

Do It Yourself Handbook: Projects to Support Community and Individual Resilience

Alternative Urban Futures

USP 530 - Spring 2021

Compiled by Professor Raquel Pinderhughes and Heather Samuels
with contributions from students in the Spring 2021 USP 530 course
Urban Studies and Planning Program, San Francisco State
University

Table of Contents

Table of Contents	2
Introduction	4
Community Centered DIY Projects	5
Neighborhood Destination Walking Signs	5
Black Panther Party Breakfast Program	7
People's Store for the Unhoused	12
Resource Bag for the Unhoused	14
Starting a Community Garden	18
Starting a Community Seed Bank	20
DIY Garden Bed Instruction	22
Building a Community Compost Bin Using the Batch Pile Method	24
Building a Household Rainwater Catchment Systems	28
Starting a Community Learning Circle	30
Organizing a Children's Carpool	39
Creating a Local Watershed Protection Group	41
Household Centered DIY Projects	42
Household Cleaners	42
Household Air Filters	43
Unpaper Towel	43
Draft Snake (Window or Door)	44
Food and Gardening Centered DIY Projects	46
Buying Food in Bulk	46
Growing Herbs Indoors	46
Growing Herbs and Food Outdoors	46
Composting and Vermiculture	46
Beekeeping	47
Master Gardener Certification Programs	47
Beauty, Hair, Cosmetics, and Hygiene DIY Projects	48
Cosmetics	48
Skin Care	48
Self-Care Products	48
Hair	48
Hygiene	49

Craft-based DIY Centered Projects	50
Plarn and Plarn Projects	50
Beeswax Wraps	50
Beeswax Candles	52
Homemade Paper	52
Produce and Grocery Bag	52
Disaster Preparation and Survival DIY Centered Projects	54
To-go Bag Kit	54
Household Earthquake Prep	55
Fire Starter	57
Water Filter	57
Neighborhood Phone Tree	58
Contributors	62

Introduction

The backdrop to the spring 2021 semester was the COVID-19 pandemic; it influenced everything we did from our classes on zoom to our discussions in the classroom each week. Since the Alternative Urban Futures course is a forward thinking course, designed to have students think about the kind of cities we would like to live in, it was important to me to have the students engage in conversations with each other not only about new policies and support systems provided by government but also as importantly how people could help one another in community. So before the semester began I worked with Heather Samuels, a senior Urban Studies and Planning major at SFSU, to create a DIY Handbook focused on initiatives and projects that students could both learn from and implement on their own.

Fortunately, the COVID-19 pandemic provided us with inspiring examples of how people were coming together to support each other through mutual aid organizations and programs and spontaneous efforts. We were also fortunate that some of the students in our class were directly engaged in these efforts and could provide us with insights and on the ground examples throughout the semester.

The final project for this class focused on students contributing additional information to the DIY Handbook that Heather and I created before the class began. The student's contributions were powerful and each of them presented their ideas to one another at the end of the class. That gave us an opportunity to talk about ideas ranging from the Black Panther Party Breakfast Program, mutual aid programs and resource bags to support unhoused populations, how to start a community garden, how to start a community seed bank, to neighborhood destination walking signs. Each one of these ideas generated so much interest and conversation amongst us as we shared our thoughts about what could be done right now and how we can build on these ideas to create the kind of cities we want to live in.

I want to thank Heather for the time and effort she put into helping me create this DIY guide and all of the students in the Spring 21' Alternative Urban Futures class.

Professor Raquel Pinderhughes
Urban Studies and Planning Program
San Francisco State University
May 2021

Community Centered DIY Projects

Neighborhood Destination Walking Signs

What is a Neighborhood Destination Walking Sign?

A neighborhood destination walking sign indicates the time it takes to walk from where a sign is placed to a designated location. The idea is to promote walking and biking in neighborhoods.

Why are these signs important?

Because most people rely on cars as their main mode of transportation, people default to driving for even the smallest things. It's easy to overestimate the distance of one park to another or how far a shopping corridor is to our neighborhood. Because of this overestimation of time, people take no chances and drive. Society's unrelenting dependence on cars has caused us to reach a period in our transportation patterns called automobility, the use of automobiles as the major means of transportation. The negative consequences of automobility include the use of non-renewable fuels which emit air pollution contributing to climate change, accidental death caused by cars, disconnection of local communities, decrease in local economies, and noise pollution to name a few.

It is important to understand this because it has been proven that by putting up signs that tell how far or how long of a walk it is to a certain place can actually increase walking rates. These signs can contribute to our individual health if the project is able to fit it in people's daily schedules. Walking for at least thirty minutes everyday can increase cardiovascular fitness, strengthen bones, reduce excess body fat, and boost muscle power. It also strengthens communities and local economies through engagement with your community. Seeing more people on the street within neighborhoods will allow citizens to foster relationships with their neighbors that they otherwise may not have been able to do sitting in private automobiles. It also encourages them to shop close by, thus supporting local businesses. The use of these signs can definitely make an impact at an individual and community-wide level. If it were widespread enough paired with a shift in community values to non-auto oriented modes, it could definitely make an impact at a global scale as well.

Destination Walking Signs Materials:

- Paper

- Cardboard
- Colored Pencils/Eco-Friendly Markers/Colored Pens
- Internet Access, Mapping Application, or a something to record time

Optional:

- Graphic Design software: (Photoshop, Canva, etc.)
- Paint
- Chalk

Instructions:

1. First check your local government's rules about signage posting on both private and public property. It's important to make sure posting signs in your city or town is allowed.
2. For the city and county of San Francisco you can use this link:
<https://sfpublicworks.org/services/posting-signs>
3. Choose a starting point and an ending point. (You'll want to choose places that follow a relatively simple path in a straight/linear direction to avoid confusion.)
4. (If you have access to a computer, phone, or Wi-Fi connection use this method) Open Google Maps or Apple Maps and input your starting point and the destination.
5. Use the information provided and make note of how long it takes to walk from the starting point to the destination. Also take note of any other information you think you might want to provide on your sign.
6. Write information on signs using drawing materials. You'll want to keep it simple so that it's easy to follow and not complicated.
7. Get Creative with it! You can draw or attach images of the location or make any creative choices that you find necessary.
8. Post up your sign. For San Francisco residents, the sign must be attached with non-adhesive material such as twine, string or other non-metal banding material. If you are unable to post signage in your neighborhood, you can post them in your windows or draw on the street with chalk.
9. Repeat the process and make another sign for another location.

Reference Video: <https://youtu.be/BNM-DSM5VqA>

Black Panther Party Breakfast Program

“When the natural disaster is your government.”

This D.I.Y. project will describe the Free Breakfast Program for children by the Black Panther Party for Self Defense (BPP). The Free Breakfast Program required organizing community volunteers ⁵, fundraising for food/supplies ⁶ and political education. ¹ The Black Panther Party was a revolutionary organization founded in West Oakland in 1966 to defend against racist police oppression and state power. ¹ The BPP also established “Survival Programs” to address community needs, for example senior services, health clinics and the free breakfast program. ¹ It is important to understand the systematic racism that Black communities faced during the 1960s and 1970s to understand why a revolutionary organization would be needed to provide breakfast to children. The Fillmore community in San Francisco will be used as an example to describe the tragic challenges Black communities faced from racism and the unique organizing methods it took to organize a D.I.Y to provide breakfast to Black children in this climate.

During the 1940s and 1950s the Fillmore was a thriving Black community.¹⁰ Because of racial covenants and restrictions there were only certain neighborhoods that Black people could live in and congregate. Typically, the most polluted areas of San Francisco is where Black people could live. During the 1940s, the Fillmore was considered a high traffic area and considered undesirable to live. As a result, the Fillmore was one of the few places Black people could live. Fillmore became a prosperous community despite the environmental racism, redlining and other institutional oppression it faced.

