

Be a **BREADHUGGER....**

“GREEN” SPREAD THE BREAD PATCH ACTIVITIES

There’s something about BREAD that defines, unites and inspires, so it should be no surprise that our NEW “green bread” project and “Backyard Bake” campaign were inspired by our youth, for our youth, to explore healthy and natural ways to bake and celebrate bread for our heroes, those in need and our earth. That’s right, be a BREADHUGGER ☺

The goal of this bread project is to educate youth about organic baking practices, organic food products, organic breads, supporting local farmers markets in your backyard and using fruits, vegetables and grains from our earth to bake organic breads INDOORS and OUTDOORS, at least all summer long, for community bread outreach. This is strictly an awareness project not an advocacy platform.

Discuss these “green bread” activities then select the ones they would like to do to complete the patch. Youth must complete a minimum of four activities to receive the “GREEN” Spread the Bread patch. The starred activities are required. You can also create your own special bread activity...the concept is “as pliable as the dough”. (*Some of these activities have been adopted from Carol Lee Spages original Spread the Bread patch requirements document*).

Going back to the “organic” origin is where this GREEN project begins. It’s also fitting that BREAD has been in our culture for almost 6,000 years—guess you could say it’s in our ROOTS.

HISTORY: Discover the origins of bread. What was the first bread ever made? Who made it and when? Sourdough is the oldest yeast bread ever made. In which country was it first made? How is making bread today different than when bread was made when our country was founded? If possible, visit a historic site where bread is still being made like our founders did.



Helpful Sites -

Food Timeline - <http://www.foodtimeline.org/foodbreads.html>

The History of Bread - <http://www.breadinfo.com/history.shtml>

The History of Sourdough - <http://www.kitchenproject.com/history/sourdough.htm>

ORAGANIC: Define “Organic” and research why organic foods are better for our bodies and our Earth. The U.S. Department of Agriculture defines something as being organic if it fits within certain definitions, as they appear in the [USDA Organic Food Standards and Labels](#). Some of definitions include:

** Food that is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations.*

** Meat, poultry, eggs, and dairy products that come from animals that are given no antibiotics or growth hormones.*

** Food that is grown and produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation.*

** Food that comes from farms that a Government-approved certifier inspects to make sure the farmer is following all the rules necessary to meet USDA organic standards. (Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too.)*

How do you define “organic”? GREEN isn’t just a color anymore. What are some GREEN practices that relate to bread and baking? Does “organic” flour and other organic ingredients make bread taste better? Define “sustainable green baking practices? What’s a carbon footprint and does that relate to the bread that you’re eating at your table? (see resource websites at end of packet).

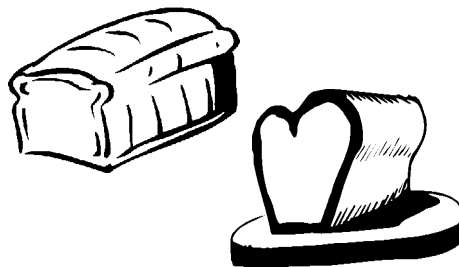
HEALTH and NUTRITION: Organic foods can help prevent cancer, strokes, and heart problems that take can over our bodies and minds. They can also play a big part in the population of animals too. For example, by eating organic foods, animals have a greater chance of reproducing more offspring than animals who feast on conventional food. How can that be?

Compare the nutrients in different types of organic bread. Learn how to read the food labels. Which breads are higher in calories, sodium (salt), fat, have more whole grains. Which is healthier for you, white or whole grain bread? Why? Where does bread fit into the food pyramid? You could ask a dietician or nutritionist for help with this activity.

