

Baking e-Honour

## Explain the difference in food value between whole wheat flour and white flour.

- Whole wheat retains the bran and germ as well as the endosperm, in contrast to white flour which retains only the endosperm.

https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/whole-grains/


Richer in dietary fiber, antioxidants, protein (and in particular the amino acid lysine), dietary minerals (including magnesium, manganese, phosphorus, and selenium), and vitamins (including niacin, vitamin B6, and vitamin E).

## Food Value

Whole wheat flour wins in Nutrition

White wheat flour poor.


## Describe the effects of yeast in bread making.

## Yeast and Baking

- yeasts make up a group of single-celled fungi, a few species of which are commonly used to leaven bread. In the absence of oxygen, yeasts produce their energy by converting sugars into carbon dioxide and ethanol. In baking, the carbon dioxide raises the bread and the ethanol evaporates.
- https://www.youtube.com/watch?v=iyWtp LOKzc

Give one Old Testament and one New Testament incident where leavening is mentioned.


## Yeast in the New Testament

- Jesus mentioned leavening several times including: Matthew 13:33; Luke 13:20, 21
- Jesus compares the Pharisees to leaven in Matthew 16:6-12; Mark 8:15; Luke 12:1


Prepare whole grain bread (can be wheat, rye, oatmeal, etc.)

## Bread Dough Instructions

- Making bread follows just a few simple steps
- Mixing ingredients
- Kneading
- Proving
- Knocking back
- Shaping
- $2^{\text {nd }}$ Prove
- Baking


## Basic Bread Recipe

Bread needs just 4 basic ingredients + time

- 4 cups ( 500 g ) of strong bread flour
- $1 / 2$ tbsp ( 8 g ) of salt
- $1 / 4 \mathrm{oz}(7 \mathrm{~g})$ of fast acting yeast (1 sachet)
- just over $1 \frac{1}{4}$ cups ( 300 ml ) of tap water
- Time

Optional dough ingredients

- Combine different flour types
e.g. 1/3 Multigrain, $1 / 3$ Rye, $1 / 3$ strong white
- up to $1 / 5$ cup ( 50 ml ) of oil or butter will soften the crumb \& crust of the finished loaf



## Bread Dough - Mixing

- To make the dough, weigh out the flour in a large mixing bowl and add the yeast to one side and the salt to the other. DO NOT mix the yeast and salt directly. Salt kills the yeast.
- Add the water to the yeast side of the flour bowl and use a spoon, fork or fingers to bring in the rest of the flour and mix together.
- The dough will look a little dry to begin with. As it comes together in the bowl you can choose to continue kneading in the bowl, or tip it out onto a clean surface to continue kneading.
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## Bread Dough kneading

- There are many techniques to kneading dough The key reason for kneading is to develop the gluten.
- Kneading is therefore simply continuing to mix/fold and stretch the dough until it is smooth and springs back when pressed.
- So you can use whatever method that works for you which stretches, folds/mixes the dough together.
- Once you get going, the dough will first be very sticky, wet and difficult to handle. It won't feel very elastic and will stick to everything. This is exaggerated if adding oil or butter to the dough. But persevere
- After 5 minutes or so the dough will become smooth and much more elastic and your hands and work surface will start to clean up through the kneading.

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## Bread Dough - Proving

- Proving is simply waiting for the yeast in the dough to do its thing!
- So place the kneaded dough into the mixing bowl and cover.
- The gluten you have worked so hard to develop when kneading now captures the carbon dioxide being produced by the yeast trapping it in the dough.
- The dough should rise, more than doubling in size, over a the next couple of hours (depending on the temperature).


## Bread Dough - Knocking back, shaping and $2^{\text {nd }}$ prove

- After the first prove the carbon dioxide in the dough will be in big bubbles and quite unevenly distributed.
- Knocking back helps to break down the big bubbles and distribute through the dough. It also continues to develop and stretch the gluten further.
- The dough should now be soft and very elastic and can easily be shaped.
- Flatten the dough squishing the big bubbles. Gently stretch and fold the dough, taking the edges, stretching them out and then folding them into the middle
- Continue round the dough repeating the stretch and fold. Shape the dough into a round dough ball of a similar size to the original dough before the first prove.
- Place on a tray with baking paper. Cover with a clean tea towel and leave to rise again (2 ${ }^{\text {nd }}$ prove) for about another hour, or until it is almost double in size again.