A person did not have to leave the Fillmore because there was a Black business in the community to satisfy almost every need. There were Black owned dry cleaning, grocery stores, furniture stores and more. ¹⁰ The Fillmore also celebrating a booming music and culture scene. Black owned night clubs and restaurants lined the street. ¹⁰ The Fillmore became affectionately known around the world as the “Harlem of the West.” Because of segregation at the time, Black performers were not allowed to stay at hotels where white people stayed. When Black jazz legends like Duke Ellington, Billie Holliday, Sammy Davis, Jr. and more came to San Francisco to perform, they stayed at the Booker T. Washington Hotel in the Fillmore. ¹⁰ On any given day a person could see celebrities walking up and down Fillmore Street. People from all over the world came to the Fillmore to experience the authentic Blues and Jazz music scene. The area was quickly becoming the heart and soul of San Francisco and a million-dollar commercial district was blossoming. ¹⁰

The Government in San Francisco was not enthusiastic about an economic and culturally thriving Black community and put policies in place to systematically destroy the Fillmore. San Francisco implemented a devastating land use policy in Fillmore called urban renewal, which

was made up of two project areas. ¹² Western Addition Project Area #1 was initiated in the 1950s and finished in 1973. ¹² Project Area one used eminent domain to seize and bulldoze 108 acres of residential and commercial land displacing more than 8,000 Black and Japanese residents and destroying hundreds of businesses. ¹² Project Area #1 was implemented for the purpose of widening Gearly Blvd. to allow middle class and white residents to drive through Fillmore a couple of minutes faster to get from work to their homes in the suburbs faster. ¹²

The City then implemented Western Addition Project Area #2 which was more devastating than the first project area. Project Area #2 bulldozed 60 square blocks including Fillmore street the heart of the Black commercial corridor. ¹² Tens of thousands of Black residents were displaced ¹¹ and thousands of businesses destroyed. The government built high rise housing projects for Black people to stay in until the community was rebuilt, with the promise that Black people could rebuild their community and businesses. Instead, the government allowed the land to stay vacant for decades. Eventually business owner began to die off. Extreme poverty began to set in and many people who were able to leave moved to other cities and states.

The government controlled most of the vacant land in the Fillmore and when the government finally allowed the land to be developed for businesses, most of the land went to developers and professionals from outside of the community. The government used the land to divide different ethnic groups. The prior Black businesses was divided up among other ethnic groups. This theme was seen in Black inner-city neighborhoods across the country. White supremacy and U.S. imperialism facilitated the process for outside ethnic groups to replace Black businesses. The Koreans were allowed to set up Black beauty supply stores and nail shops in Fillmore. The Chinese were allowed to set up restaurants and dry-cleaning businesses. People from India were allowed to buy the hotels. People from the Middle east were allowed to set up high priced convenience / liquor stores in Fillmore. This was a trend that could be seen in Black inner city neighborhoods throughout the country. This served to exasperate the poverty in the Fillmore and continued the process of wealth being taken out of the Fillmore.

The government then waged a social and political war against the Black community in Fillmore and other communities across the country. The FBI implemented Counterintelligence Program (COINTELPRO) which was designed to prevent the next Black messiah. This meant that the government was trying to prevent another Malcolm X or Martin Luther King, Jr. They did this by framing and assassinating Black community activists and leaders. CIA helped open up drug channels which help flood the Black community with drugs. After that the War on Drugs were legislated by the government which allowed for people to receive significant jail time for minor possession of drugs.

The treatment of the Black community by the government explains why a community would need a revolutionary organization to serve breakfast to children. The government was pushing

back against any activities that would empower the Black community and it took a dynamic organization like the Black Panther Party to fight back and have success.

This section of this document will explain the D.I.Y aspect of specifically how to obtain, prepare and serve children breakfast. The standing policy of the BPP was not to accept government funding,⁵ because they did not want the government having any influence on the Free Breakfast Program. The FBP intended to serve as a model, where eventually teach breakfast program would be run by community.⁵ The strategy was for the BPP to set up the FBP, make sure it is up and running and then allow the local community to take over. This allowed the BPP members to move on and set up another “Survival Program”. The BPP encouraged community members to donate both resources and time.⁵ The BPP understood that the Fillmore was dealing with extreme poverty as a result of government action, so in general the community was expected to provide the volunteers to prepare and serve the food.⁵

Food and other resources were primarily obtained through fundraising from businesses, corporations, grocery stores and organizations.⁶ As mentioned above, many of the businesses were from outside of the community and did not have a vested interest the Black community rebounding from this oppression. Also, many of these outside businesses were under a lot of pressure and obligation from the government not to build constructive relationships with the Black community outside of taking money.

Often food solicited from local supermarkets.⁶ As a result, business that refused to donate was labeled by the BPP as “avaricious businessman” who had little regard for the community and perpetuated hunger by overcharging for food items.⁶ The BPP applied public pressure through Boycotts and the Black Panther Party newspaper.⁷ This strategy worked because local businesses did not want to lose money from boycotts or be publicly embarrassed. So these businesses quickly donated eggs, orange juice and other breakfast items to feed the children.

Because of the success of the Free Breakfast Program, the FBI declared war on the Free Breakfast Program. FBI Director, J. Edgar Hoover opens this war with a video threatening to murder Black youth for being revolutionaries. The results of the FBI was swift and devastating.⁸

The FBI found it difficult to directly criticize the Free Breakfast Program.⁹ The FBI worked to criminalize, discredit and destroy the Free Breakfast Program.⁹ The FBI accused Black Panther Party of extortion and harassment of church and business leaders.⁹ The FBI intimidated local church officials, store owners and landlords into the denying the use of their facilities for the Free Breakfast Program.⁹ The FBI agents went door-to-door telling parents that the Black Panther Party would teach their children racism.⁹ The FBI told parents the food was infected with venereal disease.⁹ The Police broke into churches and mashed up all the food and urinated on it.⁹ The FBI took law into their own hands and secretly used fraud and force to sabotage

constitutionally protected political activity.⁹ The FBI destroyed the Black Panther Party through arrests, murders and forced exile.⁹ The FBI sent fabricated letters to different factions causing dispute.⁹ The FBI sent infiltrators to engage in illegal activities which caused members to be arrested.⁹ By the end of the 1970s, the Black Panther Party and Free Breakfast Program as we know was destroyed.

The State and Federal government created their own free School Breakfast Program as a result of the pressure that the Black Panther Party's Free Breakfast Program created. In California, the Black Panther Party pushed Governor Ronald Reagan's administration to create a state-wide free breakfast program. While the federally funded School Breakfast Program was first piloted in 1966, Congress only permanently authorized it on a wide spread level in 1975. Today government school breakfast programs feed 14.57 million children per year. This D.I.Y. project by the Black Panther Party shows how to serve children breakfast when the government is trying to destroy your community. This D.I.Y also shows how to strategically pressure and force the government to do what it is supposed to do, which is providing breakfast to children that are in poverty by the actions of the government.

Citations

- [1] Paul Alkebulan, *Survival Pending Revolution: The History of the Black Panther Party* (Tuscaloosa, AL: The University of Alabama Press, 2007)
- [2] Raj Patel, *Survival Pending Revolution: What the Black Panthers Can Teach the US Food Movement* (Institute for Food and Development Policy, 18(2), 2012)
- [3] Ricky J. Pope and Flanagan, Shawn T., "Revolution for Breakfast: Intersections of Activism, Service, and Violence in the Black Panther Party's Community Services Programs", *Social Justice Research* 26(4)
- [4] Garrett Broad, "The Black Panther Party: A Food Justice Story," [The Huffington Post](#), October 6, 2016, (accessed December 10, 2016)
- [5] Kit Holder, *The History of the Black Panther Party, 1966-1971: A Curriculum Tool for African-American Studies*, (University of Massachusetts Amherst: ProQuest Dissertations Publishing, 1990)
- [6] Mary Potori, "To Feed the Revolution: The Black Panther Party & the Politics of Food" (Americanist Forum 2013)
- [7] Lauren Araiza, "In Common Struggle against a Common Oppression": The United Farm Workers and the Black Panther Party, 1968-1973 (*The Journal of African American History*, 94.2, 2009)

- [8] Joy Ann Williamson, "The Black Panther Party's Educational Programs". Counterpoints, Vol. 237, 2005,
- [9] Huey Newton, War Against the Panthers: A Study of Repression in America (UC Santa Cruz: Doctoral Dissertation, 1980).
- [10] Pepin, E., & Watts, L. (2006). *Harlem of the West: The San Francisco Fillmore jazz era*. San Francisco: Chronicle Books.
- [11] Bianca, T. (January 2020) How 'Urban Renewal' Decimated the Fillmore District, and Took Jazz With It, Retrieved May 13th, 2021 from <https://www.kqed.org/news/11825401/how-urban-renewal-decimated-the-fillmore-district-and-took-jazz-with-it>
- [12] The Committee on African American Parity. (1993). The Unfinished Agenda – The Economic Status of African Americans in San Francisco 1964-1990. San Francisco, CA: Human Rights Commission of San Francisco.