DIVERSITY: Try breads with origins in a variety of cultures. Select your favorites. You could pick the one you like most and try making it. We have also included some organic bread recipes. Suggestions:

Challah and Matzo - Jewish
Nan - India
Soda bread - Ireland
Pita - Greece
Tacos and tortillas - Mexico
Pumpernickel – Germany

Focaccia – Italy
Fry bread – Native American
Honey bread - Ethiopia
Julbrod – Sweden
French – France
Baked sweet bread - China



ORGANIC BREAD RECIPES:

ORGANIC RECIPIES

ZUCCHINI BREAD

Ingredients:

1 cup sugar
1 1/2 cup flour
1/2 tsp baking soda
1/4 tsp corn starch
1/2 tsp salt
1/2 tsp cinnamon
1/4 tsp nutmeg

2 eggs
1/2 cup oil (I use canola)
1 cup grated zucchini (about 1 medium)
1/2 tsp vanilla

Directions

Preheat oven to 350. Either butter pan or use some kind of oil spray. Mix the dry ingredients together. Mix the wet ingredients separately, then add to dry ingredients and mix it all together. Put it in the pan and bake for 1 hour.

CORN BREAD

Ingredients:

- 1 cup pastry flour
- 1 cup cornmeal
- 1 tablespoon baking powder
- 1 1/2 tablespoons honey
- 1 egg
- 1/4 cup extra virgin olive oil
- 1 cup milk

1. Preheat oven to 350 degrees Fahrenheit. Then mix the flour, cornmeal and baking powder together in a medium sized bowl until the mixture has a yellowish tint to it.

2. In a separate bowl of the same size, stir the egg, oil, honey, and milk until fluffy. Scoop the flour out of the first bowl into the bowl with the liquids.

3. Mix the flour in thoroughly until no flour chunks are visible and the mixture is light and fluffy. Oil a cake or brownie pan and pour the mixture in. Bake in the oven for 15 to 20 minutes.

4. When the cornbread is done it should be golden brown and when you pierce it in the middle with a fork if the fork comes clean then it's done. If the fork comes out with dough on it, then it still needs to cook longer.

WHOLE WHEAT MUFFINS

Ingredients:

- 1 cup pastry flour
- 1 tablespoon baking powder
- 1/2 cup whole wheat flour
- 1/2 cup milk
- 1 egg
- 1/2 cup honey
- 1/4 cup extra virgin olive oil

1. Preheat oven to 350 degrees Fahrenheit. Oil a muffin pan that makes 12 (or 2 muffin pans that make 6 muffins each) or use baking cups to line the muffin pans.

2. Mix the pastry flour with the baking powder and whole wheat flour in a medium sized bowl. In another medium size bowl combine the milk, egg, honey, and oil. Beating until light and fluffy.

3. Stir the flour mix into the liquid ingredients and mix until no flour lumps are visible. Spoon mixture into muffin cups and bake for 15 to 20 minutes or until golden.

Blueberry-Strawberry-Yogurt Muffins

Preheat oven to 375.

Stir together:

1/2 cup rice flour
1/2 cup sorghum flour
1/2 cup millet flour
1/2 cup arrowroot starch
1/2 cup garbanzo bean flour

After this is well combined, remove 1/2 cup and put it in a plastic baggie. The base recipe that I was using only calls for 2 cups of flour, but I convinced myself that there were only three halves, added the garbanzo and said, "rice, sorghum, millet, arrowroot, ... crap." So if you want my exact flour mix, that's how I got it.

To the 2 cups of flour whisk in:

2-ish tsp xanthan
1/2 cup light brown sugar
2 scant tsp baking soda
1/2 TBSP egg replacer powder
a few shakes of ginger (~1/2 tsp?)

In a separate bowl, prepare egg replacer for 2 eggs (or gently beat 2 *organic* eggs).

Stir in 1 1/2 cups strawberry yogurt (regular, soy or goat). (This for me was about two Tbsp less than that plus enough apple sauce to even it out because I didn't have as much yogurt as I thought....)

Melt 1/2 cup coconut oil (don't get it too too hot) and whisk it into the yogurt mixture along with a splash of vanilla.

Whisk this into the dry mixture until just combined.

Stir in 3-4 handfuls of blueberries (~1 cup?).

Dollop into muffin tins lined with pretty papers and bake for 20-25 minutes. I used cupcake tins, so mine took just under 20 minutes, real muffin tins would probably take closer to 25.



