

Baking Breads by Karen Whiting

Class Length: 12 units

Resources

- Kitchen, oven, plus tools for baking
- Various ingredients for baking breads
- Recipe notebook for collecting recipes and adding notes

Instructions

The first three units help students learn the basics before baking bread. This includes safety, tools needed, baking terms, and following recipes.

Course Table of Contents

1. Vocabulary/tools for breads and baking
2. Experiment with leavening—yeast, baking soda, baking powder (proofing)
3. Measuring/double/half recipes and cooking preparation
4. Yeast bread-whole wheat
5. Biscuits and adapting recipes
6. Garden Breads
7. Around the world breads
8. Refrigerated dough
9. Bread sticks
10. Muffins
11. Centerpieces
12. Business with muffin bouquets

Lesson notes

- Lessons 4-10 will each focus on baking a type of bread. Students will gather the ingredients and bake the bread.
- Lessons 11 will focus on serving, storing bread, and making centerpieces with bread. This lesson can be done at any time.
- Lesson 12 focuses on making money with breads.

Safety

Parents remember that cooking includes heat and children can get burned. Guide them through your kitchen and the tools they will use to make sure they know safety rules and procedures. Supervise all baking.

Optional Resource

The Gift of Bread: Recipes for the Heart and Table by Karen Whiting

The book contains 60 plus recipes and tips on bread making plus heartwarming stories around bread and devotions on bread in the Bible. Find it at

<https://www.christianbook.com/gift-bread-recipes-heart-and-table/karen-whiting/9781683970255/pd/970255?event=ESRCG>



Biblical insights

Lessons include an optional ending section that provides Biblical insights into bread in the Bible. This will include discussing Jesus the Bread of Life and the threefold purpose of bread in the Bible: sustenance, fellowship, and covenant with God).

About the Author of the course

Karen Whiting (www.karenwhiting.com) grew up in the restaurant business with her grandparent's restaurant. She made breads and other baked goods since preschool days. She's also a mother of 5 and help with her grandchildren's homeschooling. She's a former TV host, author of 25 books, international speaker, and writing coach.

Unit 1: Vocabulary

People have enjoyed bread from ancient times. By 2500 B.C. the Greek produced more than 80 types of bread¹. We'll explore the words about the grains used to make bread and then the kitchen tools for baking. Read about each grain and look at the pictures.

Objectives

- Learn about various types of grain
- Learn about tools used in baking
- Learn baking vocabulary

Study and then check out the grains

After studying the grains listed in this chapter. Go to a store that carries many types of grain (ones that carry whole foods) and look at the ones they carry

Grain

Flour, from grain, is the basic ingredient of bread. Various types are found all over the world and bread, in different forms, is a common food of all people. Wheat is the most common grain used for bread and often called the staff of life.

Wheat



Wheat is a yellow-brown grain used to make flour.

The edible part is called a kernel.

Wheat is the third largest crop produced in the United States. The US is the fourth largest producer of wheat

in the world (behind China, The European Union (many countries grouped together) and

¹ <http://www.dimpflmeierbakery.com/fun-facts-about-bread/>

India. It's grown in 42 states.

In 2012, the US exported \$18 billion dollars in wheat (total exports were 135 billion). Figure it out: what percentage of total US exports was wheat?

That's why the US has been called the world's breadbasket.

Wheat and nutrition

Wheat accounts for twenty percent of the calories consumed in the world.

40% of all food donations around the world are wheat

Although George Washington was the general in charge of the American Revolution he was also a farmer and one of the first Americans to plant wheat. George Washington was one of the first Americans who planted wheat. He planted soft winter wheat as early as 1766.²

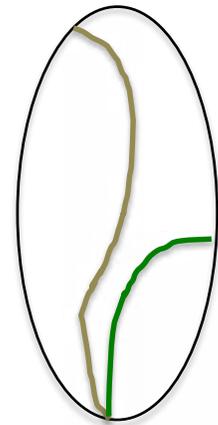
Kernel of wheat, also called the wheat berry

The kernel, or wheat berry, is the seed of the wheat plant.

The kernel consists of 3 parts:

- Bran, the outer shell that is high in fiber
- The germ that will sprout to grow new wheat
- The endosperm, mostly starch, used to make white flour. is 83% of the weight of the kernel.

Whole wheat flour is made from all three parts of the wheat.



This

Other grains for flours



Aramanth grain grows in South America. It's a small seed.

Bran



² <https://eatwheat.org/learn/george-wash>

Barley is an ancient grain used in Bible times



Corn is actually a grain and ground into cornmeal for cornbread.



Millet is another ancient grain mentioned in the book of Ezekiel.



Oats

Tolled oats are processed into a grain by passing the oats through steamed steel rollers.



Quinoa is a native grain of the Andes in Peru



Rice is also a grain used in breads. You may have tried rice cakes, the most common rice bread. It grows in a watery paddy.



Rye is a modern grain high in iron

Spelt is an ancient grain that is mentioned in Exodus 9:32 and Ezekiel 4:9



How flour is milled

Flours are produced by crushing and grinding grains.

The process is called milling. The grain is the head of the stalk of the plant and is separated out by threshing before the grinding is done. The same

process can be used

with nuts and other plants, such as almond flour or coconut flour. The process is called milling.

In early American culture flour was made at grist mills. You can still visit some grist mills,

including a working replica of George Washington's mill in Mount Vernon, Virginia.

The grinding stones are very large. You can also purchase a small home kitchen grain grinder mill.



Pictured above: Grinding stone and mill with outside water wheel.

Leavening agents

Leaven is the substance (ingredient) that causes bread to rise. There are three main types:

- Yeast is a single fungus that reproduce with budding or fission. The process is called fermentation and it causes bread to rise. Baker's yeast is used in many bread recipes.
- Baking soda is the name for the chemical sodium bicarbonate. When moisture is added there's a chemical reaction that produces bubbles of carbon dioxide. The bubbles expand in warm water and in warm temperature in the oven. Since it starts as soon as the baking soda is mixed in, the batter mixed needs to be cooked immediately or it could fall flat. Double acting baking powder can sit for a while before baking. The heat of the oven releases gas so the bread rises. It is more bitter than baking powder and needs to be offset with sweetness of sugar or buttermilk.
- Baking powder is a mix of baking soda and cream of tartar (an acidifying agent) and a drying agent (starch).
- Beer creates live yeast and can also cause bread to rise while cooking off the alcohol.

Tools baking bread

Tools pictures top to bottom:

- flour wand or shaker
- pastry blender
- scoop
- whisks
- zester

Check out the tools



See if you can locate the tools in your kitchen. For ones you don't have (some are nice

but not necessary) look for them in a store that carries kitchen supplies. If you want to see what any are like, do an online search.

Bread bags

Cloth bags used to store bread at room temperatures.

Bread knife

This is a long knife with serrated edges (looks like a row of waves along the edge) that makes it easier to slice bread.

Bowls for mixing

Bowls are a basic tool for holding and mixing the ingredients of a recipe. The size depends on the quantity of the ingredients. Crockery bowls stay warm as yeast dough rises in them.

Canisters

Lidded containers to hold flour, sugar, etc. to keep out moisture and bugs.

You can look up the shelf life of foods online.

Whole grains should be stored in the freezer for a longer shelf life.

- Shelf life of white flour in airtight container is 7-8 months.
- Shelf life of white flour stored in the freezer is about 12 months.
- Shelf life of whole wheat flour is 2-3 months in an airtight container, or 6-12 months in a freezer in an airtight plastic bag.
- Sugar never spoils so it can be kept indefinitely,

Flour wand or shaker

Tool that sprinkles flour on work surface for kneading dough. Fill the metal ball with flour and hold handle to shake out flour.

Graters and zesters

Small tools with fine blades to scrape the outside of citrus fruits to get the outer peel or to coarsely chop cheese or vegetables.

Knead means to work dough by pressing, folding, and stretching. This makes it more elastic and strengthens the dough before baking it.

Kneading mat is a silicone mat on which to work the dough (knead it). Or, you can use a clean countertop to knead bread.

Loaf pans

A pan that holds the amount of dough needed to bake one batch (loaf) of bread.

Measuring cups and spoons

In the US, we use ounces and fractions of one cup (8 ounces) and tablespoon and

teaspoons. Other countries use the metric system to measure ingredients.

Mixing spoons

Generally are used to measure small quantities of ingredients. They generally come in fractions of spoons and tablespoons.

Muffin scoop

Similar to an ice cream scoop, it's a hollow tool used to dip into dough and lift out the amount needed to fill each muffin cup.

Muffin tins for individual sized muffin can be mini-muffin tins or regular sized ones. Silicone muffin molds are also available.

Oven mitts or potholders are grips that protect your hands to safely handle hot pans and other containers

Pastry Blender

A hand-held tool with a row of parallel curved cutting edges that cuts butter or solid fat and blends it into the flour.

Pastry brush

Tool with bristles at one end to apply melted butter or other liquid to surface of dough or cooked bread

Rolling pin

Cylinder you roll back and forth over dough to flatten it. They are most often made of wood.

Shelf life

Length of time a food remains healthy to eat.

Proof the yeast

A test to make sure the leaven is good. You place yeast in warm water and see if it foams or bubbles. (You'll do this in the next unit)

Biblical Insights

The vessel bread is cooked in shapes batter for muffins and loaves of bread. Heck out how we are vessels and God shapes us.

