

## Project Noah - Month 3

Billie Nicholson



**Project Noah** is a yearlong food storage and emergency preparedness program designed to help you set and obtain goals in the area of family preparedness. The program is divided into twelve monthly assignments touching on lots of short and long term preparedness subjects including a preparing, a reporting and a sharing segment each month. These lessons are designed to be used in church or community groups focused on preparedness. Start your own group and use these newsletters as a reference resource. Many articles will link to previous articles on SunOven.com or other sources. Click for additional information.

This THIRD month's lesson includes directions on creating an pre-disaster emergency evacuation plan. We've included instructions on how to shut off utilities in your home during emergency or evacuation events. You will understand the need for and begin to put together a 72 hour emergency kit. Emergency kits need to be personalized because each individual and family are different. Parents with young children will need to pack differently than the elderly, single or disabled. We'll be giving suggestions and reminders. Shelter, food and water are this month's focus, including suggestions for items to pack in your kit to eat during the first 72 hours following an emergency.

Our non-food item this month is hand and body soap. In addition to searching for the best buys on what you like to use, we have included some alternatives to store-bought soaps.

As you continue collecting foods for your three-month supply, we have included lunch ideas and simple meal plans.

The long term storage item this month is powdered milk: why and how to store, shelf life, differences between instant and regular and recipes.

[Assignments on Page 10](#)



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### *Ask Billie*

**Q.** Can more than one thing be cooked at the same time in a Sun Oven®?

**A.** Yes, the *SUN OVEN*® has been designed to accomodate baking two loaves of bread at once, three baking racks can fit in the oven at once for cookies (remove top racks first and let lowest stay in the oven a few minutes longer). Stacking graniteware pots can cook two different items & 2 mason jars with side dishes makes four things cooking at once. There must be air flow for even cooking, so use the leveling rack or place containers on a trivet.



*A Sun Oven® Cooking Day*

*Sweet Potatoes and Swiss Chard © 2016 Billie Nicholson*

What is your Most Burning Question about Food Storage or Emergency Preparedness? Send your questions to [editor@sunoven.com](mailto:editor@sunoven.com)

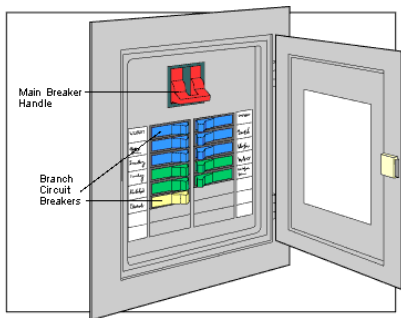


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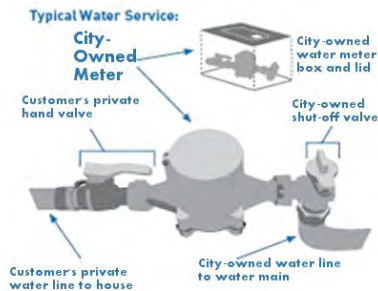
## Family Pre-Disaster Evacuation Plan

Disasters happen without warning. [Preparation](#) is the key to your family's success in any emergency. If you have a [pre-disaster plan](#), you can reduce the stress and anxiety of any situation, especially for small children and older adults. Find out from your local government how you will be notified for each kind of disaster, natural or man-made.<sup>1</sup> Also, check with your local schools and workplaces for their emergency plans. Many communities broadcast via emergency radio or tv. Some locations rely on a telephone call and others rely on door-to-door notification. If your community has an [emergency alert system](#), get signed up to participate.<sup>2</sup> Depending on the nature of the emergency, you and your family may need to provide food, water and shelter among other things away from your home. Prepare a detailed plan including emergency flight bags, often known as Bug-Out-Bags or [72 hour kits](#). Put together one for each member of the family.<sup>3</sup>

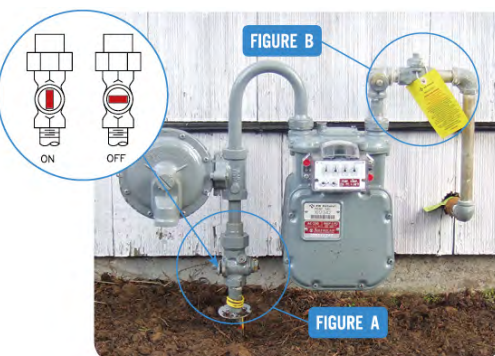
In addition to the items to eat and drink, shelter will be a major need during an emergency. Be sure to acquire a tent, a ground tarp and sleeping bags or mats and astronaut blankets. Some of these may not fit in your back pack and will need to be carried separately. Remember you should only plan to carry 20 - 25% of your body weight to move safely without exhaustion. Physical fitness should also be part of your emergency plan.