SCIENCE:

[Make your own SOLAR OVEN in your backyard.](#) It's easy using the resources on the link below:

http://www.re-energy.ca/t-i_solarheatbuild-2.shtml

OR make an OVEN out of a box:

<http://www.macscouter.com/Cooking/docs/BoxOven.pdf>

(Solar Energy Association reference)

The principles demonstrated in making these ovens are:

- **Solar Gain** - arranging for sunlight to enter a device as a source of energy. In this case, the gain is accomplished both by reflection and direct gain. This principle also includes using dark colored surfaces to absorb the solar energy that enters a device.
- **Insulation** - containing heat by trapping air inside and around a device to contain heat, and reflecting thermal radiation back into a device.

The third principle of passive solar design - thermal mass, can also be experimented with the solar oven. Large amounts of food will provide some thermal mass, causing the oven to heat up more slowly.

Besides explaining these principles in the process of building and using the ovens, here are several other points you might want to discuss:

- Cooking food takes a lot of energy! By using solar energy, we can save a lot on fuel.
- Cooking takes time, and the Sun will change position during that time. Therefore, somebody, such as a vigilant cook, may need to align the solar oven now and then to keep the sunlight entering. Mechanisms that track the sun and adjust the device automatically are called "heliostats" (like thermostat, but with "helio", which means "Sun", instead).
- Solar ovens have been used for a long time. In the 1830s, the British astronomer **John Herschel** used a solar collector box to cook food during an expedition to Africa. Nowadays, one can buy commercial solar ovens, ranging from small single dish units, to large units that can feed many people at once and that have to be hauled around on a trailer.
- Without the reflector flap, the solar oven becomes what is called a "flat plate collector". Flat plate collectors are used for many applications, such as heating water (the reason for not using a reflector is that it is not really needed for these applications- and thus alignment difficulties associated with reflectors can be avoided). One of the first known uses of solar hot boxes was by the cooks of the Roman Emperor Tiberius who wanted to eat cucumbers all year round. The cooks satisfied his regal appetite by using a solar hot box, a kind of flat plate collector, to grow the cucumbers all winter long! Nowadays, many people also use flat plate collectors to heat water for their pools and houses.

The simplest pizza box solar oven design, can get up to two hundred degrees fahrenheit on a *warm* sunny day, enough, for example, to make "s'mores" (graham cracker sandwiches of chocolate chips and marshmallows). Several optional features will enable the oven to get even hotter, which may be desirable in cooler weather, or for more serious cooking. One should allow ample time for cooking - roughly twice as long as would take in a conventional oven, and for smore's, it works best to leave the sandwiches open while cooking so that direct sunlight falls on the marshmallows and chocolate chips). We do not recommend trying to use the oven outside in temperatures below about 60 degrees Fahrenheit. If its cool outside, try a sunny window sill.

Note: Many pizza shop owners will be more than willing to donate boxes. In return, you may want to ask a local reporter to cover the event, and ask the reporter to specifically mention the pizza shop's donation in any news article that appears

STUDY THE SCIENCE OF YEAST

Yeast is a tiny plant-like microorganism that exists all around us - in soil, on plants and even in the air. It has existed for so long, it is referred to as 'the oldest plant cultivated by man'. The main purpose of yeast is to serve as a catalyst in the process of fermentation, which is essential in the making of bread. How many types of yeast are there? What is the strain of yeast that is most commonly used in making bread?

Perform an experiment using YEAST. What can you discover?

- Yeast feeds on the starches in flour, producing carbon dioxide
- The carbon dioxide expands the gluten proteins in the flour
- The gluten proteins cause the dough (of which flour is a main ingredient) to expand and rise

COMPOSTING: A Baker's Compost

Composting is like baking BREAD. You add in the ingredients and then let it bake. Whether you compost kitchen waste or yard and garden waste, the end result benefits our earth, because the mixture serves as food for our plants. Composting is nature's best mulch or soil amendment.