People's Store for the Unhoused

A “People’s Store” is a mobile mutual aid free “store” which seeks to provide a link between resources and people living outside. Our motto is “Survival Should be Free!”

Step 1: Research

- What services already exist?
- Where are these services located?
- What gaps are there in existing services?
- How can you support, extend, or partner with existing services?
- Talk to your unhoused neighbors. What do they need most?

Step 2: Find your team

- Team should be diverse in age, ethnicity, background, and experience
- Coalition of housed and unhoused members is best practice

Step 3: Values, Frameworks, and Goals

- How will you organize in a way that reflects the world you want to live in?
- What goals are you hoping to accomplish with this work?
- What values/frameworks do you bring with you to this work?
- How will those values/frameworks shape the policies and procedures?

Step 4: Structures, Governance, Mission

- Come to a clear understanding about what services you do and do not provide.
- Community Agreement
- Consensus building and decision making
- Determine where/how you’ll communicate
- Harm/Conflict Response

Guidance on Centering Unhoused People

- Organize with them
- Ask what their needs are, don’t assume
- Incorporate feedback into your structure
- Always get consent
- Develop lasting relationships based on reliability and trust
- Solidarity not charity
- Step 5: Logistics
 - The “store”
 - Truck/van
 - Cars

- Wagons

- Route/Schedule
- Storage
- Drop-off locations for donations

Step 6: Supplies

- Money donations
 - Social media
 - Venmo/Paypal/Cashapp
 - Patreon/Gofundme
 - Raffles, bake sales, yard sales
 - Be mindful of taxes
- In-Kind donations
 - Social media
 - Local businesses
 - Donation drives

Step 7: Training

- Task-specific training
- Trauma-informed communication
- De-escalation
- Narcan/Naloxone/Harm redux

Step 8: Network

- Make connections with other mutual aid groups and services in town
- Expand services
- Coordinate efforts

Resource Bag for the Unhoused

What is a “Resource Bag” for the unhoused?

A resource bag contains items that unhoused individuals are in need of, free of cost. These bags can be handed out by individuals directly to those unhoused or can be donated to shelters and collected by unhoused individuals there. Either way works. The bags work as a reminder to those unhoused individuals that their lives are valued and important, and reminds them that there is hope in the world.

How to Organize

1. Assemble team members that are willing to go out and collect donations and create the helping bags
2. Put together the bags with donated goodies that the unhoused community desperately needs
3. Pass out bags to unhoused individuals living within your community
4. Collect information from those unhoused individuals on the necessary items that they are in need of next
5. Relay information back to team members and collect those items
6. Repeat steps 2-5 every week to strengthen the unhoused individuals living within our community.

Examples of Basic Items in the Bag:

- | | | |
|------------------------------------|--|--|
| ● Face masks | ● Tinctures (to boost the immune system) | ● Sleeping Pads (store-bought or handmade out of plastic bags) |
| ● Reusable water bottle | ● Lip balm | ● Bucket (release of bodily fluids) |
| ● Snacks (crackers, cookies, etc.) | ● Shampoo | ● Feminine Care Products |
| ● Hand sanitizer | ● Tissues | ● Tents |
| ● Socks | ● Lotion | ● Condoms |
| ● Bandages | ● Blanket | ● Clean and sterile needles |
| ● Deodorant | ● Books | ● A letter |
| ● Comb | ● Soap | |
| ● Gift Cards | ● Gloves | |
| ● Toothpaste | ● Beauty products | |
| ● Toothbrush | | |

Example of Letter in Bag

“Hello Friend,

You have just received a bag. In this bag is a handful of useful amenities to keep clean and stay comfortable. These bags were handcrafted by fellow members of the community that want to ensure that your life is treated with the utmost respect it deserves. If you are in any need of resources to help yourself, please don't be hesitant to go to the locations listed on the back of this letter for food, shelter, clothes, showers, or anything else that will make you more comfortable.

You are amazing, you are valued, you are loved, and I am so proud of you!

Love, Unhoused Helpers”

Back of Letter:

1. MSC Homeless Shelter: 525 5th Street
2. Next Door Shelter: 1001 Polk Street
3. Mission Neighborhood Resource Center: 165 Capp Street
4. CityTeam San Francisco: 164 6th Street
5. Embarcadero SAFE Navigation Center: 555 Beale Street

Drop-Off Locations for San Francisco

1. MSC Homeless Shelter: 525 5th Street
2. Next Door Shelter: 1001 Polk Street
3. Mission Neighborhood Resource Center: 165 Capp Street
4. CityTeam San Francisco: 164 6th Street
5. Embarcadero SAFE Navigation Center: 555 Beale Street

Fundraising and Donations

What is Crowdfunding?

- Addresses a problem that needs to be solved
- Essentially pulling people from all over the world to collaborate and move a common goal/initiative forward
- Crowdfunding is using the internet to collect small amounts of money from a larger group of people.
- People typically use many platforms on the internet such as Gofundme or Patreon
- People can also donate goods entirely through mail or Amazon Wishlists

How to Crowdfund

- State your initiative/intention/what the funds will be used for
- Create a call to action, through asking for help from many people on a certain platform.
- Gofundme is the most prominent platform as it is made with the purpose of crowdfunding
- If people cannot donate, the call to action can be to share with the people around them.
- People can also volunteer their time to distribute or organize the distribution, which also helps the cause.

Platforms to use

- Gofundme
- Kickstarter
- Patreon
- Venmo/Zelle/Cash App
- Facebook/Personal Social Media
- Taking face to face with people you know
- Canvassing

*Large companies like Target, Home Depot, and Trader Joes are more than happy to donate items to worthy causes

Example Letter to large company:

Unhoused Helpers

1600 Holloway Avenue

San Francisco, CA 94132

(XXX) XXX-XXXX

Unhousedhelpers.org

April 28, 2021

Target

223 Winston Drive

San Francisco, CA 94132

Dear Friends,

We are a group of community members coming together to help some of the most vulnerable people in our society. It is no secret to anyone living in the Bay Area that the unhoused population is in need of some assistance. Not to mention, the pandemic has only made it harder for these individuals to acquire basic necessary items in order for their survival. It is time for the community to come together and help anyway possible. The purpose of this group is to nurture and care for the unhoused population residing in San Francisco. This is done by producing bags that can be handed out to the unhoused individuals; in these bags would be necessary and

valuable items that they are in dire need of. Items included are reusable water bottles, face masks, hand sanitizer, shampoo, lotion, socks, and much more. We are asking for your help during these difficult times. With your generous help, we could make our most vulnerable population feel safer, comfortable, and more respected. Any donations help this cause. Nothing is too big or too small to make a difference in these people's lives.

Thank you for fighting for the humanity of the unhoused population.

Sincerely,
Unhoused Helpers

Starting a Community Garden

Community gardens are an excellent way to address both food deserts and poor nutrition in low-income communities. With the growing popularity of urban farming more and more governments are opening up public spaces for community gardening. Beyond the material benefits, community gardens also give people a place to socialize and truly get to know their community members.

Materials:

1. Gardening tools(buckets, rakes, trowels, etc.)
2. Plywoods.
3. Spray bottles.
4. Garden hoses
5. 2x8 plywood(for if you want to build raised beds).
6. Seeds.
7. And of course...land!