### Electricity cut-off



### Water-meter cut-off



### Gas cut-off valves

### Utility Shut-Off

Learn how to shut off all utilities to prevent further damage to your home. All your family members should know where to locate these cut-offs and how to work them.

**Electricity** - Locate your electricity circuit box. To turn off the power, flip the main circuit breaker pair, usually located at the top of the panel, to the OFF position. When you open the electrical panel, make sure there are no exposed electrical wires except for an exposed solid copper ground wire. A protective panel should conceal all wiring - only the breakers or fuses should be visible.<sup>4</sup>

**Water** - Water quickly becomes critical during a disaster. Make sure everyone knows where to find the water line coming into your home and how to completely shut off the valve. This valve should be checked periodically to make sure it is not corroded. If so, replace it. Broken water lines in the community can contaminate the water supply to your house. Shut off the water supply until you learn that it is safe to drink. Broken lines in your house can quickly flood and ruin everything. Locate indoor valves under sinks or at toilets as well. The main line at the street requires a special tool.<sup>5</sup>

**Natural Gas** - Natural gas explosions are responsible for many fires following disasters. All houses with natural gas have a shut-off valve. If you smell gas (it's actually a special odor indicator) or hear a hissing noise, first DO NOT turn on or off any electrical switches. Next open a window and get everyone out quickly. Turn off the gas using the outside main valve and call the gas company from a neighbor's home. Never attempt to turn the gas back on yourself. A qualified professional must do that.<sup>6</sup>

### References



## **Personalize Your 72 Hour Kit**

- Clothing and Bedding: Rotate clothing seasonally. If you live in a cold weather climate, you must think about warmth. It is possible that the power will be out and you will not have heat. Rethink your clothing and bedding supplies to account for growing children and other family changes. One complete change of warm clothing and shoes per person, including:

- A jacket or coat
- Long pants
- A long sleeve shirt
- Sturdy shoes
- A hat and gloves
- A sleeping bag or warm blanket for each person

### **Consider Adding These Items**

- Rain gear
  - Mess kits, paper cups, plates and plastic utensils
  - Cash or traveler's checks, coins including silver content
  - Paper towels / toilet paper / wet wipes
  - Fire Extinguisher
  - Tent
  - Compass / walkie Talkies / mirror for signaling
  - Matches in a waterproof contain/ fire starter
  - Signal flare / glow sticks/ battery operated head lamp
  - Paper, pencil
  - Personal hygiene items including feminine supplies
  - Tooth brushes & toothpaste; comb/brush/razor/deodorant
  - Diapers
  - Cell phones with small solar charger
  - Camp tools - axe, shovel, knife
  - Household chlorine bleach - You can use bleach as a disinfectant (diluted nine parts water to one part bleach), or in an emergency you can also use it to treat water. Use 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
  - Medicine dropper
  - Important Family Documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
  - Prescriptions, syringes for self injections
  - Glasses
  - Entertainment like card games or small books
  - Ear plugs
  - Universal solar device charger
- When selecting a container for all these items, it must be rugged and be portable. Backpacks are recommended, but dividing contents into several types may be more convenient.

## What Kind of Food to Pack?

What kind of food should you pack in your 72 hour kit? You can use camping food or lunch packs. Dried fruit and granola bars are okay, but some food needs to be calorie dense. Since access to a cooking fire might be non-existent, most of these items should be ready to eat right out of their package. Be sure to pack the type of food you will eat. Why not take some time and practice making an emergency escape and eat the items you've packed? Here are some suggestions.