Make your own compost from your banana peels, egg shells, seeds or baking ingredients. Check out the link below for more information~

BEST EVER COMPOST:

<http://www.css.cornell.edu/compost/outdoorbest.html>

REUSE: Did you know that our world throws out millions of tons of fruits and vegetables that could be put to good baking use? That bruised banana could taste great in a banana bread—or frozen and then used to bake a banana bread when it's convenient. The same goes for your wrinkly produce—that is still filled with nutrition, fiber and taste. Think about and embrace your tired apples, lemons, berries, zucchini and more...

RECYCLE: Consider collecting plastic bread bags and making something fun and worthwhile by recycling. You could weave a rug, make a neat jump rope, or even make yarn from the bags. Check out the following resources for more information:

Yarn for any number of projects:

http://hellejorgensen.typepad.com/gooseflesh/2007/02/plastic_bag_yar.html

Jump rope:

http://highlightskids.com/Express/Crafts/Games/C0894_jumprope.asp

TECHNOLOGY: How is bread produced commercially? Visit a place where bread is made in large quantities. It could be a local bakery, restaurant or super market with on-site baking, or manufacturing plant. You could visit a facility that grinds grains like wheat, oats, barley, rye, corn, etc. Learn how grains get from the field to your table.

CAREER DEVELOPMENT: Speak to someone who deals with bread as part of their job...baker, dietician, restaurant owner, nutritionist, etc. Find out what the job entails. What are the positive and (possibly) negative parts of the job? What education did they need for the job? Many women are famous for their work in professional kitchens. Learn about some. Or learning more about **ORGANIC FARMING**...These farms are the vital link in our organic food chain. Visit a local farm and witness all of the organic fruits and produce that can become part of your bread baking experience. Think about the cornucopia of fruits and vegetables that define bread: pumpkin bread, zucchini bread, potato bread, pumpkin bread, banana bread, blueberry bread, strawberry bread, plum bread, etc...

* **SERVICE:** Learn about the Spread the Bread project. Identify where in your local area you could donate your bread. Check with food pantries, food kitchens, welfare office, Meals on Wheels, homeless shelters, battered women's shelters, senior housing projects, places of worship, etc. The bread could also be given as thank you gifts to local heroes like veterans, police officers, firefighters and others who have supported the nation and community. Remember, the Spread the Bread mission is to give loves of bread with heartfelt messages to individuals. The bread is not meant to be sliced up and served at communal feedings. For this project you also might consider attaching some seed with your breads and notes. For example, pumpkin seeds with pumpkin bread, zucchini seeds for zucchini bread and so on. Attaching "organic" tea bags to the breads is another idea. Again, the concept is really as pliable as the dough!

Learn about Friendship Bread. Make some starter and spread the word to others by handing out starter and the directions for making more bread. Tell others about Spread the Bread.

Compile a booklet of bread recipes. Share them with others to help Spread the Bread mission.



Send a report of your project to Spread the Bread telling about what your group did to complete the patch requirements and where you donated the bread.

Helpful Sites –

Spread the Bread - <http://www.spreadthebread.org>

Amish Friendship Bread - <http://www.armchair.com/recipe/bake002.html>

*** REFLECTION:** *Youth will get the most from their service experiences by reflecting, contemplating, problem-solving, and evaluating throughout the entire service experience. Reflection is a structured opportunity for them to think critically about their service and how it impacted the community. Reflection gives participants a platform to apply what they have learned from their service to a broader social and academic context under the guidance of advisors and mentors. Youth should be active participants in the evaluation of their service: What worked well? What can be improved?*

ADDITIONAL RESOURCES:

Bread Poems and Bread Stories: <http://groups.yahoo.com/group/spreadthebread>

Go to the Spread the Bread Yahoo Group site, join the group, if not already a member, then click on Files.

Whole Grains Council: www.wholegrainscouncil.org

A consortium committed to increasing consumption of whole grains for better health. Promoter of the Whole Grain Stamp.

