a place in their book to answer the following:

- What product sold the best? The worst?
- 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 leading the members through six builders and helping them master bread baking. The Showcase Challenge and Portfolio Page are the sections that the members still need to complete.

Read These Documents First!

www.inspection.gc.ca
www.gov.mb.ca/health/publichealth/environmentalhealth/protection/food.html

There are many rules for Farmer’s Markets so check with those in charge for extra rules.
In the Member Manual

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>

<table>
<thead>
<tr>
<th>Transportation:</th>
<th>Bake Sale or Farmer's Market!</th>
<th>How I'm Making The Bread:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Menu:</th>
<th>Price:</th>
<th>Shopping List:</th>
</tr>
</thead>
</table>

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...

Money Matters
To maximize profit, you need to consider both customer demand and price. It is generally not a good idea to refreeze baking as 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.
In the Member Manual

Tasty Bites!
Foodborne illnesses are a huge health concern so there are many rules to keep farmers' markets safe for consumers. Read them at www.gov.mb.ca/health/publichealth/environmentalhealth/protection/food.html or www.masterobfarmersmarkets.ca/

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.

Bread for Sale

My Plan:

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, go to 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 15 cm (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 at 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.
Showcase Challenge

Have members use their Member Manual to help them in organizing what they have learned. The form of presentation can vary according to the wishes of the leaders and member’s ability. Information could be presented in many forms, some of which are: posters, pamphlets, written reports, speeches, computer presentations, displays, etc. Suggestions are listed on the Showcase Challenge page at the back of the Member Manual. The best results are almost always obtained when members are allowed to present their information in the style of their choice.
Once members have completed all the Builders, they will have a lot of information recorded in their manuals. These are products of their learning. As a final project activity, members and leaders will pull together all the learning in completing the portfolio page in the Member Manual. There is a chart that lists the skills members are expected to complete by the end of the project. Leaders must indicate how they know the member was successful at a particular skill. Leaders will find evidence if they think about what they have observed members doing, what discussions they have had with members, and what members have produced. If leaders think that members need to go back and improve on any skill, this chart helps them clarify what needs to be done.
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:

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This manual is for educational use only and is not intended as professional advice.

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
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