Now in a large house there are not only gold and silver vessels, but also vessels of wood and of earthenware, and some to honor and some to dishonor. Therefore, if anyone cleanses himself from these things, he will be a vessel for honor, sanctified, useful to the Master, prepared for every good work. —2 Timothy 2:20-21 NASB

How are you a vessel?

They turn everything upside down. How silly they are to think that potters are like the clay they work with! Can what is made say to the one who made it, "You didn't make me"? Can the pot say to the potter, "You don't know anything"?— Isaiah 29:16

How does Good shape you to be useful?

The Need for Bread

One of the three main purposes of bread is the Bible is a reminder that we need food, grain, to survive. It's sustenance for people.

Read these verses and think about how God knows we need food and need to work for it.

Elijah looked around. Near his head he saw some bread. It had been baked over hot coals. A jar of water was also there. So Elijah ate and drank. Then he lay down again. —

1 Kings 19:6

By the sweat of your face You will eat bread, Till you return to the ground, Because from it you were taken; For you are dust, And to dust you shall return." —

Genesis 3:19 NASB

Why do we need bread or grains?

Spiritual food

The Holy Spirit led Jesus into the desert. There the devil tempted him. After 40 days and 40 nights of going without eating, Jesus was hungry. The tempter came to him. He said, "If you are the Son of God, tell these stones to become bread."

Jesus answered, "It is written, 'Man must not live only on bread. He must also live on every word that comes from the mouth of God.'" Matthew 4:1-4

What food does this passage remind us is more important than bread?

Unit 2 Experiment with yeast and leavening

Objectives

- To understand what happens with yeast and other leavenings
- Understanding properties of bread ingredients and how they impact the outcome

Chemical changes take place within bread dough as ingredients are combined and continue through the baking process.

Yeast

Yeast is a fungus, a cell that grows and reproduces. As it grows, it releases carbon dioxide and that's what causes the bread to rise. Plants produce carbon dioxide into the air, but yeast is unique in how it can react with the grains, water and sugars to make bread rise. Check out yeast the following experiments.

Yeast reactions

1. Pour yeast into $\frac{1}{4}$ cup of warm water. Watch and observe the bubbles that form. They are the result of carbon dioxide being released. It shows the growth of the yeast. That's the power that causes the bread to rise.

Now try it with adding sugar to the yeast and water and see how much faster bubbles form. Sugar activates the yeast.

2. Balloons, sugars, and yeast.

You can see how different sweeteners impact the growth of the yeast.

Supplies: yeast, warm water, honey, brown sugar, white sugar, empty water bottles, balloons and tape

Directions

- Put 1 cup warm water into each of three bottles.

- Add two teaspoons white sugar to one, brown sugar to the second, and honey to the third. Put the lip of a balloon over each bottle opening and tape to secure (or use a rubber band).
- Observe how the growth of yeast inflates the balloons. Some may take an hour while others may inflate sooner.
- Write about what your observations.

Yeast and Sally Lunn Bread

One easy way to experiment with yeast and then use it in cooking is to make Sally Lunn Bread. The yeast is dissolved in water and sugar, so it tends to bubbly quickly and rise up. Here's a video link to watch: <https://www.youtube.com/watch?v=lu-oHGcS2Aw&t=2s>

Other leavens

1. Baking powder is a mix of acids, bases, and cornstarch to keep the ingredients dry. When water is added the acid and base react. Add some water to a bowl that has one teaspoon of water and watch what happens. The bubbles indicate the release of carbon dioxide. Read the label to see what's in the baking powder. Usually, you'll find the base (bicarbonate of soda) and the acid (cream of tartar).

Stores generally sell double acting baking powder. That means it reacts twice: once when it is combined with ingredients that activate it and again in the oven in reaction to heat. It contains a second acid (like sodium aluminum sulfate) that only reacts to the combination of wet and heat.

2. Baking soda is simple one ingredient and that's bicarbonate of soda. Add water and you'll see a reaction. Add an acid, like vinegar and you'll see a much bigger reaction.

Differences

- Baking soda's more alkalinity encourages browning.
- Cookies with baking powder tend to have more of a cake texture, rise more (double rising) and spread less.
- Cookies are more often made with baking soda.
- Cakes are more often made with baking powder.
- Quick breads use the faster leavening of baking powder or baking soda (sometimes both).
- Note that cake baked with baking soda will not taste good as it produces a more bitter taste.

Try-it

Substitute baking powder for baking soda when making cookies and see the difference.

Let's look at some other ingredients.

Sweeteners like sugar and honey add a sweet flavor plus help the bread to rise faster. The bread will rise without the sugar. It also adds to the browning of the bread. Try making biscuits without sugar.

Other bread ingredients

Liquids

- Liquids add moisture (hydrate) the flour.
- They help bind the ingredients together.
- They mix with flour to form gluten the glue that holds the bread together.

Water

Breads with only water have a more open texture (holes in bread), a crispier crust, and more of a wheaty flavor. Water blends well with flour to make a sticky and elastic dough.

Water temperature

Yeast is usually dissolved in warm water. If the water is too hot it can kill the yeast

cells or over stimulate them and cause a problem in the bread rising. The water temperature should be 110-115 degrees Fahrenheit.

Milk or Buttermilk

Milks make a more velvety texture and richer bread. The crust is softer and browns more quickly because of the sugar and fat in it.

Before pasteurization, milk needed to be scalded to kill bacteria before adding it to flour.

Non-dairy milks like soy, almond, and coconut can be substituted but that will change the texture and flavor.

Buttermilk information

Nutrition Facts: 100 g of buttermilk contains 40 calories, 116 mg calcium, 4 mg cholesterol, 105 mg sodium, 0.5 g saturated fat, and 1 mg of Vitamin C.

Regular buttermilk is the liquid left after churning milk into butter.

Cultured buttermilk is milk that has been fermented to thicken it

You can make a buttermilk substitute by adding lemon juice and letting it sit for seven minutes

Buttermilk is much lower in cholesterol than regular milk and a tiny less in calories. It tastes more bitter or sour than milk and contains less fat than milk.

Many cooks think buttermilk makes biscuits more flaky and richer.

Milk facts

Nutrition facts: 100 grams of milk contains 42 calories, 125 mg calcium, 6 mg cholesterol, 44 mg sodium, 0.6 mg saturated fat, and 0 mg of Vitamin C.

Buttermilk or milk test

Try making two batches of pancakes, one with milk and one with buttermilk. Observe which ones rise on the griddle as they cook. That shows you the difference in cooking biscuits.

You can also try baking two batches of biscuits, one with milk, and one with buttermilk.

Liquid	MILK	BUTTERMILK
Flakiness		
Rise		
Taste		

Eggs

Eggs are another liquid and add richness, more yellow color to the bread, and make it more tender. They also add other nutrients. Experiment by comparing colors of breads with and without eggs.

Salt

Salt is an important ingredient in bread for several reasons

- Provides flavor. If you omit the salt, the bread will have a flat taste.
- Salt strengthens the gluten to better hold in the carbon dioxide for better rising.
- Salt attracts moisture and can slow down the yeast activity (fermentation). That is why the bread may need two risings.
- Salt effects crust color. Salt slows down the fermentation so more residual sugar is left for the crust to color nicely.
- Salt is a preservative. It preserves both the color and flavor of the flour.

Experiment by leaving out the salt from a bread recipe and compare the difference in the crust and color from when you add the salt to the same recipe. Record your observations.

Biblical Insights

Yeast

There's a contrast based on the fermentation process. Compare yeast in these verses.

During that time a crowd of many thousands had gathered. There were so many people that they were stepping on one another. Jesus spoke first to his disciples. "Be on your guard against the yeast of the Pharisees," he said. "They just pretend to be godly.

—Luke 12:1

Again he asked, "What can I compare God's kingdom to? It is like yeast that a woman used. She mixed it into 60 pounds of flour. The yeast worked its way all through the dough." — Luke 13:20

Yeast ferments and when it is allowed to ferment with grain or a long time, it produces liquor. When mixed in dough for bread, the yeast is only allowed to ferment for a limited amount of time and the baking cooks off the alcohol.

Write about the difference in the outcomes with yeast?

Compare bread ingredients with Jesus, the bread of life

Jesus called himself the Bread of Life (John 6:35). Compare the ingredients in bread with characteristics of Jesus. Look at the ingredients above and think about how each one reflects the character of Jesus. Then read the list below to check your thoughts.

Grain for the flour

Jesus replied, “The time has come for the Son of Man to receive glory. What I’m about to tell you is true. Unless a **grain of wheat** falls to the ground and dies, it remains only one seed. But if it dies, it produces many seeds. John 12:23-24.

Yeast or leavening

- Jesus is the Risen Lord. He is the one who causes us to rise to eternal life. Read Matthew 13:33 to see what else Jesus compared leavening to in the Bible.

Liquids

- Water reminds us that Jesus gives us the living water, the Holy Spirit of truth.
- Milk reflects prosperity. God promised to bring the Israelites to a land flowing with milk and honey.

Gluten or glue reflects the ability of Jesus to hold things together.

- Jesus stated that like a grain of wheat he must die and be buried to rise again and bear fruit. He is the risen one who saves us. He is the gluten that holds us together.
- Flour is also called the hero in the drama of bread making and truly he is our hero.