Gluten A-Go-Go Blog: <http://glutenagogo.blogspot.com>

A great resource for gluten-free baking

MyPyramid: www.mypyramid.gov

Features the updated "Food Pyramid," illustrating the USDA's 2005 Dietary Guidelines for Americans.

Wheat Foods Council: www.wheatfoods.org

A national nonprofit organization formed to help increase awareness of grains as an essential component to a healthy diet.

Wheat Mania: www.wheatmania.com

A day in the life of a Kansas wheat farm with virtual tours and trivia. Great website for kids!

American Dietetic Association: www.eatright.org

The nation's largest organization of food and nutrition professionals.

American Institute of Baking: www.aibonline.org

The original mission of the AIB was to "put science to work for the baker," a theme still central to all of the programs, products, and services provided by AIB to baking and general food production industries worldwide.

Bread Bakers Guild of America: www.bbga.org

An organization representing, educating, and promoting artisan bread bakers.

National Restaurant Association: www.restaurant.org
The leading business association for the restaurant industry.

The Food Institute: www.foodinstitute.com
A resource for food industry information.

Bread World : www.breadworld.com
A educational website, underwritten by Fleischmanns Yeast.

Breadtopia: <http://www.breadtopia.com/>
Everything you wanted to know about BREAD and bread baking.

Vitamins Diary: <http://www.vitaminsdiary.com/>
Review the value in organic foods and vitamins.

Organic Test Kitchen : <http://www.organictestkitchen.com/blog>
A blog dedicated to all things related to organic food. They review products, provide recipes, discuss environmental issues, investigate personal care products, look at "conventional" food and the issues surrounding it.

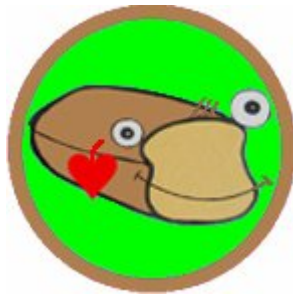
Organic: www.organic.com
An education website that provides resources, research, recipes, lesson plans for organic living.

Easy Green Guide: <http://www.easygreenguide.org>
This site is a consumer guide and information resource to green living and information on global warming.

INSPIRATION behind this GREEN BREAD Project.

McKenna Kiefer and Madison Jones are 7th grade students who embarked on a GREEN awareness quest which began as a science project to "take action" and find a way to care for our earth. "Our environment is polluted everyday with pesticides, chemicals, growth hormones, etc. We wanted to change that, if even in a small way, through education and an "organic" bread awareness campaign with Spread the Bread," said McKenna Kiefer. Spread the Bread uses the gift of bread, tied with notes of hope, inspiration and gratitude to honor our heroes and help those in need. "Because of the organization's global reach, we thought there was an opportunity to create "green bread" project which could help educate more youth about organic baking, and deliver that message locally and globally by developing a "green bread" service-learning project in which kids across the world could earn a service learning patch for their organic baking awareness, practices and outreach.

This patch program is being offered as an extension of program by Spread the Bread.
Program was originally developed by Carol Lee Spages 1/2007
clspages@earthlink.net



SPREAD THE BREAD REPORT FORM

Responsible Adult _____ Phone

Address _____

_____ Zip

E-Mail Address _____ Council

Number of YOUTH Participating in the Project _____

Girl Scout Adults _____

Number of-Girl Scouts/Boy Scouts _____ Non-Girl Scout
Adults _____

What kind(s) of bread was made?

To whom was the bread delivered?

When was it delivered?

Describe the response of the
recipient(s).

SPREAD THE BREAD PATCH ORDER

Mail Order To: Name

Address

_____ Zip

E-mail address

Number of Patches _____ at \$1.00 each =

\$ _____

Add Mailing Fee: Add \$1.50 on orders 1 - 20 pieces
Add \$3.00 on orders 21 - 40 pieces

For larger or international orders, contact info@spreadthebread.org for pricing

Total Payment Enclosed \$ _____

Payment will be by check payable to Spread the Bread and mailed to:

Spread the Bread
P.O. Box 5254
Wayland, Massachusetts 01778
United States

Spread the Bread