Steps:

1. Reach out to neighbors and friends about starting a garden. Gauging interest is a crucial step; gardens are hard work and have high turnover, so it's important to ensure you have the numbers you need to sustain it.
2. Scout a plot of land and figure out if it's state or privately owned. Most community gardens are on state land, private land is atypical, but does sometimes happen. It's important to send dirt off for analysis for heavy metals and pH balance. Ideally, the land should be mostly flat, although terraces can be an option for slightly sloped terrain.
3. Contact your local utility to see what utilities are currently connected to your plot of land. On land owned by a state, the water and electrical utilities will often come out and assess the site for free. If you do need infrastructure installed, the utility will be able to help you set it up and ensure everything is up to code.
4. Sign a lease. Most community gardens are on state-owned land are leased for very low rent, often between \$1 to \$5 dollars a month.
5. Plan your garden. Involve the community, but it is a good idea to speak to a Master Gardener or Landscape Designer. Once you have solidified your plans it's important to get started right away, overplanning is a common mistake many new gardeners make.

6. Create a realistic budget and search for funding like grants or fundraising. Things like seed-saving, community donations, and Amazon wish lists are a great way to offset costs without requiring large amounts up front from donors.
7. Get planting! Work with the other garden members on deciding what may work best for your community.

Starting a Community Seed Bank

Being that the creation of a seed bank is more like designing an abstract initiative rather than a tangible good like plarn or various herbal tinctures, the instructions for the creation of a seed bank will reflect that.

Step 1: Identify who will be using the community seed bank, how they will access it, and goals of your seed bank.

Will this bank be utilized only by your neighbors or anyone in your city? What is the most effective way for people to reach the bank? A neighbor's shed? A farmer's market stall? Will your seed bank be a casual exchange of gardening resources to neighbors or will it be a city-wide resource requiring careful upkeep and responsibility?

All these questions are vital in that they build the foundations for the role and purpose your community seed bank will achieve. Additionally, these questions will define the scale of your seed banking operation. Depending on the size and scale you have for the goals of your bank, it is important to prepare accordingly and be ready to assume the responsibilities involved.

Step 2: Creating the physical seed bank.

The physical space seed banks require are actually small and simple. All you need is 4 different materials:

- Seeds
- Labeled envelopes or existing seed packets:
 - This will house the different seed types as well as some indicators to describe such things such as the date added, growing instructions, growing difficulty level and any notes that may be useful. The different organizations of seeds and seed packets should be dependent on the community's needs. Creating an effective organization system is key to support the prolonged and widespread use of the bank.
- Storage container:
 - Which is used to house seed packets safely and for long periods of time. Glass or hard plastic will keep out pests while also preserving the quality of seeds.
- Seed bank manual:
 - The seed bank manual is necessary for larger seed bank collections. A larger seed bank utilized by a larger population may require instructions on the organization of seeds and packets, bank etiquette, gardening resources or useful community seed bank information. The manual essential for the navigation and stock assessment of the bank.

Step 3: Build your community

Community is the focal point of seed banks. Building networks of people and organizations will result in your seed bank growing and enduring over time. To be able to reinforce this sense of community various marketing tactics may be employed. The creation of easy to read brochures may attract others to contribute to your seedbank or provide instructional information on how to properly save seeds or use your community seed bank. Reach out to various gardening related businesses and organizations or even nearby established seed banks to seek donations and contributions to your seed collection. Advertise your service on social media, social circles, farmer's market and public areas. Pass the word around that seed banking is a useful and sustainable gardening practice.

DIY Garden Bed Instruction

Step 1: Materials Needed

- 2 2x8 wood board
- 4 block-sized pieces of 2x4
- A screwdriver
- 20 screws (per bed)

Step 2:

Nail two 2x4 blocks onto each edge of a 2x8 wood board (make sure the 2x4s are flush/parallel to the 2x8 wood boards like in the image below) and repeat this process with the second set of 2x4s and a second 2x8 wood board that you have



Step 3:

Once the 2x4s have been nailed onto both 2x8 wood boards, drill one of the two 2x8 wood board with the attached 2x4s onto one of the 2x8 wood boards that do not have 2x4s attached to them & repeat this process with the two 2x8s that remain.

Step 4:

Once the layout of your garden bed is framed, you will need to add an extra set of nails to hold the 2x4s as well for extra support.

**Step 5:**

Once the extra nails have been drilled for extra support, begin by setting your bed in the desired location and begin the process of building a community garden!

Link to our video for reference: <https://www.youtube.com/watch?v=eMQ1G4hTS1w>

Building a Community Compost Bin Using the Batch Pile Method

Composting is the natural breaking down of organic waste. And it can help in:

- Waste Management
- Nutrient Recycling
- The Soil/Land degradation- (which according to the UNCCD 1/3 of global land surface is severely degraded)
- Low soil organic matter.
- Composting can also support SDG's 12 and 13
- According to the EPA, 35.3 million tons of food waste went to landfills in 2018
- Also composting sequesters carbon, conserves water, reduces reliance on chemical pesticides and fertilizers, and helps prevent nutrient runoff and erosion.



Materials for Composting

- Small area outside. (Ideal size is at least 3' x 3' x 3')
- Repurposed materials for the actual structure
- Browns (examples above)
- Greens (examples above) *
- Shovel
- Compost thermometer (highly recommended)
- Water

be careful with stuff like onions and oranges which tend to make it a little acidic, if you use them, you can add ashes from a fire pit or grill to help raise the pH.

Materials for composting are really flexible, and there are many different ways to do it, some of the main ways are vermicomposting, aerobic and anaerobic composting. You can even do it indoors. This instructional is an aerobic batch pile method of compost which means it has oxygen, so that means that the compost is turned regularly and is also watered.

The batch pile method means that greens and browns must be added for a few months, while hot composting is done quicker.

*This example is using free materials



Materials for the bin

- Free pallets (offerup, facebook market, warehouses)
- Cardboard to cover the holes
- Something to connect them (zip ties, nails/screws, old clothing, etc)
- Optional: sand paper

These pallets are sourced for free using an online exchange app. These can also be sourced for free through local businesses who use pallets in their operations who usually end up throwing them out anyway.

First, clean off the pallets and sand them down.

Next, dig them into the ground just a little bit so they stay put. Put them together like in the images above, they are tied on the corners with some old cloth. (This can also be done with zip ties or screws)

Lastly, use cardboard to cover up the larger spaces.

Adding greens and browns

These are typical food scraps that can be added to compost. Keep these in the fridge and take it out every 3-6 days to reduce time commitment to the compost project, or add the food scraps as they are created.



Mix about 1 part browns to 3 parts greens, as shown on the image below, the brown stuff in this compost is egg carton.



Make sure to mix it well with a shovel, to help it break down. The image above is what the batch looks like after just a couple of weeks. It should not be dry, but not too wet either. It should be like a wrung out sponge. If it is too dry it will not decompose, yet if it's too wet it may get slimy and smell.

Depending on where you live the watering will be different. This batch uses about a gallon when adding new organic materials, unless the compost is still moist then no water is added at all.

Cover the top with browns and some cardboard to; keep the pests away, help the compost stay warm and keep the excess rain away.

This process can continue for about 2-8 months.

Once the batch is ready or the desired quantity is reached, stop adding new organic material to the compost. Turn it about every other day and water as needed. If it gets above 150 degrees* water the batch and turn it to aerate it. After this it should only take a couple of weeks to a month until it is all broken down and can be used in your garden.

*Compost should be at around 150 degrees, getting it to this temperature makes sure that all the pathogens are gone.

Building a Household Rainwater Catchment Systems

I. Global Water Crisis

There is a global water crisis happening today. Sixty-six percent of the world's population suffers from severe water scarcity and by 2050, if we do not improve water management, the percentage may rise another 30%. With 1.42 billion people living in areas of high or extremely high-water vulnerable regions, there is a global concerted effort to combat.

In a study by the United Nations, over half of earth's natural wetlands have dried up in the last hundred years and natural water sources are quickly dissipating. An example is the Aral Sea in middle Asia. Once considered the world's fourth largest water supply, by 1997, 90% of the fresh water has dried up from harmful irrigational practices causing the area to erode leaving only 10% of saline water.

II. Regional Water Crisis

The problem referred to as "water stress" is when the demand for water exceeds the supply by 40%. When rising population meets global warming, water supply and human consumption work inversely. It was reported by Associated Press in April 2021, the water supply in Hoover Dam is expected to plummet low enough to declare an official water shortage for the first time in US history. In California, April of 2021, the state has declared a regional drought emergency in areas of Sacramento currently at 43% water capacity. Lands near the Russian River have reported began sinking due to excessive water use.