Honey/sweeteners

- Read Psalm 19:9-10 and see the reference to God’s word and honey. Sweeteners encourage growth in bread. Jesus encourages our growth.

Eggs

- Read Luke 11:12-13 about eggs being a good gift. Eggs add flavor and color to give bread more fullness. Jesus gives more fullness to our lives.

Oil

- Oil in the Bible represented anointing. Jesus is the anointed one (meaning of word Christ). Read Psalm 45:7 and the reference to the oil of joy. Oil tenderizes bread and certainly Jesus who died to forgive us tenderizes our hearts.

Salt

- Salt preserves the bread. Jesus the Bread of Life preserves us and asks us to be the salt of the earth, in Matthew 5:13.

Unit 3 Preparing to Bake

Measuring and Halving/Doubling Recipes

Preparing the oven and baking pans

Objectives

- To know how to measure dry and liquid ingredients
- To calculate how to divide a recipe in half or double it.

Baking includes math

- There's measuring and sometimes changing the recipe to make more or less.
- You can also figure out the calories of the bread and compute how many calories in each serving.
- You can also check out the cost of making the food item.

For dry ingredients, like the flour, measure with a dry measuring cup.

How to measure dry ingredients:

Scoop up the dry ingredient from the container and then level it off with a flat utensil, like the flat side of a knife (plastic or metal)

To measure liquid ingredients, use a liquid measuring cup that is clear (plastic or glass) so you can read the measurements.

Place it flat on a counter and look at it from the side, at eye level. Pour in the liquid until the fluid reaches the desired mark.

For measuring small amounts, such as a teaspoon or tablespoon, use measuring spoons.

- Again, with the dry ingredients, level off the contents with a flat utensil.
- For liquids, pour slowly into measuring spoon over a bowl, but not the mixing bowl, so excess liquid will not spill into mixture.

Some ingredients, like brown sugar, retain moisture, so as you fill the measuring cup, press or pack it down.

Check it out

Watch this video link on making cranberry macadamia mini-muffins to observe some of the tools and tips on baking: <https://www.youtube.com/watch?v=3KjjFz2PAfs>

Changing Recipes

To change the amount of dough or batter in a bread recipe you may want to half it or double it. So, use your math and figure out the new quantities for every ingredient. Here's a chart to fill in to see how to change the measurements. Note that 3 teaspoons equal 1 tablespoon.

Original	Half	Double	Triple
1 cup			
$\frac{3}{4}$ cup			
$\frac{2}{3}$ cup			
$\frac{1}{2}$ cup			
$\frac{1}{3}$ cup			
$\frac{1}{4}$ cup			
1 Tablespoon			
$\frac{1}{2}$ Tablespoon			
1 teaspoon			
$\frac{1}{2}$ teaspoon			
2 teaspoons			
2 eggs			

It may seem hard to half one egg, but it can be done. If you crack and open an egg and drop it in a container you can whisk it and then measure out half. One large egg equals 3 tablespoons or 50 grams. So one-half egg will be $\frac{1}{2}$ tablespoon. If you have a scale measure the egg, and then divide it until it measures half the weight.

Preparing to bake

- Before starting to cook, set out all your ingredients and utensils needed.
- Have the recipe where you can see it but not splatter it.
- If you need to crack open eggs and are not sure you'll do it without getting a little shell into the liquid, have a small bowl to break the eggs over. Mix them in that bowl (removing any shells) and then add to your other ingredients.
- If you plan to add chopped fruits, vegetables, or nuts to the dough/batter cut and prepare them before you start to make the batter. Chopping after starting the batter can cause the batter to become too stiff and the bread will be too dense. Don't add extra fruits or veggies as it can make the batter too heavy and make it hard to bake all the way through the loaf.
- Position oven racks in the center of the oven for best results.
- Preheat oven if the mix will be ready quickly. For breads that need to rise, preheat ten minutes before it will be ready to bake.
- If the recipe calls for it, flour the pan after greasing it. Sprinkle in flour and tap outside of pan to evenly coat the pan. Dump out any excess flour. These steps help the bread come out easily.
- Muffin cups should only be filled 2/3 high to allow the batter to rise.
- Have a toothpick or skewer handy to test the baked goods to be sure the inside is baked and not still gooey.
- Have a rack or place to cool the baked goods. They need to cool 5-10 minutes before being removed from the pans.

- Have hot mitts ready to put on to life out the hot pans when baking is completed.

Be ready to understand and follow directions

Understand the terms

- Beat—to mix with a fast and regular motion to make a mixture smooth.
- Blend—to mix one or two ingredients together thoroughly, such as sugar and butter. A pastry blender is a tool that helps you blend the ingredients.
- Dissolve the yeast—to add yeast to warm water and ingredients sit to combine. Dissolve yeast for ten minutes.
- Dust-to lightly coat a food with a powder, such as confectionary sugar.
- Egg wash—beaten egg with milk or water. Brush the top of bread or pastry with it to give it a glossy sheen and golden brown color.
- Fold in—to gently or lightly mix in with a gentle motion, over and under the mixture, usually done with a spatula.
- Knead—to work dough with pressing, stretching and folding motions with the heel of the hand, until dough is smooth and elastic. This develops the gluten.
- Mix— to stir ingredients together.
- Whip—to beat with a whisk or electric mixer. Whipping brings air into the mix.
- Zester— a small utensil used to peel threadlike strips off the outer layer of citrus fruit.

Diagnosing problems

Sometimes bread fails to rise, is wet inside , or falls apart. Here’s a list of some common problems with the reason and cure for it.

Quick bread problems

- Soggy bread with a sunken center happens when there's too much liquid in the batter. Next time decrease the liquid or add more flour.
- Coarse bread means there was too much fat, so decrease the oil or butter in the recipe.
- Doughy or underdone bread needs a longer cooking time. Check the bread with a toothpick. Make sure the pick is not sticky with dough attached. A few moist crumbs are okay. Some types of pans cause the bread to bake faster or slower.
- Quick bread has tunnels or holes in the bread happens when the batter is over mixed.
- Outside of bread is done but middle is raw happens more when the oven temperature is not correct. Use an oven thermometer to check the temperature. The temperature is probably too high.

Yeast bread problems

- Windowpane test to see if you kneaded the dough enough. Stretch a ball of dough to resemble a window pane. It should stretch without breaking. If it tears, then knead it a little longer.
- Punch in test checks to see if dough has risen enough. Poke the dough gently with one finger. If dough slowly pushes back out it is ready.
- If yeast bread doesn't rise well it could be due to one of these problems.
 - It might not have enough yeast.
 - It might have too much salt.
 - Dough may have risen for too long the yeast runs out of steam and doesn't rise well.

- Dough rose too little and didn't produce enough gas to rise properly.
- Pan may have been too large for the amount of dough.
- The temperature may have been too hot.
- The yeast may be too old.

Any bread or muffins additional problems

- Crust is overdone indicates one of a few possible problems. Bread may have been baked too long, so check it sooner next time. Or, you may have too much sugar in the recipe. Or the pan may have been too close to the top of the oven.
- Bread burnt on the bottom occurs when the pan is too close to the oven's bottom.

Keep records

Get your own recipe cards and box or a binder to keep your favorite recipes. If you're more digital, put them in a recipe folder on your computer or notebook. Add notes of how much you like it, tips on baking, and notes on ingredients to remember. Include a photo of the finished product.

Biblical Insights

Second purpose of bread in the Bible is for fellowship. We share in meals and eating together. Look up these scriptures. Describe who ate bread and what happened.

Acts 2:42

Genesis 18:1-8

Genesis 14:18-20

Ruth 2:14

John 6:1-14

Unit 4 Yeast Bread, Whole Wheat Bread

Objectives

- To understand your kitchen safety rules and procedures
- To make a whole wheat yeast bread
- To understand problems in making yeast bread
- To be able to find and successfully try other yeast bread recipes
- To learn about the relationship of bread making to how God helps us in our Christian life

Yeast breads can be tricky since they depend on the yeast to work well and humidity and altitude can affect the rising. This is an easy whole wheat bread and you can watch the full video at the link below. It's good to watch it being made before you make the bread. This video is about an hour long, so plan time to watch and study it.

PARENTS be sure to go over safety rules in the kitchen and any needed precautions with your stoves, knives, etc.

PARENTS supervise the baking from gathering ingredients until the baked product is out of the oven and cool.

<http://karenwhiting.com/breadmakingvideo>

Bread baking is an art and a science. The science comes from the yeast reaction and the chemical changes caused. Yeast is a living organism. It needs a moist environment and food to grow and thrive. The art comes with shaping it and the various ways you can change the recipe and serve it.

As in art, we must pay attention to the details. One of the most important steps in

dissolving the yeast and timing to be sure we let it dissolve for ten minutes. Also, be sure to have the water warm, not cold or too hot.