## Bread Dough - Bake

- Pre-heat your oven to about 220C (200C fan)
- (With appropriate supervision) Take a sharp knife and make some slices in the top of the risen dough.
- The dough will expand more in the oven and will need space to rise. The cuts in the dough gives it the space and stops the finished loaf from splitting randomly
- Bake for 30-35 minutes, or until toast-coloured all over and sounding hollow when tapped on the base of the loaf.
- Leave to cool and enjoy!



## Prepare two of the following:

Yeast biscuits
Unleavened bread
Bread sticks
Bagels
Vegetable bread

## Breadsticks

- 4 cups ( 500 g ) of flour • $1 / 2$ tbsp ( 8 g ) of salt • 1 tsp of barley malt (or 1 tsp of sugar) $\bullet 1 / 2 \mathrm{oz}$ ( 15 g ) of fresh yeast • just over 1 cup ( 280 ml ) of water •1-2 tbsp of durum-wheat semolina • $1 / 5$ cup ( 50 ml ) of extra virgin olive oil +2 tbsp for brushing



## Breadsticks Instructions

- To make the breadsticks, you can knead by hand or use a stand mixer with paddle attachment.
- But let's start by pouring some water into a small bowl... crumble in the fresh yeast... add the barley malt, or the sugar... and mix everything.
- Then take the salt, add it to the remaining water... and let it dissolve. The water must be lukewarm.

- Place the flour in the bowl of the mixer and beat... add the yeast, malt and water mixture... then add the salted water and the oil. Slowly fold in the ingredients and beat for at least 10 minutes, until you have an elastic dough.
- Our dough is ready, as you can see it's smooth and elastic.
- Now form it into a loaf... and sprinkle a baking sheet, lined with parchment paper, with durum-wheat semolina... that is basically coarsegrained flour... sprinkle the bottom... then... flatten the dough slightly.
- Now brush thoroughly with oil... since the oil seals the dough and prevents it from drying out while rising. After brushing with oil, sprinkle some more semolina on top... and let it rise for at least 1 hour: it should double or even triple in volume.
- Take a wide knife and cut a strip of dough, about $1 / 2$ inch ( 1 cm ) wide... take the strip and stretch it out... you can make them as long as your baking pan, even 3 feet long... in this case, we'll use a traditional baking sheet... when you have reached the desired length, break the dough with your hands.
- A distinctive feature of these breadsticks is that, when you break the dough, you can't knead it again, so leave the pieces as they are and bake in the same way. When the baking sheet is full, bake at $390^{\circ} \mathrm{F}$ $\left(200^{\circ} \mathrm{C}\right)$ for about $18-20$ minutes.
- Nice and crispy.




## Unleavened bread

- 100 ml Olive oil
- 1 tsp Salt
- 150 gr White Flour
- 160 gr Wholemeal Spelt
- 150 ml Water

Explain why the use of baking powder and soda should be avoided and why the mixture of milk, sugar, and eggs is harmful to health.

## Baking Soda

The use of soda or baking powder in breadmaking is harmful and unnecessary. Soda causes inflammation of the stomach and often poisons the entire system. Many housewives think that they cannot make good bread without soda, but this is an error. If they would take the trouble to learn better methods, their bread would be more wholesome, and, to a natural taste, it would be more palatable.-The Ministry of Healing, 300-302, 1905

## Soouwhat is the alternative?

Plain Yogurt
Cream of Tartar. .
Vinegar. ..
Lemon Juice

- You can replace 1 teaspoon (5 grams) of baking powder in a recipe with $1 / 4$ teaspoon (1 gram) of baking soda and 1/2 cup (122 grams) of plain yogurt.
https://www.healthline.com/nutrition/ 10-baking-powdersubstitutes\#section10



## Sugar and milk

- Far too much sugar is ordinarily used in food. Cakes, sweet puddings, pastries, jellies, jams, are active causes of indigestion.
- Especially harmful are the custards and puddings in which milk, eggs, and sugar are the chief ingredients.
- The free use of milk and sugar taken together should be avoided.-The Ministry of Healing, 302, 1905

But the sugar and the milk combined are liable to cause fermentation in the stomach, and are thus harmful.-[Christian Temperance and Bible Hygiene, 57] Counsels on Health, 154, 1890

Even a single instance of elevated glucose in the bloodstream can be harmful to the brain, resulting in slowed cognitive function and deficits in memory and attention. Some research suggests high sugar consumption causes inflammation in the brain, leading to memory difficulties.


## Diabetes

## Temperance

## Learning Difficulties

## Addiction

## Cook from scratch

No added sugar, fats Heart Problems

## Brain inflamation

## How do you test a cake for being done?



## How do you keep a cake from falling?

How do you keep a cake from falling?