III. Rainwater Harvesting

Earth is made of 97.5% water. Of those, usable freshwater primarily comes from groundwater, fresh lakes, inland seas, and rivers. According to The National Groundwater Association, this leaves approximately 0.6% of freshwater for human consumption. With global warming and the level of water toxicity, the issue of water stress has become dire as well as a safety hazard. A solution must be inclusive of both water management and public safety.

Rainwater harvesting is a safe and practical way of preserving and reusing water without tapping into our natural water source. By using rain water collected from storm drains, the possibility of water management can be used for both commercial and domestic use.

IV. How to Build a Rainwater Catchment

Five primary components to a Rainwater Harvesting System:

1. Catchment, typically roof top.
2. Conveyance, typically a gutter.
3. First flush diverter. Rainwater is relatively clean. The toxicity is usually from layers of dirt, dust and other atmospheric pollutants in our roofs. So a “first flush diverter” flushes away the first wave of rainwater allowing the water to work as a cleaner.
4. Filtration. The type of filtration can be the difference between having potable water or water for domestic use.
5. Storage, typically a barrel or underground storage.

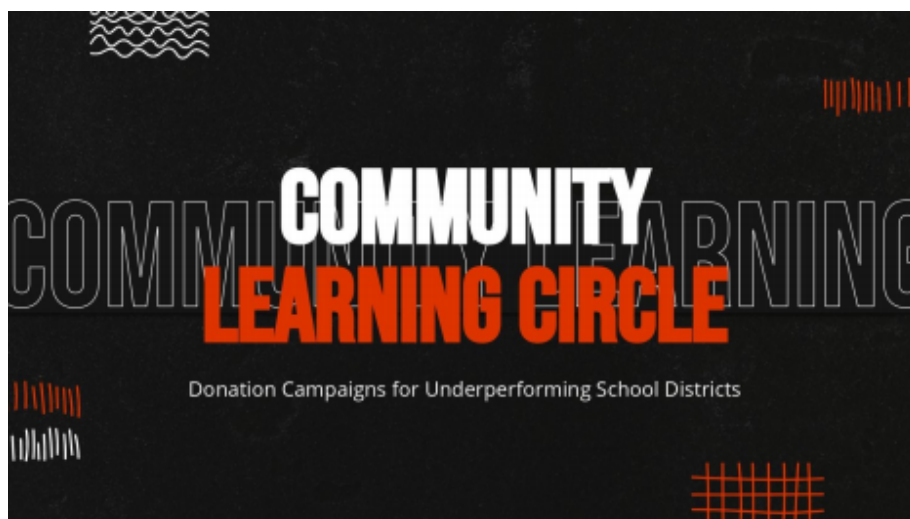
Citations

“Groundwater: Information on Earth’s Water.” Default, www.ngwa.org/what-is-groundwater/About-groundwater/information-on-earths-water#:~:text=The%20earth%20has%20an%20abundance,that%20is%20useable%20is%20unattainable.

United States, Congress, Kabin, Robert. Rainwater Harvesting 101, 2008.

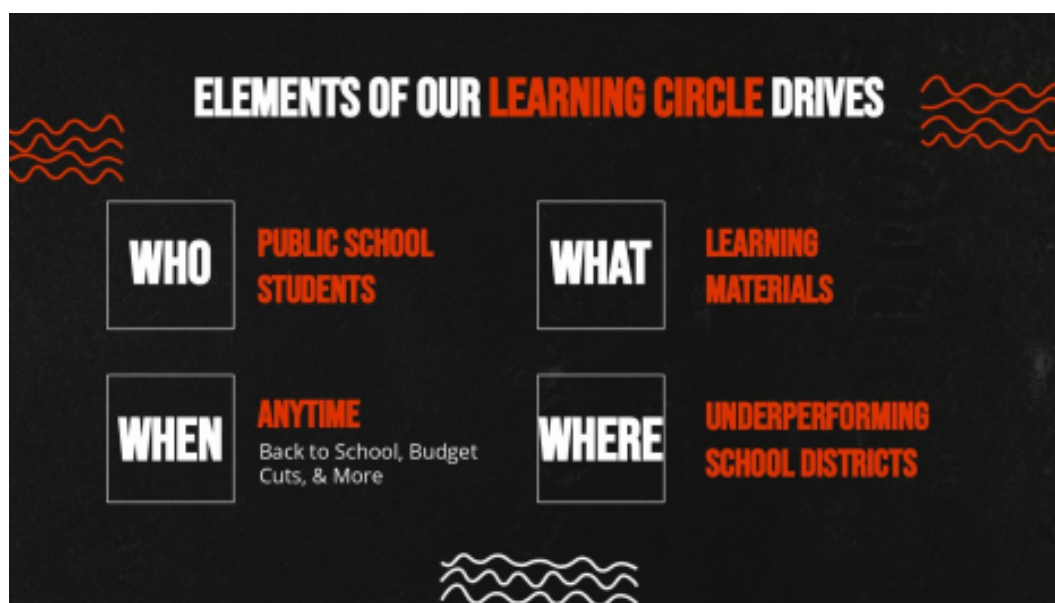
“US West Prepares for Possible First Water Shortage Declaration.” Associated Press, 17 Apr. 2021.

Starting a Community Learning Circle

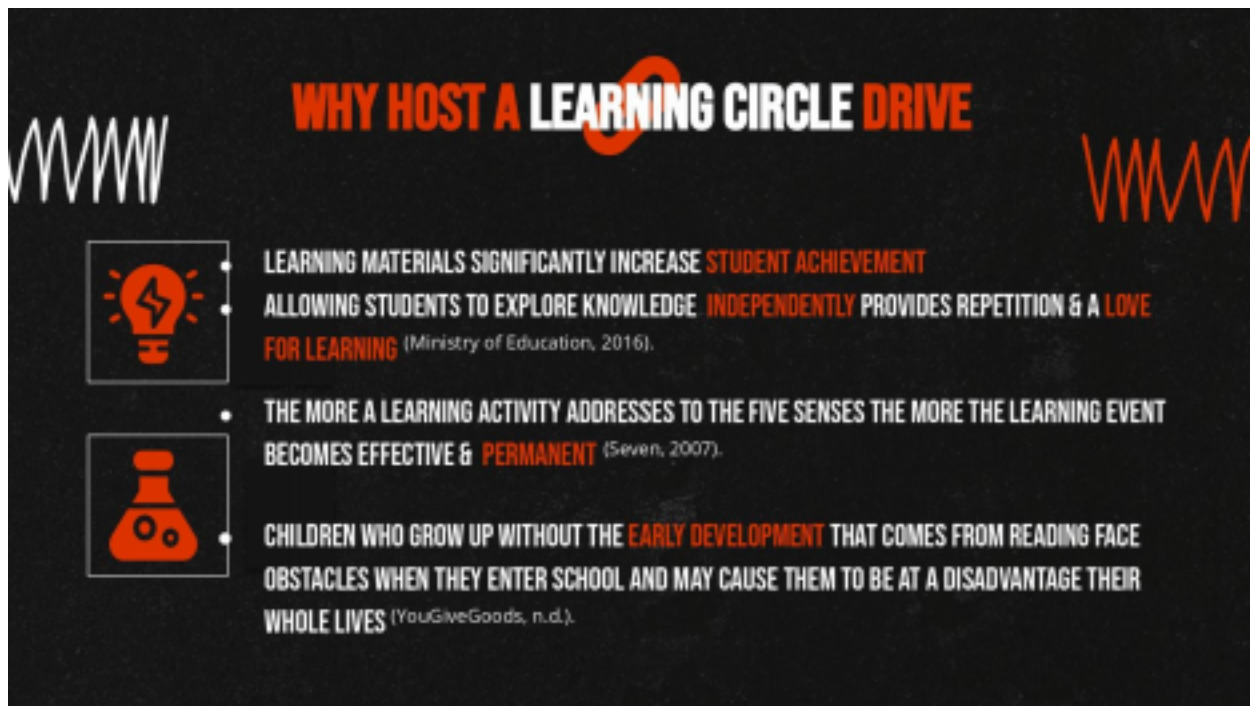


Inspired at the crossroads of a giving circle and a book drive, a community learning circle can be utilized as a framework to run donation campaigns for underperforming school districts or any other applicable group. This new concept aspires to encourage do-it-yourself projects that close institutional knowledge gaps for participants in the societies and communities that they are often expected and/or forced to compete in. There are ten suggested steps to follow and consider when planning, operating, and completing a successful community learning circle.