Honey of an Egg Whole Wheat Bread

1 package yeast
1 cup warm water
3 eggs
1 cup warm milk (microwave it one minute)
¼ cup honey
¼ cup oil
6 cups whole-wheat flour
3 teaspoons salt

Directions

1. Let yeast dissolve in water in a small bowl for ten minutes. Set a timer since this is important in helping the bread rise.
2. Stir eggs, milk, honey, and oil in a large bowl.
3. Add the yeast and water (after the ten minutes is done).
4. Add salt, and stir in flour one cup at a time. You might only need 5 ½ cups. If dough seems very stiff, set the remaining flour aside to use when you knead the dough. (Kneading is when you push and massage the dough to mix in air.)
5. Turn dough into a greased bowl, cover with a dishtowel, and set in a warm spot until doubled, one to two hours.
6. Check the dough, and make sure it has about doubled. It should be higher in the middle and twice as much as amount you put in the bowl. Gently press two fingers into the center of the dough and lift up our fingers. When you can still see the holes you made, the dough is ready.
7. Punch down the dough. This means to make a fist (grease your fist), then push down in the center of the mound of dough.
8. Dump the dough onto a floured board or tabletop, and knead. To knead, push the dough with the heel of your hand, roll dough, turn it a bit and push again. Keep doing this for five minutes. The bread will be softer and more elastic because of the kneading.

Test for elasticity:

There's a membrane or windowpane test to see if the dough is well kneaded. It tests to see how well the bubbles will expand in the baking to be sure the volume of the bread will be good. Take a golf ball size of the dough. Hold the dough between your thumbs and forefingers and stretch it into a rectangle. It forms a tiny window and the center is thin (see through). If the dough stretches without breaking, it is ready. If not, knead a few more minutes and test the dough again.

9. Place in a floured and greased loaf pan, or shape the bread into rolls.

For trinity rolls, pull off small hunks of dough and roll into balls about one inch in size. Put three balls into each section of a muffin tin. Note: This represents the three persons in one God, the trinity.

10. Let the dough sit again to rise a second time. Let it sit 10 minutes.

11. Bake at 350 for 50 to 60 minutes; bake rolls 35 to 40 minutes.

Observations

Evaluate what you made. This includes the appearance, taste, doneness, and notes on any changes for making it again. Changes might include less or more cooking time (ovens and altitude vary and may mean you need to change the oven temperature or length of baking time)

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	
Adaptions you'd like to try (adding raisins or other ingredients, etc..)	

Look up and try making other yeast breads.

Trouble shooting yeast bread problems

We discussed problems in making bread in an earlier unit, but let's examine again the

various reasons yeast breads do not turn out as well as we hope.

Bread did not rise	Liquids too hot, yeast too old/house may be too cold	Proof the yeast
Bread did not rise enough	Did not knead enough/properly	Be sure dough is elastic
Crumbly bread	Not kneaded enough	Practice kneading
Bread caved in	Dough over rose before baking	Only let dough double
Bread dense and gummy	Oven too hot	Lower oven temp

Shaping bread

Whole wheat bread and other breads can also be shaped, such as making a teddy bear or other animal shape before baking. Check out this link:

<https://www.youtube.com/watch?v=72xl8g2m2MM>

Biblical Insights

Steps in bread making and your life as a Christian

Consider the steps and thoughts and scriptures in the chart below to think about how God changes us. The steps resemble steps in making yeast bread. Discuss one or two each day.

Look up and write out each verse.

Step	Christian walk	Scripture
Gather ingredients	God creates us uniquely.	Psalm 139
Dissolve yeast	Softened by water of Holy Spirit, truth, with emotions that soften.	John 7:37
Mix smooth batter	We are stirred with discipline as wheat is thrashed.	Matthew 3:12
Wait for dough to rise	Wait on God's timing.	Psalm 37:7
Punch down risen dough	Air is punched out as our pride must be punched out, a broken spirit helps us grow	Psalm 34:18 James 1:2-3
Knead dough	Discipline of giving the dough a push to help it grow and become smooth and elastic. We need discipline and forgiveness to have elastic hearts.	Romans 5:3-4 Hebrews 12:11
Shape the bread	The bread maker, like a potter, shapes the dough as God shapes us	Romans 9:20-21
Bake bread	Hearts burning within, sacrifice on altar of warmth of being fired up.	Luke 24:30-32 Leviticus 6:21
Cool bread	This lets the bread structure set. God knows we need to rest and be calm to be effective.	Proverbs 15:18

Unit 5: Biscuits and Adapting Recipes

Objectives

- To make a basic biscuit dough and bake biscuits
- To use the dough to bake a different food than a basic biscuit
- Biblical insights regarding bread

This dough may be refrigerated for a week or ten days. Use it to make one biscuit or a whole batch. Use the dough as the basis for a variety of goodies:

Video to watch on making basic biscuit dough:
https://www.youtube.com/watch?v=qQhQp2O_M2Y

Preparation checklist

Watched video	
Read recipe	
Have all ingredients	
Have all utensils/tools needed	
Washed work surface	
Washed hands	
Camera/phone ready to take photos	

Basic biscuit dough

This great basic biscuit dough has a little history. It was used as early as the Civil War, in West Virginia. People teased that if the southern generals had used it they would have won the war. It was adapted later to use self-rising flour (leaven is already in with the flour)

Make it and store it for several days. If you keep it a week or more it will taste and smell like a sour dough biscuit because the yeast has fermented longer in the refrigerator.

Mona's Civil War Biscuits

Ingredients

¼ cup warm water	1 teaspoon baking soda
2 packages active dry yeast	½ cup shortening or vegetable oil
5 cups self-rising flour	2 cups buttermilk
1/3 cup sugar	

Tools/utensils needed

- Mixing bowl large enough to hold 8 cups with lid
- Mixing spoon
- Pastry blender or large fork
- Timer
- Measuring cups
- Biscuit cutter or glass with opening desired size to cut biscuits
- Rolling pin (you can press it with your hands or use a glass)

Directions

1. Sprinkle yeast into 1/4 cup warm water and set timer for ten minutes to let yeast dissolve.
2. Sift flour, soda, and sugar together in large bowl.
3. Blend in shortening.
4. When timer is done, add yeast mixture and buttermilk and mix well. Make sure flour at bottom of bowl is mixed in.
5. Cover bowl and store in refrigerator to use as needed.
6. When ready to bake, heat oven to 400°F.
7. Pull off enough dough for the number of biscuits needed. Cut biscuits out on lightly floured surface (don't twist the cutter). Put a little flour on your hands. Place biscuits on greased pan and bake until lightly browned, about 10 minutes (no need to wait for dough to rise).

Note: Handle dough as little as possible. Your hands warm the dough and that can impact rising in the oven.

Observations

To improve in coking or to be consistent if things go well, take time to evaluate what you made. This includes the appearance, taste, doneness, and notes on any changes for making it again. Changes might include less or more cooking time (ovens and altitude vary and may mean you need to change the oven temperature or length of baking time)

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Once you have made and refrigerated some of the dough consider ways to use the dough for something different.

Adapting the dough for other treats

You can vary the biscuits by adding other ingredients before rolling the dough out or filling dough that you roll out.

- Add herbs, cheese, or other ingredients to make specialty biscuits.
- Use the dough to make turnovers, cinnamon rolls, or other desserts.
- Use the dough with meat or chicken to make a main dish.

Watch these videos for ideas on using the dough for a variety of purposes.

- Make apple/fruit turnovers <https://www.youtube.com/watch?v=5WbkabVpBbw>
- Make maple bacon biscuits <https://www.youtube.com/watch?v=yq4QxtdVxvs>
- Make potpies <https://www.youtube.com/watch?v=oeb3MfezbAs&t=1s>

Choose what you will make

What I will make with the biscuit dough

What steps I need to take

Ingredients I need

Once you make your decisions, take out the dough, ingredients, and any tools needed and make your creation.

Observe the results

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Have fun experimenting more!

Biblical insights

The manna was like coriander seeds. It looked like sap from a tree. The people went around gathering it. Then they ground it up in a small mill they held in their hands. Or they crushed it in a stone bowl. They cooked it in a pot. Or they made loaves out of it. It tasted like something made with olive oil. —Numbers 11:7–8

How many different ways did the Israelites cook the manna?

Look up the definition of versatile

How was manna versatile and how is biscuit dough versatile?

Look at coriander seeds in the spice section of a grocery store. You might choose to buy some and add it to biscuit dough. Describe coriander seed

Play a manna game

Have an adult toss out a roll of pennies and see how long it takes to gather them.

If playing with others, divide number of coins by number of people and state how many each one can collect (the Israelites could only collect what they needed for one day except the day before the Sabbath)

Chat about the Israelite and collecting manna.

Read John 6:30-41

What did Jesus say about manna?

How is Jesus better than manna God sent from heaven?

How is Jesus, the Bread of Life, whom God sent from heaven, versatile? (list some things Jesus did and can still do?)

Unit 6 Garden Breads

Many times cooks add fresh fruit or vegetables as special ingredients in making breads.

These garden breads are usually quick breads made with a more liquid batter and baking soda or baking powder (or both). These are not kneaded.

Objectives

- To understand the difference in making quick breads
- To learn to incorporate garden fruits and vegetables in breads
- Biblical insights into God's provisions

Quick breads

Quick breads are ones made without yeast, so they take less time since the dough does not need to rise or be kneaded before baking it. Quick breads are full of flavor, but need to be eaten rather quickly because they have a shorter shelf life. They are easy to make since they don't use yeast and are not dependent on humidity and room temperature.

They don't require rising or kneading. Simply mix and bake!