- Incorrect oven temperature.
- Underbaking the cake.
- Expired baking powder.
- Too much baking powder or baking soda.
- Incorrect measurement of ingredients.
- Opening the oven door too early.
- Closing the oven door too sharply.
- Overbeating the batter in the last stage.

Prepare two of the following:
Cake from basic ingredients (any flavour),
Cake from a cake mix (any flavour),
Fruit or nut cake or loaf cake,
Sponge cake.

## Sponge cake

Ingredients:

150 g self-raising flour
150 g caster sugar
150 g butter
3 eggs
1 tsp salt
1tsp vanilla extract

Optional-
100 g chocolate

## Instructions:

- Line a cake tray with butter and baking paper. Preheat oven at 180 C
- Separate the yolk from the white
- Mix butter and half of the sugar until the butter becomes cream,
- Add the 3 yolks and carry on whisking,
- Add sieved flour little by little with the salt
- Add vanilla extract
- Add the melted chocolate if you wish. Set aside this mixture.
- Start whipping the whites of the 3 eggs, add little by little the sugar.
- The eggs need to become hard. It will be ready when you capsize your recipient and the eggs do not fall. This step is key for the cake.
- Add the elaborated eggs into the flour mixture spoon by spoon folding it together from the bottom of the mixture to the top.
- Reduce oven to 170 C and bake for approx. 50 min . Test if it is cooked by inserting a tooth stick


Make one pie in each of the following categories: Baked, any fruit including lemon
Unbaked (baked pie shell only), fresh fruit, gelatin, etc.

## Lemon Pie

From book 7 Secrets Cookbook by Neva \& Jim Brackett


## Lemon Cream Pie

## $1 / 4$ cup cornstarch

$1 / 2$ cup orange juice
$11 / 2$ cups pineapple juice
1 cup coconut milk (1/2 can)*
$1 / 4$ cup honey
2 tablespoons lemon juice
$1 / 8$ teaspoon lemon extract
1/4 teaspoon salt
1 baked Crumble Nut Crust (p. 83)

1. In a medium saucepan, place the cornstarch and $1 / 2$ cup orange juice. Stir together until dissolved.
2. Add the remaining ingredients and bring to a boil while stirring constantly until thickened.
3. Remove from heat and pour into baked Crumble Nut Crust. Refrigerate several hours to chill. Serve with Whipped Topping (p. 99), if desired.
*Coconut milk can be replaced with $1 / 2$ cup cashew nuts or $10^{1 / 2}$-ounce box or $3 / 4$-cup soft tofu. If cashews or tofu are used, you will need to use a blender: Add more pineapple juice if needed to make $3^{11 / 4}$ cups total mixture.

Variation: Key Lime
Instead of lemon juice, use juice and grated peel of one large or two small limes and add about 6 drops of green food coloring.

## Crumble Nut Crust

This is Kimberley's recipe, and it has become our favorite graham-cracker-like crust.
$1 / 2$ cup unsweetened coconut
1/2 cup raw almonds
$2 / 3$ cup flour (whole wheat pastry or barley) or $3 / 4$ cup quick oats
$1 / 2$ teaspoon salt
2 tablespoons honey (warm and runny)(may use 2 tablespoons sugar and 2 or 3 tablespoons water)

1. Place coconut, almonds, flour, and salt in food processor. Blend together
for about 30 seconds. Then add honey and blend about 15 seconds. Turn off processor and test mixture with your fingers. If it seems too dry and crumbly, add a bit more honey-just enough to feel soft and moist. It should stick together slightly when pressed. But be careful not to get it too wet, or it will not be as tender and light when baked.
2. Press into a lightly oiled pie plate, shaping with fingers to make a nicely formed piecrust. It helps to put a piece of plastic wrap over the crust or put your hand in a small plastic bag while pressing the crust. This keeps the mixture from sticking to your fingers as you work.
3. Bake at $375^{\circ} \mathrm{F}$ for about 10 minutes.

Variation: Coconut-Oat Crust Use $3 / 4$ cup quick oats and $3 / 4$ cup coconut, following above instructions.


## Fruit baked Pie

## - Ingredients:

- Sponge:
- 5 eggs
- 5 tbs of sugar
- 5 tbs of flour
- Fruit bit
- About 500 g of fruit - any fruit of choice (or if using frozen fruit, one bag would be sufficient)
- About 600-700g of vanilla custard, hot or cold (or how much your like)
- 1 tbs of sugar (optional, depending on the sweetness of the fruit)
- Whipped cream for decorating (optional)



## Method:

- Heat the oven to 180 C .
- Grease the baking pan and dust with flour to avoid the batter to stick. Beat the eggs with the sugar with electric mixer until the sugar melts and it becomes fluffy (see the picture). Fold in the flour with a spatula and pour into the baking tray.