- Emergency Food bars
- Granola bars
- Protein bars
- Oatmeal packets
- Peanutbutter snack packs/crackers
- Tuna lunch packs
- Beef Jerky
- Dried or canned fruit and veggies
- "Canned" meats like chicken, deviled ham or corned beef, tuna or sardines
- Canned meals like Ravioli or spaghetti
- Gum
- Home-made MREs
- Fruit rollups/dried fruit
- Comfort foods like hard candy or cookies
- Any special dietary foods
- Can opener if your cans aren't pop-top
- Camping plates/utensils
- Soup packs
- Drink packs (fruit juice, cocoa, cider)
- Nuts / trail mix
- Water bottles/ water straws/ purification tablets
- Freeze-dried meals (remember extra water for rehydration [BUY NOW](#))
- Yogurt on the go
- Multivitamins

## Suggested 72 Hour Menu

### Day 1

Breakfast: 1 Granola bar, hot chocolate  
Lunch: 2 beef jerky sticks, boxed drink, gum  
Dinner: 1 MRE, several crackers  
Snack: Fruit snack, nuts

### Day 2

Breakfast: 1 oatmeal pack, raisins, hot chocolate  
Lunch: 1 MRE, crackers, gum  
Dinner: 1 pkg Soup mix, 1 beef jerky, fruit snack, crackers  
Snack: Peanut butter & crackers

### Day 3

Breakfast: 1 Granola bar, apple juice  
Lunch: Tuna lunch kit, water  
Dinner: Ravioli, apple cider  
Snack: Trail mix

### Day 1

Breakfast: Power bar, granola bar, cocoa, vitamin  
Lunch: Soup mix, 10 crackers, 1 juice box  
Dinner: 3 Beef sticks, 1 fruit cup, Peanut butter & crackers  
Snack: Nuts, hard candy, gum

### Day 2

Breakfast: Trail mix, Yogurt on the go, cocoa, vitamin  
Lunch: Tuna lunch kit, fruit, power bar, apple cider  
Dinner: Mini-can of beef stew, dried fruit  
Snack: Raisins, nuts

### Day 3

Breakfast: Granola bar, fruit snack, apple juice  
Lunch: Peanut butter crackers, mini-can of chicken  
Dinner: 1 soup mix, crackers, fruit, granola bar  
Snack: Nuts, raisins

## Super Simple Solar Lunch from Our Solar Chef



*This satisfying solar lunch is insanely easy and the variations are infinite. I'm partial to bean soups, but really any kind will work. The squash I used today were rather small. If yours are bigger simply increase the amount of soup and pasta. The pasta ratio can also be adjusted according to your taste.*

### *Sun Oven Squash Soup Bowls*

#### INGREDIENTS

2 small winter squash, washed  
1 teaspoon olive oil  
salt to taste  
1 cup canned soup (I used black bean)  
4 tablespoons soup pasta (orzo, stelline, ditalini, etc.)

#### PREPARATIONS

Set *Sun Oven*® out to preheat.

Cut the tops off the squash. Remove and discard the seeds. Brush the inside of each squash with 1/2 teaspoon olive oil. Season with salt. In a small bowl combine the soup and pasta. Fill the squash with the soup mixture. Cover with the tops. Place the squash in a baking pan and transfer to the Sun Oven®. Cook until the squash is tender and heated through, 1 1/2 to 2 hours. Serve immediately.

Makes 2 servings.

## The Squeaky on Soap

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Soap is the oldest cleanser around. Cleanliness is critical in everyday life and especially in emergency situations. We are encouraged to store a year's supply of soap. How much you need depends on the number of people in your family and how often you bathe. Clean hands prevent the spread of illness. As you touch surfaces, objects and people during the day, you pick up germs on your hands. You can infect yourself with these germs as you touch your eyes, nose, or mouth. The Mayo clinic recommends that you always wash your hands before and after preparing food or eating, treating wounds, giving medicine or caring for a sick or injured person or before inserting or removing contact lenses. In addition, wash after using the toilet or changing a diaper, touching an animal, blowing your nose, coughing, sneezing, treating wounds or handling garbage, household or garden chemicals and SHAKING HANDS with others. Also, wash your hands whenever they look dirty.

To wash your hands, use soap and water: wet your hands with running water, apply the soap, lather well. Rub your hands vigorously for at least 20 seconds (hum the chorus of "Happy Birthday.") Remember to wash the backs and between the fingers and under the nails. Rinse well and dry with a clean or disposable towel or air dryer. Can you turn off the faucet with your elbow? <sup>1</sup>

Soap is created by a chemical reaction between oils, water and lye. Lye is a strong alkali in the form of either sodium or potassium hydroxide. Sodium hydroxide is used in making solid soap, potassium hydroxide is used for making liquid soap. <sup>2</sup> They are not interchangeable in the soap making process. Although lye is used to make soap, there is no lye left after saponification is complete. There is no such thing as a bar of soap that was made without the use of lye. Both animal and plant oils can be used in the soap making process, each adding different qualities to the soap.