Watch a video on making pumpkin bread at

https://www.youtube.com/watch?v=aN_9M-qVZ0o&t=18s

Watch a video on making banana chocolate chip bread at

<https://www.youtube.com/watch?v=UiWDFtQIzdc>

Ideas and tips for quick breads

- Try baking quick breads in empty 15-ounce cans to have round slices of bread for tea parties and social events. Lightly spray the inside of the metal can with a cooking spray. Fill about ½ or a little more and bake for 40-60 minutes, until toothpick inserted into bread comes out clean.
- Quick breads slice better after they cool.
- Note: If you live in a high altitude, decrease the baking powder by one-fourth.
- One easy way to prepare the batter is to combine all the dry ingredients in one bowl and the wet ingredients in another bowl and then gently stir the wet

ingredients into the dry ingredients. Include the sugar in the liquid ingredients unless recipe specifies to add it to the dry ingredients, because sugar absorbs the liquid ingredients and will reduce the amount of gluten developing when the liquid is added to the flour to let it wait to develop more in the oven.

- Six basic ingredients of quick breads are flour, baking powder, salt, eggs, milk, and oil.
- Savory quick breads use fewer sweet ingredients and more savory ones like olives, bacon, or sundried tomatoes and basil.
- Sweet quick breads usually contain fruit like bananas, mango, or pumpkin.
- Before adding nuts, be sure to toast or roast them.

Basic quick bread recipe (before adding desired garden ingredients)

2 ¼ cup all-purpose flour

1 TBSP baking powder

½ teaspoon salt

3 large eggs

1½ cups milk

6 TBSP oil

¾ cup white sugar

¾ cup packed brown sugar

1 teaspoon vanilla

Directions

Preheat oven to 350 degrees

1. Combine flour, salt, and baking powder. Add any spices desired (such as cinnamon, allspice, nutmeg)
2. In separate bowl combine the remaining ingredients (liquids and sugars).
3. Pour liquids into dry ingredients and stir until flour is absorbed. Avoid over stirring or dough will be tough.
4. Add the flavorful ingredient. Fold in 1-1and1/4 cup of any chopped or mashed fruits such as bananas, cherries, or zucchini.
5. Pour batter into pan and bake for 45 minutes or until toothpick inserted into center comes out clean.

Basic savory bread

Use above recipe but omit sugar and vanilla. This can be stirred a little more than the sweet batter.

Banana bread is a favorite and great way to use ripe over-ripped bananas. One of the best recipes is from the Joy of Cooking cookbook. Here's a link to the recipe

<http://onewomanwriting.com/the-joy-of-cooking-banana-bread/>

Note: If you only have yellow bananas, you can bake them until the skin turns brown. Heat them on a baking sheet (also called cookie sheet or pan) at 250 degrees for 15-20 minutes (longer if banana skins don't blacken). This works well for bread, but will not be great for banana pudding or pie.

Another method to ripen bananas

Poke bananas all over with a fork and then microwave them for thirty seconds at a time until they are as soft as desired. They will be mashable, but less sweet than ripened in the oven or naturally in the air.

Evaluate

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Storing quick bread

Store bread in a plastic container with a paper towel lining the bottom. If you want to keep them longer than four days, freeze them in resealable plastic bags. Let them thaw at room temperature. If desired, warm them in an oven or in the microwave. You can freeze them for up to three months.

Describe the quick bread you made

What do you like about making quick breads?

What type of quick bread would you like to make next time?

Biblical Insights

Jesus is the Bread of Life. Like grain and bread are essential to us, Jesus is essential too. .

A person can survive a long time on only bread and water. Bread provides many nutrients such as dietary fibers, vitamins, and minerals. Complex carbohydrates found in bread and other grain-based foods are a source of energy for the body, brain, and nervous system.

Bread was so important in ancient times that it was used as money (currency) in Egypt³.

Read Exodus 16:14-15, 31 and 1 Kings 19:6 How did God provide quick breads?

How is Jesus the Bread of Life, similar to a quick bread, but even better?

One bushel of wheat is enough to make 1000 slices of bread. How many days would it take you to eat that many slices if you ate 2 sandwiches a day?

How is Jesus enough for all of us?

³ <http://www.dimpflmeierbakery.com/fun-facts-about-bread/>

Unit 7. Around the world breads

Bread is a common food around the globe, although many cultures have different varieties and may use different grains. Most countries have a specific bread that is part of their heritage. We gain more understanding of people and their culture when we try the breads of their country.

Objectives

- To identify several types of bread from around the world
- To learn about bread of one's own heritage
- To make a flatbread
- To make one other type of bread from around the world
- Biblical insights into Jesus, bread for all people

Bread in some form is familiar in every culture. You might be familiar with some like long Italian and French breads, Indian rice cakes, Greek pita bread, Native American corn bread, Irish soda bread, German rye bread, Scottish scones, Indian appan hoppes and Naan bread, Mexican tortillas, Jewish bagels and challah, various flatbreads from Jamaica, Tibet, the middle east and other countries, and many more. It's fun to feast on many types of bread. It's a great reminder that Jesus the Bread of Life came for all people, everywhere.

Many countries also have special holiday breads made at Easter and Christmas. These breads often symbolize God with breads like Three Kings bread, crown shapes, and stollen. They are usually richer to reflect celebrations where people used their more expensive ingredients and took more time to prepare the food.

Check your heritage and write list any bread from those cultures. Is there any

special holiday bread or significance of the bread types you found?

Go to a bakery and check out breads from around the world. Take a few photos if that's permissible. Describe what you see.

See what breads you can identify and the country (countries) of their origin

A.



B.



C.



D.



E.



F.



G.



H.



I.



J.



K.



L.



History and Bread

Check the breads made in the countries you are studying in history. See if friends are studying other countries. If so, consider have a bread party to share a little about those countries and their breads.

Write about what you discovered

Barley flatbread

Watch this video on making barley flatbread

<https://www.youtube.com/watch?v=w-9SZABoSgs>

Try making a flatbread. These are often unleavened and were easy to make over hot coals from a cooking fire.

Barley Flatbread Recipe

Use this flatbread to add toppings for an individual pizza or break into pieces and dip in hummus or oil and seasonings.

Ingredients

1 cup barley flour
½ cup water
1 tablespoon honey
½ teaspoon salt

Directions

1. Mix ingredients. Dough will be sticky.
2. Dump onto a floured surface and knead a minute or two, adding more flour to make dough smooth and less sticky.
3. Pull off a piece of dough and roll into a two-inch ball. Flatten and roll out to a five-inch circle.
4. Cook in a little olive oil in a frying pan for about two minutes. Turn bread over and cook another 1-3 minutes until it starts to brown.

Evaluate

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Nutrition and facts

When making bread with an ingredient you have not used before, check out facts on it and nutrition information with an online search. Check sources to verify facts.

Barley Facts

Here are a few facts about barley. See what else you can find out and add.

- It's high in fiber, carbs, and vitamins, proteins, and fatty oils.
- Recently scientists chose roasted barley as the best food to ingest for imaging contrast for seeing what is happening in the throat and gastrointestinal tract
- Used to make tea, bread, and beer.
- Barley remained the staple food of the poor since earliest times, as early as 10,000 years ago.
- Barley lowers blood sugar, cholesterol, and blood pressure.
- It's helpful in weight loss because it stays in stomach longer to leave person feeling full.
- Some people use it to gain strength, prevent cancer, and to treat bronchitis.
- Boiled, barley is used as treatment for boils.
- The Bible calls Palestine a land of wheat, and barley, figs and vines.
- Barley is one of the top produced grains in the world (usually about the fourth after corn, wheat, and rice).
- It also makes great food for horses, cows, and other animals. They can eat it as hay or it can be processed into the food sold for these animals.

Sources: <https://www.statista.com/statistics/263977/world-grain-production-by-type/>

<https://draxe.com/barley-nutrition/>

<https://www.sciencedirect.com/science/article/pii/S014296121830351X>

<https://medicalxpress.com/news/2018-06-grain-ideal-safe-contrast-agent.html>

<https://www.webmd.com/vitamins/ai/ingredientmono-799/barley>

Mock Naan flatbread from Pizza Dough

Use your own pizza dough recipe or buy refrigerated pizza dough to make a type of Naan. That's an Indian flatbread. Simply pull off enough dough to form a ball. Roll or press it into a flat circle and fry it in a tablespoon of oil or spray with oil and cook in air fryer.

Evaluate

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Try making bread from your heritage

Look up recipes online for your cultural heritage and try making one.

The book, *The Gift of Bread* I wrote includes a few: Irish bread, Scottish cones, southern cornbread, Yankee cornbread, three king's bread for Epiphany (celebrating the arrival of the magi to see baby Jesus).

List breads from your heritage. You may have quite a few if you have family members from many countries. Then try baking one.

Evaluate

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Relate geography to bread

Check out breads made in the places you study in history and geography. See what ingredients people grew from the regions. How did their land make a difference in the bread they cooked?

See if friends are studying other countries or regions of the world. If so, consider having a bread feast to celebrate the various cultures.

Biblical Insights

Look up these scriptures about bread and write your thoughts about each one.

1 Corinthians 10:17

Exodus 29:1-4

Leviticus 7:14

John 6:27 Why did Jesus say that He is the Bread of Life?

Look up these verses to understand why the Israelites ate unleavened bread

Read Exodus 12:17, 27. Why did God want them to celebrate the Passover and feast of unleavened bread?