Community learning circles can be as intermittent or as ongoing as the founder and/or community desire. However, the elements of a learning circle drive are identified to assist the founder with determining the 'who,' 'what,' 'when,' 'where' and 'why' their group is being hosted. A learning circle drive for donations and materials can be performed at inception or at any time that needs arise.

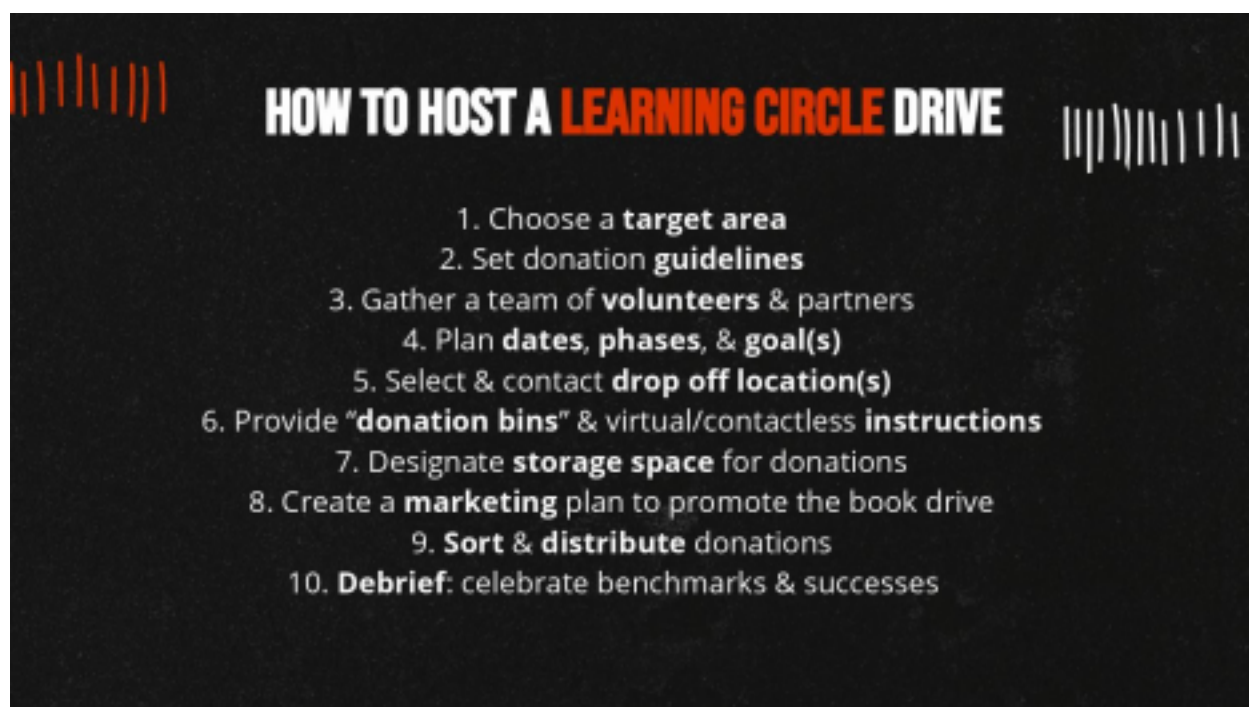


- **Who** a learning circle impacts will often be *public school students*.
- **What** a learning circle drive usually consists of is the collection of *learning materials*.
- **When** a learning circle drive is completed is *anytime*. Popular timing can include during back to school, after budget cut announcements, before summer break, or during the various national learning and book holidays.
- **Where** a learning circle can start is in underperforming school districts. However, there are truly **no limitations** to the elements and purpose of new learning circles!

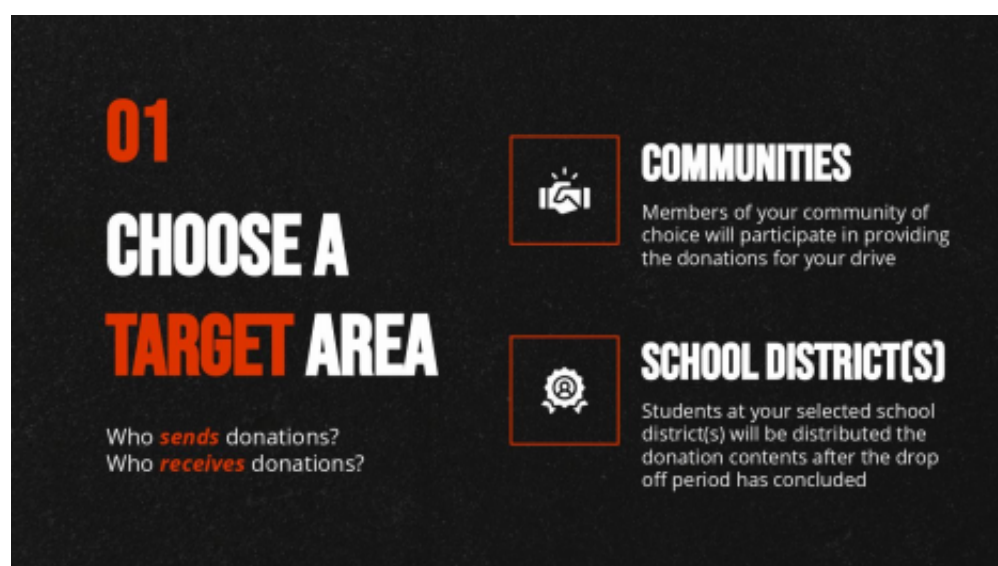


For a learning circle that aspires to benefit public school students in underperforming school districts by providing them with free learning materials, some essential reasons **why** this type of learning circle is hosted include the facts that:

- According to the Ministry of Education, learning materials *significantly increase* **student achievement**.
- Allowing students to *explore knowledge* independently provides them with repetition & grows a **love for learning** from an early age.
- Studies have also found that the more a learning activity addresses the five senses the more the learning event becomes *effective* and **permanent**.
- Furthermore, children who grow up without the **early development** that comes from reading face obstacles when they enter school that may cause them to be at a *disadvantage* their whole lives.



The **10 steps** to host a learning circle drive include¹⁾choosing a target area,²⁾setting donation guidelines,³⁾gathering a team of volunteers,⁴⁾planning dates, phases, and goals,⁵⁾selecting and contacting drop off location(s),⁶⁾providing “donation bins” and virtual/contactless instructions,⁷⁾designating storage space for donations,⁸⁾creating a marketing plan to promote the book drive,⁹⁾sorting and distributing donations, and¹⁰⁾debriefing (celebrate benchmarks & successes).



Step 1: Choose a Target Area – This step focuses on identifying who sends donations and who receives donations. In most cases, members of your community of choice will participate in