Most of the soap available in the store today is not really soap at all, but detergent. Detergents are a petroleum based product. There are many ingredients in commercially produced soap that irritate your skin with conditions like psoriasis and eczema. Homemade soap often relieves skin conditions as it is milder and doesn't contain the potentially harmful chemicals found in conventional bars. One of the big differences between commercial and handmade soap is glycerin. A clear liquid, glycerine absorbs water from the air and keeps skin soft and healthy. <sup>3</sup>

Most commercial soap manufacturers remove the glycerine from the soap making reaction and sell it to manufacturers of lotions and moisturizers, which your skin desperately needs after using the harsh detergent soap. They also use synthetic lathering agents, artificial colors, and anti-microbial chemicals, some of which are known to cause cancer. <sup>4</sup>

The alternative to these harsh soaps is to purchase or make handmade soap. They may cost more but they are actually good for your skin and good for the planet, not releasing pollutants into the water system. There are three ways to make soap: the "melt and pour" process creates clear, glycerine-based, transparent soaps. These come in a kit which you can use to make cute soap shapes with your children.

The other two methods are a "cold process" and a "hot process." The cold process takes the most time, and gives the highest quality soaps. This process involves the mixing of oils or fats and lye. This reaction creates glycerine. Herbs and essential oils can be added following the saponification process. The molded soaps need to cure for 4-6 weeks to allow the moisture to escape. The "hot process" adds a cooking step to speed the process. These soaps are ready to use in days instead of weeks.

If you are interested in making your own soap here are two links to help you get more details.

[Handmade All Natural Soap](#) (using cold process) and [Basic Slow Cooker Soap Recipe](#) (using hot process).

**References**

## Meal Planning Ideas - Lunch

1. Plan different types of main dishes for different days of the week. Ideas for meal types include: soups and stews, salads, sandwiches, ground beef, roast beef, chicken and poultry, variety game meats, quick and easy, Mexican, Italian, Oriental, casseroles, vegetarian. If you are cooking without electricity, make your mid-day meal more substantial. Use some of last month's dinner meals too.
2. Plan realistically. Develop a repertoire of a few dishes that can be prepared twice each month and with ingredients that are easily available. Make a shopping list for two weeks, for one month double ingredients, for two double it again and for three months double it again. So for example, 1 can of black beans for a recipe used 6 times in 3 months means you buy 6 cans of black beans. Don't be afraid to switch menus and days for variety.

### Three Month Supply Lunch Menus

#### WEEK 1

- Peanut butter sandwiches
  - peanut butter
  - jelly/honey
  - bread
  - bananas
- Tuna lunch pack
  - small can tuna salad
  - crackers
  - fruit cup
  - cookie
- Last night's BBQ chicken
  - precooked chicken served cold or hot
  - carrot sticks
  - salad
- Canned Stew
  - beef, chicken or Brunswick
  - crackers
  - cheese sticks
- Chili
  - kidney, black or great northern beans
  - canned tomatoes, chili seasoning, onion, garlic
  - ground beef or textured vegetable protein
- Canned Pasta
  - Ravioli, meatballs
  - green salad
- Macaroni & Cheese, canned vegetable
  - Macaroni pasta
  - canned milk, flour, onion, butter
  - multiple choices of cheese (cheddar, cream)

#### WEEK 2

- Clam Chowder
  - canned soup
  - bread/butter
  - fresh fruit
- Tacos
  - browned ground beef or turkey
  - Taco seasoning mix
  - Taco shells
  - chopped lettuce/tomatoes/guacamole
  - sour cream
- Sloppy Joes, canned vegetable
  - Manwich® mix
  - ground beef
  - buns
- Deviled ham sandwiches
  - can chopped ham
  - additional mayonnaise and relish
  - bread
  - watermelon
- Tomato Soup
  - chicken broth, onion, celery, fresh basil
  - plum tomatoes, tomato paste
  - salt, pepper
  - sour cream
- Burgers
  - condiments
  - buns
  - fresh fruit
- Ramen noodle soup
  - left over veggies
  - shrimp or other seafood or chicken
  - tofu pieces



## Powdered Milk

We've written about powdered milk before calling it a [prepper staple](#). Thankfully the production process has improved. One cup of powdered milk provides you with a good source of protein, vitamins A and D, calcium, magnesium and essential fats. It is easier to acquire than having to maintain two cows. As you are shopping for powdered milk be aware of two things: one, instant and regular powdered milk are different. The instant dissolves more quickly in water for drinking but is limited in its other uses. Regular non-fat dried milk can be used to make sour cream, yogurt and cottage/farmer's cheese. Either has a shelf life of three - five years and is very temperature sensitive (store at 50° F or lower.) So plan on using it in cooking. The second thing to know is that a milk alternative is not 100% milk. It contains other ingredients that make it taste better (including partially hydrogenated vegetable oil and high fructose corn syrup) but it will not react in cooking the same way regular or instant non-fat dried milk does.