1 Corinthians 5:7-8 How does God compare Christians to unleavened bread?

Unit 8. Refrigerated dough

We can make a jiffy and tasty treat from refrigerated dough very fast. Some days we don't have lots of time to cook and may want to use store bought dough. This can be crescent rolls, pizza dough, or biscuits. The dough is like working with play dough to make anything we can dream up.

Objectives

- Understand versatile uses of refrigerated breads
- Create your own versions of easy to make bread treats
- Check out biblical insights into Jesus the Bread of Life who is always ready

Refrigeration slows down the fermentation process (action of the yeast). When we take dough out, it's ready to go in the oven quickly. You can use the basic biscuit dough from unit five or buy refrigerated dough, such as biscuit or pizza dough. The cooking process will be the same. Once you try making a few suggested treats, you can come up with your own ideas to try to make.

Pizza dough is thicker and chewier than dough used to make rolls and biscuits. It's denser than biscuit dough and able to support the weight heavier toppings like cheese and sauces. It's also versatile and can be used to make bread sticks, garlic knots, and other tasty treats that are chewier. If desired, look up recipes for pizza dough to make your own.

Remember to take photos and add them to your recipe book.

Video link: <https://www.youtube.com/watch?v=t2tsxocF6WQ&t=3s>

Garlic knots

Ingredients

Pizza dough
2 tablespoons minced garlic
3 tablespoons olive oil
Kosher salt
Parmesan cheese

Directions

1. Heat air fryer to 400 degrees.
2. Mix olive oil and garlic in a bowl.
3. Roll out pizza dough and cut into strips about 1 inch by 5 inches.
4. Gently tie each strip into a knot.
5. Dip each knot into olive oil and garlic mixture.
6. Drop knots into air fryer basket and cook 2 minutes. If needed, cook additional 2 minutes.

Makes about 3 dozen pretzel bites. Serve with favorite sauce or mustard.

Crescent dough is soft and rises well. It's also sweeter and great for making desserts.

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Crescent roll Portuguese Masaladas

The Portuguese make a wonderful treat called masaladas. They are like doughnut holes with a sugar coating. You can make similar ones with biscuit or crescent dough. The word masalada means poorly cooked and that referred to the crispy outside and soft mushier inside.

You can cook them in an air fryer or a small one-quart pan with hot oil. Always be safe around hot oil as it can spit or spill and burn your skin. Use potholder mitts. Make sure an adult is watching you as you cook.

Masaladas

Ingredients

Oil

Refrigerated biscuit or crescent dough

Sugar (mix in colored, decorative sugar to make it look more festive)

Directions

1. Pull off dough and form into small balls (about one inch).
2. Use tongs or a spoon to drop balls into hot oil. Cook until browned.
3. Remove from oil with tongs and drain.
4. Roll in sugar.

Evaluate your masaladas

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Check it out

There are hundreds of ways to use refrigerated dough whether it is bought, or you make the dough.

Go to [pinterest.com](https://www.pinterest.com) and search for recipes uses refrigerated dough and you'll find all types to try. Put in specific types of dough, like pizza dough, and you'll find recipes to use whatever dough you like.

List a recipe that interest you that you found or thought of yourself

Choose one and list the ingredients needed to make it

See what ingredients you have and what you need to buy. Make your shopping list

Once you have everything needed, make it and evaluate how it turned out.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Biblical insights

The Israelites made unleavened bread before leaving Egypt. This was made quickly and easy to carry and keep the dough since it contained no yeast that would ferment. God wanted them to go quickly

These refrigerated doughs are easy and fast to use. They also remind us that God provided bread quickly. He was already prepared to feed huge crowds.

Read 2 Kings 4: 42-44, John 6:1-14, and Mark 8:1-10. How was bread provided fast?

Read John 6: 32-41. What did Jesus say was more important than bread we eat?

Read Matthew 14:14. Why did Jesus want to feed the people?

Without time or money, Jesus reacted FAST.

Felt compassion.

Accepted the available resources

Showed faith

Trusted and Thanked His Father.

He knew that a good meal revives us. He gives us fresh bread, not burnt, in exchange for the little we willingly give.

When a crowd followed Jesus fed them. He felt compassion for the people, so He taught them and healed the sick. Then He fed them. He simply blessed bread, broke it, and the few fish and five barley loaves a little boy gave Jesus fed 5000 men plus women and children. It's in all four gospels. Read about it in Matthew 14:13-21, Mark 6: 32-44, Luke 9:11-17, or John 6:1-14.

What happened?

Who gave Jesus the food?

What did Jesus do before the disciples passed out the bread?

When He went ashore, He saw a large crowd, and felt compassion for them and healed their sick. Matthew 14:14

What is compassion (Look it up in the dictionary)? Have you ever cared enough to help the hungry or sick? If so, what did you do?

Unit 9 Bread Sticks

Bread sticks come in a variety of lengths and styles, from soft and chewy to crispy and crusty on the outside but soft on the insides. They may be plain or seasoned. They can be dipped in oil and herbs or a sauce. The original bread sticks, called Grissini, appeared around the 17th century in Italy. The earliest found written record goes back to 1643 and a reference to *pane barotellatus*.⁴ *Barot* means stick. They are also called dipping sticks.

Objectives

- Make bread sticks
- Make topping/dipping sauces for bread sticks
- Third purpose of bread in the Bible

Making and shaping breadsticks

Stick shaped rolls are tasty treats and easy to make. Many breadsticks are usually made with yeast and might need to rise. Some can be made with yeast and no rising before they are in the oven. Other recipes use baking powder and thus all the rising happens in the oven. The dough can be rolled into a rectangle and cut, or balls of dough can be rolled by hand to make individual bread sticks. Breadsticks can be dipped in sauces or eaten plain.

The common ingredients in bread sticks are flour, salt, water, yeast, and oil. Some bread sticks need a second baking to be completely dry. These are crispier.

One variation, biscotti means baked twice, is very dry and often served with coffee. The dry sticks are dipped in the hot liquid to soften them.

Video link: <https://www.youtube.com/watch?v=en8YOijlhhs>

⁴ <http://thenibble.com/reviews/main/breadstuffs/breadstick-history.asp>

Easy No-rise Breadsticks without yeast

Ingredients

1 ¼ cup self-rising flour

1 cup plain yogurt

Directions

1. Stir the flour and yogurt in a bowl until well combined.
2. Roll into a rectangle and slice into long sticks.
Or, pull off a ball of dough and roll by hand into a bread stick.
3. Brush with topping.
4. Bake at 425 until lightly browned, about 5 minutes. Turn over halfway through cooking to evenly brown.

Topping 1

Combine two tablespoons melted butter with Italian seasonings and ¼ cup grated cheese.

Brush on breadsticks before cooking.

Topping 2

Combine 2 tablespoons olive oil and 1 teaspoon desired herbs (basil, oregano) or minced garlic. Brush on bread sticks.

Alternative cooking

Try baking the bread sticks in an air fryer for 2-4 minutes at 400 degrees. The sticks will have to be cut the length of the air fryer basket. These will be a bit crispier on the outside.

Outdoor cooking

Wrap the bread dough around a clean stick and cook over hot coals.

Evaluate

As with any new recipe, evaluate the results and make notes of changes to try.

Doneness (cooked through, not burnt, etc.)	
Taste	
Appearance (outside color, inside texture)	
Changes to make next time	

Biblical insights

Bread sticks are easy to make for a crowd. After Jesus fed the crowd, He spoke about filling their real need. Jesus used the time after the people ate to teach them about the most important reason for bread in the Bible.

Read John 6:29-59

What did Jesus call Himself again?

What did Jesus say people needed?

Jesus gave people special bread at the Last Supper. Read about that in Matthew 26:26-29.

What did Jesus call this: (begins with a c; check the answer in verse 28)

The third and most important reason for bread in the Bible is the relationship between God and His followers.

You shall set the bread of the Presence on the table before Me at all times. Exodus 25:30

NASB

Read more about the Bread of Presence in Exodus 25:23-30. It represented God's willingness to be with us and share food with us. In the New Testament Christ when Jesus blessed and shared bread and wine he called it the New Covenant.

Read more about this in 1 Corinthians 11:24-26.

Write about your relationship with Jesus and what the Covenant means to you.

Unit 10 Muffins

Muffins are quick breads baked in individual molds, called muffin tins. The word muffin comes from either the German word “muffe” or the French word “mouffet.” Both words mean soft bread. Like any quick bread, they contain no yeast, so there’s no waiting for dough to rise before baking.

Objectives

- Make muffins
- Understand how to create variations of muffins
- Understand difference between sweet and savory muffins
- Biblical insights into harvest and grain storage

Combining ingredients

In making muffins, the batter is only stirred lightly. The dry ingredients are mixed in one bowl and the wet ingredients are mixed in a smaller bowl. Then the wet ingredients are added to the dry. A variety of ingredients can be added to the basic batter. That includes fruits, nuts, cheeses, and savory herbs or even meats. Savory muffins also include cornbread muffins made from cornmeal and flour. Some cooks add the extra ingredients to the dry while others add the additional ingredients at the end. Adding them to the dry ingredients coats them with flour to prevent the berries, nuts, or other stir-ins from sinking to the bottom of the muffin.

Video link: <https://www.youtube.com/watch?v=-yXbYyfUIqs>

Facts

- Many muffins also contain spices added to the dry ingredients. Grinding these fresh will give the muffins more flavor than using ground spices in a jar. Stored

spices can become stale and lose flavor.