- Bake on 180C until the edges start to come away from the baking tray and it gets golden colour, for about 20 min .
- Let the sponge cool and in the meantime, if using the frozen fruit let it defrost, or if using fresh fruit, cut it or mash and mix with the custard.


Thercüt-out pieces of cake mix with the fruit and caster and fill out the cake.


You can serve the cake as is, but it would taste better if you let it sit for a couple of hours so the fruit juices will moist the sponge part of the cake.

You can decorate the cake with whipped cream and fresh fruit if you like and enjoy

Make and bake one recipe of cookies. Make one recipe of refrigerator cookies. It is preferable to use wholesome ingredients such as fruit, oatmeal, nuts, etc.

## Lemon Balls

Children will love helping you make this simple recipe - and they 'll love eating the lemon balls too!

1 cup dried pineapple pieces (low sugar)
1 cup golden raisins
$3 / 4$ cup raw cashew nuts
$1 / 8$ teaspoon lemon extract
$1 / 4$ teaspoon salt
$1 / 4$ cup fine coconut

1. Put all ingredients except coconut in food processor. Whiz for about 1 minute. At first the ingredients will remain crumbly and separate; then they will begin to stick together in
a ball. Continue whizzing about 15 more seconds to chop and blend together.
2. Place fine coconut in a bowl. Scoop out fruit mixture a tablespoon at a time and shape into a ball with your hands, then roll in coconut and place balls in a flat storage container. Chill before serving.
Tip: A small (4-ounce) ice-cream scoop works great for this! Scoop out and release into the coconut. Shape balls as you roll them in the coconut.

Variation: Try other dried fruits or muts, such as dried apricots, cranberries, cherries. dates, almonds, or walnuts.

Makes about 16 I-inch balls.

## Cookies Refrigerator

## Peanut butter cookies

## - Ingredients

- 3/4 cup natural smooth peanut butter
- 1/2 cup coconut sugar
- 1/4 cup maple syrup
- 3 Tbsp. coconut oil, melted
- 2 flax eggs*
- 1 tsp. vanilla extract
- 1 1/4 cups oat flour**
- 1/2 tsp. baking powder
- $1 / 2$ tsp. baking soda
- pinch sea salt


## Recipe Notes

*2 Tbsp. (14 g) flaxseed meal + 5 Tbsp. ( 75 ml ) water. Whisk and let the mixture sit for 10 minutes. Then use as instructed.
${ }^{* *}$ I make my own oat flour by grinding rolled oats in a Vitamix.
A cup of rolled oats will yield approximately 1 cup of oat flour.

## Instructions

1.Add the peanut butter, coconut sugar, maple syrup, coconut oil, flax eggs, and vanilla extract into a large mixing bowl. Whisk vigorously to get as much air into the mixture as possible.
2.Add the oat flour, baking powder, baking soda, and salt. Mix until well combined. The dough should be thick and sticky.
3.Using a 2 Tbsp. ice cream scoop, scoop and drop cookie dough balls onto a baking sheet lined with parchment paper. Allow enough space in between the cookies (they will spread slightly). I usually use 2 baking sheets with 8 cookies on each of them. Using a fork, press down slightly to flatten cookies. Turn the fork and press down on the cookie to create a crisscross pattern on top.
4.Bake the cookies at $350^{\circ} \mathrm{F}\left(175^{\circ} \mathrm{C}\right)$ until slightly golden brown around the edges, $10-11$ minutes. (The cookies will be soft when you take them out of the oven, but they will firm up as they cool). Allow the cookies to cool on the baking sheet for 10 minutes.


- Peanut Butter cookies: https://nutritionrefined.com/vegan-peanut-buttercookies/


## youtube link: https://www.youtube.com/watch?v=CuvPvaXP9d8\&t=279s

## Nutrition Facts

Amount Per Serving (1 of 16)
Calories 156
\% Daily Value*
Fat 8g12\%
Carbohydrates 18g6\%
Fiber 1g4\%
Sugar 8g9\%
Protein 5g10\%

* Percent Daily Values are based on a 2000 calorie diet.


## Prepare a recipe file for all the items required above and any others desired.

See how many recipes you can find using fruit without large amounts of sugar.