How much milk to store? Adults who drink 2 glasses per day store 1 #10 can/month; for youth who drink 4 glasses per day store 2 #10 cans per month. **Don't miss the Recipes we've included.** The best way to rotate powdered milk is to incorporate it into recipes that call for buttermilk, sweetened condensed milk, or evaporated milk. Jodi & Julie at [Food Storage Made Easy](#) recommend these substitutions:

**Buttermilk:** Mix up one cup of powdered milk. Add 1 T. lemon juice or vinegar to the milk. Stir it in and wait for 5 minutes. Use in any recipe that calls for buttermilk.

**Sweetened Condensed Milk:** Add the following ingredients to your blender. 1/2 cup of hot water, 1 c. of powdered milk powder, 1 c. of sugar, 1 T. of butter. Blend very well.

**Evaporated Milk:** Mix 1 1/2 c. water with 1/2 c. + 1 T. powdered milk powder. Whisk together thoroughly. Add to any recipe calling for evaporated milk.

Here are some tips for using powdered milk from [PreparednessMama](#)

- In cooked cereals, add 3 tablespoons of nonfat dry milk powder to each 1/2 cup of dry cereal (such as oatmeal) prior to cooking. Use the same amount of water as called for in the package directions when cooking the cereal.
- For a thicker and more nutritious milkshake, add 1 or 2 tablespoons of nonfat dry milk powder per serving.
- Substitute nonfat dry milk powder for non-dairy creamer in coffee and tea for more calcium and no fat.
- Add 1/4 cup nonfat dry milk powder to each cup of fluid milk when making biscuits, muffins, pancakes, yeast breads, cookies and cakes. This will cause your recipe to be firmer and to brown faster. Lowering the baking temperature or reducing the amount of sugar will reduce this browning effect.
- Add 1/2 cup nonfat dry milk powder when reconstituting canned soup. Add 1/2 cup nonfat dry milk powder per can of condensed soup when making casseroles, such as tuna and noodles with cream of mushroom soup.
- Add nonfat dry milk powder when making mashed potatoes, using 1/3 cup per 4 servings.
- Add 1/4 cup nonfat dry milk powder for every pound of ground meat before browning. Add 2/3 cup nonfat dry milk powder for every pound of ground meat when making meatloaf or meatballs.
- Add 1/4 cup nonfat dry milk powder to each cup of fluid milk, or add 1/2 cup nonfat dry milk powder to each cup of water or broth when making puddings, custards, gravies and sauces. This may make the recipe slightly thicker.

## Recipes

## Project Noah -Third Month Assignments



[Project Noah](#)

1. Design an emergency evacuation plan
  - a. Sign up for emergency notification
  - b. Plan for communication - out of town relative
  - c. Learn about school & work emergency plans
  - d. Designate a safe gathering place for all family members
2. Pre-Disaster Preparation: Shutting off Utilities - learn where they are located in your home; do you need a special tool?
  - a. gas
  - b. water
  - c. electric
3. 72 hour Kit
  - a. best container for you - buy one for each family member
  - b. food items - put together food for three days in each kit

c. shelter items - tent, rain ponchos, mylar blanket, hand and feet warmers, and flashlights; seasonal clothing

4. Non-Food Items: hand & body soap- Goals:
  - a. Determine how much your family will need for a year - is this doable?
  - b. Shop for the best prices and buy what you can afford
  - c. Explore alternatives, make your own
5. Short Term: Three Month Food Supply and Menus
  - a. Plan lunch menus and use them
  - b. How much is enough for 3 months? Plan for 90 meals
  - c. Goal - Make one meal a week from your three month supply menus
  - d. Shop for meals for two weeks using your plan and selected menus
6. Long Term Storage Item: Acquire powdered milk, use it and store some

Next Month's topics will be: First Aid/CPR basics and more 72 hour kit contents

Non-food item: Shampoo/Conditioner, including some recipes to make your own.

Long Term Storage: Legumes