- Sweeter muffins contain more calories plus lots of carbs and fats. Healthier ones can be made with substituting healthier ingredients like oatmeal or whole wheat flours for white flour, and yogurt for some of the fat and liquid.
- Muffins are similar to cupcakes, but have round, flatter tops, and are not frosted. Sometimes they are topped with a brush of butter and sugar.
- Muffins rise in the oven and should have uniform rounded tops, with no cracks. The outside should be evenly golden brown and the inside texture moist and tender. The inside color should turn out slightly yellow. On average, a medium muffin contains 320 calories.
- The children's rhyme *Do you know the Muffin Man* is based tells the truth about homes on Drury Lane where a man delivered muffins.
- Four states have a state muffin:
 - Massachusetts, corn muffin
 - Minnesota and Washington, blueberry
 - New York, apple

Basic muffin batter

Ingredients

- 2 cups white flour
- 1 tablespoon baking powder
- 1/2 teaspoon salt
- 2 tablespoons sugar (up to 1/2 cup if you prefer sweeter muffins)
- 1 egg, slightly beaten
- 1 cup milk
- 1/4 cup melted butter
- Additional ingredient to make specific muffins as listed below

Directions

1. Preheat the oven to 375°F.
2. Grease muffin pans or line them with paper liners.
3. Mix the flour, baking powder, salt, and sugar in a large bowl.
4. In a separate bowl, mix the egg, milk, and melted butter, and then add to dry ingredients
5. Add any extra ingredients desired, like nuts, fruits, etc... Stir only enough to dampen the flour; the batter should not be smooth.
6. Spoon into the muffin pans, filling each cup about two-thirds full. Bake for about 20 to 25 minutes each.

Variations

Adding different ingredients is an easy way to make a variety of muffins.

Blueberry muffins

Use 1/2 cup sugar instead of 2 tablespoons. Keep out 1/4 cup of the flour. Use it to coat 1 cup of blueberries (covering the berries with the flour), and stir them gently into the batter last.

Whole-wheat muffins

Replace the 2 cups flour with 3/4 cup whole-wheat flour and 1 cup white flour.

Nut Muffins.

Use 1/4 cup sugar. Toast 1/2 cup chopped nuts (pecans, walnuts, or other favorite) until lightly browned (about 10 minutes in toaster oven). Add nuts to the batter. After filling the cups, sprinkle with sugar, cinnamon, and more chopped nuts.

Dried cranberry or raisin muffins.

oak 1/2 cup chopped pitted dates or 1/3 cup raisins in warm water for ten minutes to soften them. Drain and add to the batter.

Maple bacon muffins

Crispy fry and then crumble 3 strips bacon. Soak the crumbled bacon in a few tablespoons of maple syrup. Add to batter.

Biblical Insights

Then Jesus said to his disciples, “The harvest is huge. But there are only a few workers.

Matthew 9:37

Harvest times are important, and lack of food is a great problem in many countries, especially in times of drought that brings on a famine. In America, we have plenty of food.

Muffins are fancier than sliced bread and special treats when they are made with fruits and veggies. King David used special little cakes to celebrate a great victory. Read about it in 2 Samuel 6:17-19.

What happened?

What do you do with muffins you make?

Jesus spoke about a different type of harvest in Matthew 9. He spoke about the harvesting of souls, of the need to share about Jesus and bring people into God’s kingdom.

What do you do to share about Jesus?

Storing Grain and Preparing for the Future

Joseph stored up huge amounts of grain. There was as much of it as sand by the sea.

There was so much grain it couldn’t be measured. So Joseph stopped keeping records of it.—Genesis 41:49

In the old Testament Joseph, son of Jacob ended up in Egypt. He was sold and brought there as a slave, but God opened doors and Joseph became a great leader, second to Pharaoh. He supervised the storage of grain in Egypt.

The world suffered from a great famine, but Joseph wisely prepared for the hard time and had enough grain stored to feed the people. He wisely stored the grain in separate locations so insects and disease could not ruin it all. The grain was probably sealed in clay jars to protect it. We use freezers and canisters to store our flour and cereals.

Read Genesis 41:35-49.

What did Joseph do?

How do you save for the future and for possible hard times?

Unit 11 Centerpieces

Bread looks so great, that the loaves, muffins, or bread sticks can be used to decorate the **center of the table**. Edible arrangements are fun and good conversation starters.

Objectives

- Practice hospitality
- Create centerpieces
- Gift people with beautiful bread creations
- Biblical insights into hospitality



Add beauty to a table by displaying breads in a centerpiece.

1. Shape and display bread on a platter such as a braided bread wreath or other shape
- Before baking, place rolls close together in a wreath shape.

- Make a dough you can braid (check out Christmas bread in The Gift of Bread). Make long snakes , braid them, and shape into a wreath, open heart, snail, or other desired shape. Bake.

- Make teddy bear bread (or other special shape) and display on a pretty platter. Here's a link

<https://www.youtube.com/watch?v=72xl8g2m2MM>



- Bake on parchment paper to make it easier to transfer to a platter.

2. Use bread sticks and pretzels on skewers to create an arrangement



Bake them on the skewers. Add colored salt to pretzels to make them more festive. Arrange bread sticks and pretzels on skewers in a vase. Bake them on the skewers. Add colored salt to pretzels to make them more festive.

- Place a piece of Styrofoam or florist foam in bottom of vase.
- Push end of skewers into foam.
- Add seasonal decorations, such as colored leaves for autumn, blossoms for spring, paper hearts on skewers, or ornaments for Christmas. Use wire to attach the decorations to skewers and stick them into the foam base.
- Add stalks of artificial or real wheat.
- Decorate the outside of vase if desired, with ribbon or artificial grapes.

- Check out some basics on flower arranging, like balance, proportion, and color.
<https://floranext.com/flower-arranging-101-centerpiece-design-basics>
- As you place your bread sticks in the vase, start on the outside and fill in toward the center. Add more delicate pieces later (such as thin wheat stalks).

3. Make a muffin bouquet. Check out this video on how to make them:

<https://chispamagazine.com/spiritual-growth/cynthia-chats-karen-whiting-gift-bread/>

Use a foam ball and cut off a bit of the bottom so it will sit flat. Attach it to a paper plate with straight pins. Then use toothpicks to hold muffins on the ball. Add the muffins starting at the bottom. Add other decorations like artificial flowers that are on picks or wire them onto picks. Experiment with different size balls. Use a larger ball for full size muffins and a smaller one for mini-muffins.



Store the muffin bouquets in a clear plastic bowl with the lid as the base.

Evaluate and capture the beauty

Take photos of your centerpieces and add them to a scrapbook or digital folder.

Make notes of what works and what problems you had. Check out flea markets and boutique shops for unusual vases or platters.

Hospitality and Bread

Serving bread with afternoon tea, as a healthier snack for friends, or with a meal is a great way to show hospitality.

- Be polite.
- Serve your guest.
- Smile and listen.
- Be an encourager and pass on true compliments.
- Have a clean area for entertaining your guest.
- Make the table or snack area pretty and set it properly.
- Add a bread centerpiece for decoration.
- Make it fun, such as an indoor or outdoor picnic or with games or entertainment.
- Take a photo to remember the occasion, and make copies for your guests.
- Prepare food ahead when possible so you can spend your time with your guest.

Gifting Bread

Bread makes a great gift, whether a single loaf or a batch of muffins.

- Find out if the recipient has any dietary needs.
- Make it fresh and gift the person the same day you bake if possible.
- You can freeze bread to have handy in case you want to respond to a need that arises.
- Place it in a plastic food storage bag or wrap with plastic wrap.
- Add a friendly note
- Present it with a smile

Biblical Insights

So Abraham hurried into the tent to Sarah. “Quick!” he said. “Get about 36 pounds of the finest flour. Prepare it and bake some bread.”— Genesis 18:6

In biblical times, bread served as a vital sign of hospitality. Living in a desert meant Abraham saw few strangers, so when he looked up and saw the unexpected heavenly visitors arriving, he asked them to stay and eat. He also offered to have water brought so they could wash their feet. Abraham showed hospitality without asking the visitors why they came or where they came from.

Check out scriptures on hospitality

1 Peter 4:8,9

Hebrews 13:1,2

Romans 12:9-13

1 Timothy 5:10

Job 31:32

Acts 28:2

Luke 6:31 (this is called The Golden rule)

What do those verses remind you to do when you entertain a guest?

What qualities do you need to work on?

Read Luke 10:38-42 and write how each of these people did or did not show hospitality.

Unit 12 Business

Once you become a good baker, you might want to use your skills to earn some money.

It's great to develop entrepreneurial skills. Skills you will develop

- Marketing
- Money skills of tracking costs and earnings (income and expenses)
- Interpersonal skills of working with customers
- Organizational skills
- Record keeping skills

Objectives

- Understand a business
- Figure out cost of baking bread or muffins
- Learn how to make business decisions
- Biblical insights into business
- Evaluating reasons for starting a business and startup costs

Some real stories

Check out real kids who used their baking skills to make money. Each story shows a different purpose and tells what happened.

Joseph's Muffin Bouquets

Joseph knew his family's struggled with finances and they chose to not buy Christmas gifts. He wanted to help and also earn money for a few items he wanted. He made a list of what he could do to make money and thought about his grandma's muffin bouquets she made for fun. He thought he could sell some for Christmas centerpieces.