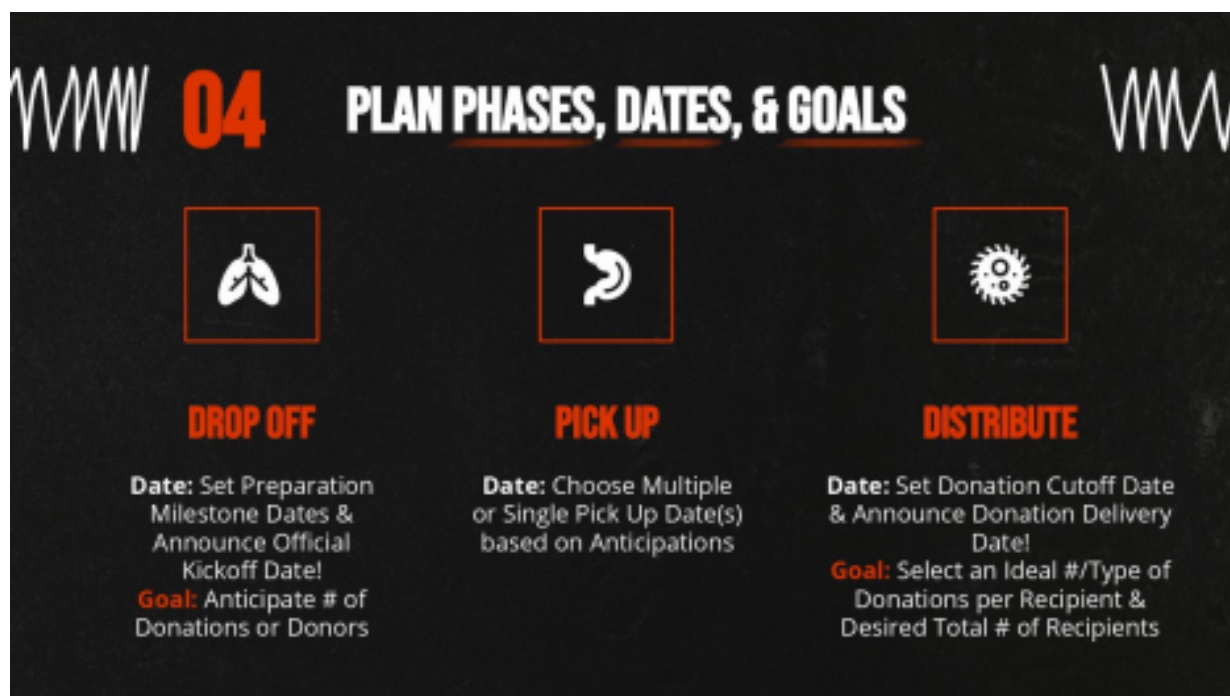
providing the donations for your drive; and students in your selected school district(s) will be provided with the donation contents after the drop off period has concluded.



Step 2: Specify Donation Guidelines – Determining the donations that the learning circle would like to receive is important to identify to the community *before* the drop off period begins. For modern school districts, suggested donations to the learning circle include **books** (such as new and gently used **textbooks**, workbooks, and learning literature), **learning** board/card **games**, **educational** video **games**, and **school supplies** (such as student, teacher, and classroom supplies and resources). Financial donations can also be accepted; however, *clear internal guidelines* should be set for how to use the collected **cash** *before* donations begin.



Step 3: Gather Volunteers – The largest that the learning circle grows, the more important that a supportive group of founding members will be. These partners and volunteers can include community members, liaisons, sponsors, and other applicable members that help with logistics and management of the donations and distribution.



Step 4: Plan Phases, Dates, & Goals – Learning circle drives will traditionally have three phases to plan related dates and goals. One of the first major goals of the campaign will include *anticipating the number of donations and/or donors* to make the planning of next phases

properly supportive of intake. After all logistics and preparation milestone dates have been set, it is time to announce a kickoff date to the community! This will start the ***first major phase: Donation Drop Off***. The number of donations will also determine the frequency of volunteer visitation to pick up location. *During* the drop off phase, multiple dates or a single date will be chosen for the ***second phase: Pick Up***. Also, make arrangements for impromptu pick up dates in case donations exceed expectations and/or drop off location storage. More important dates to announce will include the donation/campaign cutoff date and the donation delivery/distribution date. It is also important to select an ideal number and/or type of donations per recipient and the total number of recipients before the ***final phase: Distribution***.

05 SET UP DROP OFF LOCATIONS

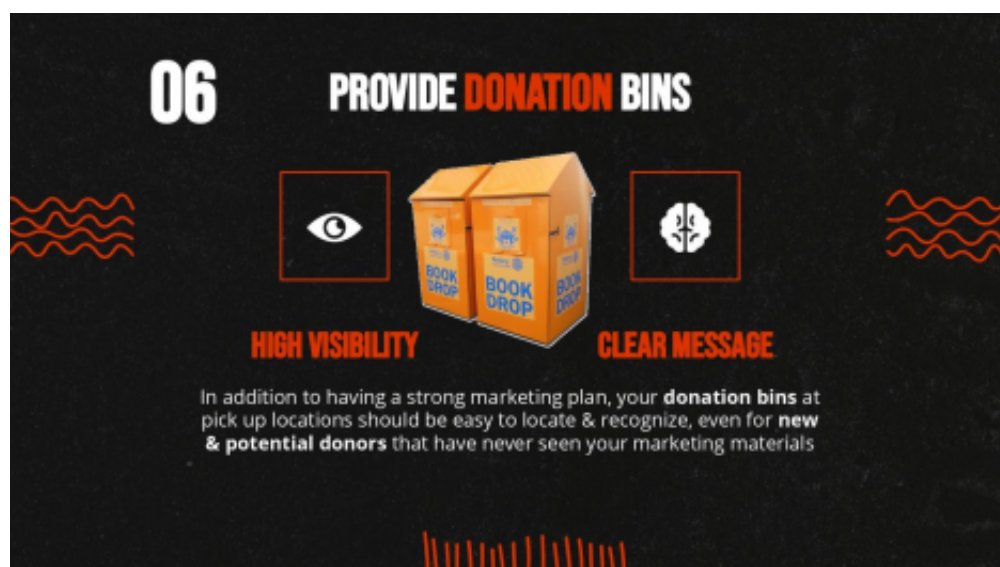
STORE COUNTER
In store drop offs can provide a common network of location options for donors

LIBRARIES
Donors will like that learning materials already commonly come to libraries, schools, etc

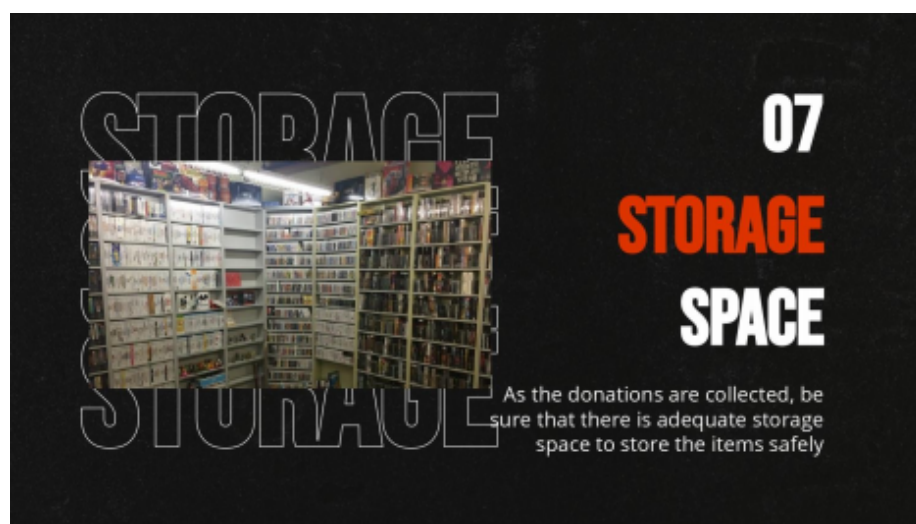
ONLINE
Virtual, contactless donations can include cash or mail in options for distant donors

The infographic features a central map of the United States with red lines pointing to three images: a store counter with a person, a library with bookshelves, and a hand pressing a green 'Donate' button on a keyboard.

Step 5: Set Up Drop Off Locations – Drop off locations should be convenient for donors to reach. Some popular drop off locations include local **store counters**, **libraries**, and **online**. In store drop offs can provide a common network of location options for donors if the store has more than one storefront across the community. Donors will tend to like to donate at places such as libraries and schools because learning materials already commonly come there. Virtual, contactless donations can include cash or mail in options for distant donors or donors who prefer ultimate convenience to skip visiting a physical location.



Step 6: Provide Donation Bins – A key part of your marketing and branding will include the design of the donation bins where the community places donations. To complement the overall story and purpose of the learning circle, branded donation bins at the pick up locations should be easy to locate and recognize – even for new and potential donors that have never seen your other marketing materials.



Step 7: Storage Space – Based on the anticipated volume of donations and desired number of recipients, adequate storage space to safely keep the donation items until distribution should be predetermined. For financial/virtual donations, this will also include “storing” the cash in a campaign bank account until it is used for learning circle expenditures. Storage and documentation of learning circle revenues and expenses should also be kept and considered.

08 CREATE A MARKETING PLAN

Promote your learning circle campaign **online**, **near drop off locations**, & especially **throughout the community and school districts in your target area**.