He tried some recipes with his mom and chose a few favorites. He found a clear plastic bowl and lid he could use to hold the centerpieces. He would place the bouquets on the lids and use the bowl to cover the bouquet. He found decorations at a dollar store and priced supplies for baking.

Joseph made a flyer and passed it out to people in his mom's choir, home school families, and neighbors. Since his backyard was by a well-traveled road, he made posters and planned to set up a little stand. He took orders and made an extra dozen to try to sell at the stand.

In all, he sold about three dozen bouquets for \$20 each. His cost was about \$5 per bouquet. He also paid his younger siblings a little bit for helping at the stand.

He tried to expand the idea to other holidays but did not sell that many, even for Father's Day. He decided he might just make it a once a year specialty business. He's willing to do it again for special events, such as any local kid business days, or if he needs to make money for a specific purpose.

Rebecca's Zucchini Bread Stand

Rebecca's family had a huge crop of zucchini. They decided to make bread and muffins and set up a stand they would open at lunch time since many people walked by their front door at that time of day. They sold out the first day. They made more and kept selling. Friends asked if they could join in and sell drinks. They agreed.

It took lots of time to bake and sell, so they changed their plans and choose three days a week to sell and posted a sign. Those days went fine. They also offered free zucchini to shoppers. Of course, it ended when autumn arrived, and the plants stopped

producing.

They decided it was a great summer business that lasted about one month, and they made good use of the vegetables they grew. They could plan on it every summer and maybe even plant more zucchini.

Carson's Cake Business

Carson needed to raise funds to go on a mission trip. She thought about what she could do from home and liked doing, plus worked with her homeschooling and competitive swimming schedule. She decided to make cakes and chose her favorite lemon blueberry plus snickerdoodle and pound cakes.

She made flyers and passed them out at church, her homeschool group, and friends. Carson realized she did best for holidays like Mother's Day, Father's Day, and Easter. She made enough for the mission trip and continued with the business, so she could continue doing mission trips every year. It's been three years and three mission trips.

If someone sends her a recipe Carson tries it. She added chocolate peanut butter after testing that recipe. She once made more than 100 cupcakes for a party but felt it was too time consuming compared to making cake. She added gluten free since some of her family members have special diets.

Carson normally uses money from sales to cover the cost of the baking ingredients. One year an aunt paid for all the ingredients to support her mission trip. She takes orders any time and continues to save for future trips, but really cranks up her business after Christmas.

Decision making

Read those three stories again and look at the decisions made and reasons for the business. Then consider what you want to do.

What was the reason for the business for each person

Joseph

Rebecca

Carson

All those reasons are good. There are many reasons why someone starts a business. It's also good to evaluate the business to decide if the time and money earned it worth it. It's good to decide if it should be a seasonal business, part time, or full time. As students, you already have full time work (school), so this is not the time for a fulltime business. What did these three entrepreneurs discover?

Joseph

Rebecca

Carson

You might want to try your idea out, just sell bread products for a specific goal, or start a small business. Choose your reason to start a business. Set goals of how much you want to earn.

Costs

Consider what your product costs and what you might be able to sell it for to make money.

Check out the cost of the ingredients and how much you can make. What does each unit cost (divide total cost by number of items made)?

Overhead would be any expenses such as renting a store or kitchen, gas for deliveries, and electricity, water, and other utilities needed. For you it may imply mean the gas cost. In Joseph's case, he did want to help his family and decided to give his parents 30% of what he made (after costs of ingredients) to help cover overhead and give them money to help with bills.

Plans

You need to plan ahead and choose the time to launch the business or set up a one-day bread stand.

- Make sure you have time open on your calendar.
- Clear the idea with your family, especially time and space for baking
- Know where you can sell your products and if you need permission.
- Set aside time to create your ads or marketing materials. This can be posters,

flyers, or online notices.

- Think of who would buy the product and how to reach them.
- For baked good, check to see if you need to apply to start a cottage industry or any other legal requirements in your state.
- List the benefits of your business. How will it help people or the environment? What will you learn?
- Decide what you will do with money earned. What will you put back into the business, tithe, save, and spent?
- Decide how to keep records of your expenses and income plus hours working. Figure out how much you earn per hour.
- Review the stories again and see how each one evaluated their business and made changes. Set aside a time to evaluate your business and decide if you want to continue, make changes, or simply stop the business.

Choose what to sell

- Muffin bouquets
- Loaves of bread
- Other baked goods, like cupcakes
- Shaped breads, like teddy bear bread
- Your favorite foods

Scout out opportunities

- Check with your local chamber of commerce to see if they have or might consider holding a kid's business day where you could sell your products.
- Check with your local home school group to see if it's possible to schedule a

special business day where you and your friends can sell products and advertise your business.

- Check with your church/youth group about possibly holding a kid's business day and giving a portion of the proceeds to the church or other charity.

Keep records

- Record time spent on the business.
- Keep track of expenses and income.
- Keep records of how you advertised and what worked or did not work.
- Journal about your experience and what happened. Include how it was to interact with customers, the time you spent, unexpected surprises, and how you felt when you made money.

Evaluate

Always take time to consider how the business is going. Make your decision of what to sell if you decide to start a business. Then set a time to review how things went and how much money you made or lost. Also consider how much work it took and how much you enjoyed doing it. That will help you decide what to do next.

Biblical Insights

Count the cost

“Suppose one of you wants to build a tower. Won't you sit down first and figure out how much it will cost? Then you will see whether you have enough money to finish it. —Luke

14:28

Why is it important to plan and know what a business will cost in money and time?

What have you learned about a business?

She considers a field and buys it. She uses some of the money she earns to plant a vineyard. —Proverbs 31:16

She makes linen clothes and sells them. She supplies belts to the traders. —Proverbs 31:24

The above woman is called a worthy woman. How does she use her time and money?

Scripture says, “Do not stop an ox from eating while it helps separate the grain from the straw.” ([Deuteronomy 25:4](#)) Scripture also says, “Workers are worthy of their pay.” —1 Timothy 5:18

Even when we were with you, we gave you a rule. We said, “Anyone who won’t work shouldn’t be allowed to eat.”— 2 Thessalonians 3:10

Why is developing talents and choosing a career important?

What career do you think you would like? What will you need to study to succeed in that career?

*Each of them should eat and drink. People should be satisfied with all their **hard work**.*

That is God's gift to them. —Ecclesiastes 3:13

How is the ability to work and earn money a gift? How is working hard at studies also a gift?

Read the Lord's prayer in Matthew 6:9-13

What does it mean by daily bread?

If Jesus is the bread of life, are we also asking for Jesus in this prayer?

Read John 6:35-40

Why did Jesus come? What was His purpose as the Bread of Life?

Why is it important to seek God's purpose?

Jesus said to them, "What I'm about to tell you is true. You must eat the Son of Man's body and drink his blood. If you don't, you have no life in you.— John 6:35

What does Jesus want us to remember about bread in the Bible? This is the one teaching that caused many people to leave because they could not believe in eating the body of Jesus, but Jesus did not change the message (Read John 6:53-69).

Course summary

Bread is fun to make. It's also great to learn about the meaning behind bread in the bible. What have you learned in this course?

What skills did you develop that you can use in the future?

Answer Key

Most of the questions are to write about scriptures and those are self-evident or personal opinion.

The following are the only answers you might need. Any others that involve math can be checked with a calculator.

For observations, discuss what your child writes and compare it to the baked good.

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Original	Half	Double	Triple
1 cup	$\frac{1}{2}$ cup	2 cups	3 cups
$\frac{3}{4}$ cup	$\frac{3}{8}$ cup	1 $\frac{1}{2}$ cup	2 $\frac{1}{4}$ cup
$\frac{2}{3}$ cup	$\frac{1}{3}$ cup	1 $\frac{1}{3}$ cup	2 cups
$\frac{1}{2}$ cup	$\frac{1}{4}$ cup	1 cup	1 $\frac{1}{2}$ cup
$\frac{1}{3}$ cup	$\frac{1}{6}$ cup	$\frac{2}{3}$ cup	1 cup
$\frac{1}{4}$ cup	$\frac{1}{8}$ cup	$\frac{1}{2}$ cup	$\frac{3}{4}$ cup
1 Tablespoon	$\frac{1}{2}$ tablespoon	2 tablespoons	3 tablespoons
$\frac{1}{2}$ Tablespoon	$\frac{1}{4}$ tablespoon	1 tablespoon	1 $\frac{1}{2}$ tablespoon
1 teaspoon	$\frac{1}{2}$ teaspoon	2 teaspoons	1 tablespoon
$\frac{1}{2}$ teaspoon	$\frac{1}{4}$ teaspoon	1 teaspoon	$\frac{1}{2}$ tablespoon
2 teaspoons	1 teaspoon	4 teaspoons	2 tablespoons
2 eggs	1 egg	4 eggs	6 eggs

Unit 7

Page 37 breads from around the world

A. German rye bread B. Flatbread from several countries, especially ones in the middle east
C. Bagel from Israel D. Scottish scone E. French baguette F. Mexican Tortillas G. Indian Naan
H. Swedish or German stollen I. Three king's bread (Rosca de Reyes) from Latin America and Spain
J. Italian bread K. Irish bread L. Native American/southern Cornbread