On all marketing materials, make sure to include:

- **WHAT** to Donate
- **HOW** to Donate
- **WHO** can Donate
- **WHY** to Donate
- **WHEN** to Donate
- **WHERE** to Donate

Step 8: Create a Marketing Plan – It is important to ensure that the recipients of the learning circle donations are served as intended by an *informed* community. The community must know about the learning circle drive to participate! Consider promoting your learning circle campaign **online**, **near drop off locations**, and *especially throughout the community and school districts in the target area*. On all marketing materials, make sure to include: **what** to donate, **how** to donate, **who** can donate, **why** to donate, **when** to donate, and **where** to donate.

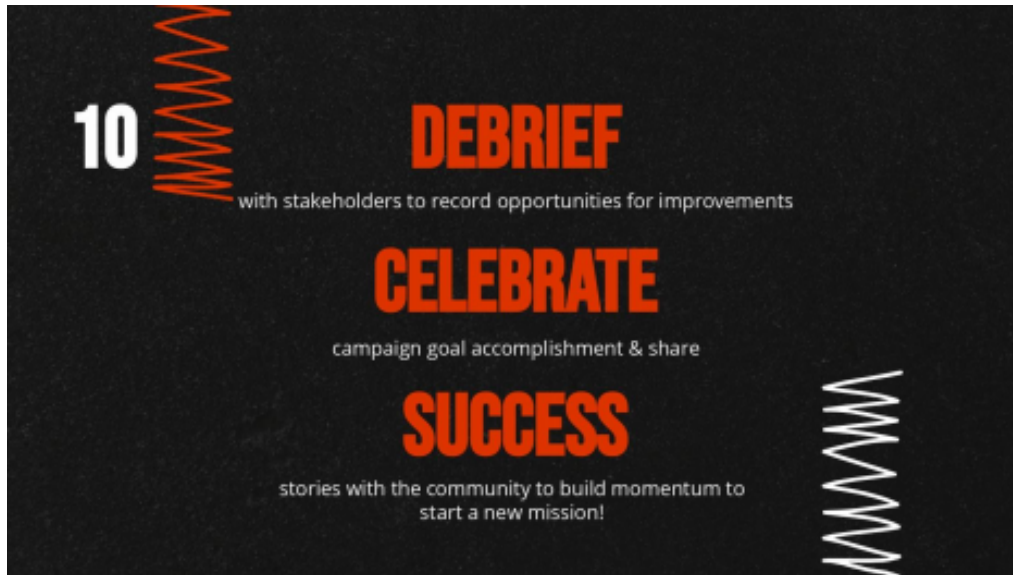
09 SORT & DISTRIBUTE DONATIONS

GRAND FINALE! Depending on your learning circle goals & plans, recipients get to receive their donations:

- at an **Event**
- in **Private**
- or anything in between that is suitable for the community!

GIVE

Step 9: Sort and Distribute Donations – The final phase of sorting and distributing donations will most likely require the most volunteers, supplies, and time of all phases. Depending on your learning circle goals and plans, recipients can receive their donations at an event of any size or as a private and personal gift. Modify this main step in a way that is most suitable for the community and the learning circle members at the time of distribution.



Step 10: Debrief & Celebrate Success – In this final step, debrief with stakeholders to record opportunities for improvements. Celebrate campaign goal achievements, and enjoy sharing success stories with the community to build momentum to start your next mission!

Organizing a Children's Carpool

Resources for starting a children's carpool:

Children's Carpooling Apps

- [GoKids](#) (App for parents seeking out carpool options for their children)
(Note: Officially discontinued as of 05/2021.)
- [CarpooltoSchool](#) (Another app for parents seeking out carpool options)
- [HopSkipDrive](#) (Rideshare service dedicated to transporting children)

Data Used for Powepoint Presentation

- [HopSkipDrive 2021 State of Transportation Report/Survey](#)

Tips on Starting a Carpool

- [How to Start a Carpool](#) (HowCast video on starting a standard carpool not aimed at children but still relevant information.)

DIY CARPOOL

Finding and Organizing a Network

1. Find people interested in joining the carpool.

Beyond personal family and friends, good places to gauge for interest in a children's carpool can include child(ren)'s school(s), work, libraries, afterschool centers, etc. Some schools allow parents/community members to advertise (such as fliers) in the main school office. For initial set-up, it is recommended to start with 8-10 families in a carpool.

2. Determine safe drivers.

Safety is important when starting a carpool and cannot be overlooked. An easy way to weed out some who are unfit to participate is to make safety a prerequisite to joining the carpool. All interested drivers must have insured vehicles, properly registered vehicles, and valid licenses. Check to see if any interested party is listed on sex offender databases. Since it is not exactly easy to publicly obtain someone's personal information such as background checks and driving records, (this will vary by state) In most US states, you can obtain a copy of your driving record from the DMV. It is recommended that interested parties obtain and submit this to whomever is organizing the carpool.

3. Understand individual family needs.

It is good to keep in mind that regardless of if children attend the same school, it does not mean that they will have the same schedule or transportation needs. Children of different ages and grades will have differing schedules, some children may have extracurricular activities and/or after school programs. This will require a flexibility in the needs that the carpool must meet. Accommodations must be considered— do any children require car seats? Any medical needs that should be addressed? Any specific needs and interests of each child/family involved must be thoroughly planned out and understood amongst the network.

4. Establish necessary rules and protocols.

Rules regarding the carpool must be clear and concise amongst all parties involved. Methods of contact should be clearly established, is there rules regarding punctuality/tardiness? Is there disciplinary action for tardiness or absence? If a driver is not available for their expected turn to carpool, are there any back-up options available? Punctuality should be of high importance, if members of the carpool are not available to carpool, this impacts the involved families greatly.

5. Determine Pick-Up points.

In a carpool of more than two families, it is likely that there will multiple places that children may need to be picked up and taken to. School is likely one of those places, but sometimes there will need to be alternatives, especially in the case of conflicting scheduling. A way to minimize hassle regarding pickup (ie. In the morning) is to have all involved parties meet up at a single point, such as a designated house (possibly the house of the current driver) a street corner, etc.

6. Establish payment plan.

It is also important to consider whether money should be involved in the operation of the carpool. Should there be pooled funds for transportation and labor costs? Should there be an appointed treasurer, or should drivers concern with costs regarding their own turns carpooling. No-money plans can be considered as well.

7. Keep communication open and flexible.

Being mindful of everyone's needs is important when maintaining a carpool, and these needs are liable to change over time. Effectively communicating allows the group to handle any potential issues to keep the carpool working as efficiently and non-stressful as possible.

Creating a Local Watershed Protection Group

A watershed is an area of land where water from rain, snowfall, and run-off flows down to the lowest point and ends up in the same place. It can be thought of as a funnel. The water eventually flows to the ocean but it can also end up in lakes, rivers, creeks, basins and be extracted by humans. And this also includes underground aquifers, where water percolates through the ground and replenishes groundwater supply .

A watershed group is simply a group of people who want to preserve and protect a local body of water through group projects, community engagement, and advocacy. The steps to creating a watershed group are very simple and starts with finding a group of concerned people. Next, this group should start organizing meetings to talk about missions and goals. And lastly the group should start off with an easy project to generate success and excitement.

Here are the steps to forming a watershed group:

1. Assemble a group of people who care

The first step is assembling a group of people who care about preserving and protecting watersheds. These people can be found in any corner of society but it might be helpful if the group is diverse and inclusive, per the Healthy Cities Wheel, which encourages having members of different backgrounds, ages, careers, and educations.

2. Organize meetings

Next, meetings need to be organized. The first few should be dedicated to getting the group on the same page through generating a mission statement which is the overarching goal of the group. During these meetings, challenges should be assessed such as how to get funding for projects, how to attract volunteers, and how to network with other organizations that can help your cause. A strategic plan needs to be creating to actually start doing things in the outside world.

3. Start with an easy project

Lastly, the group should start off with an easy project such as creek clean-ups, local workshops where you talk about things like watersheds and using water conservation, and attending city hall meetings to help inform the community and spread the word.

Household Centered DIY Projects

Household Cleaners

Window Cleaner

- ¼ cup of white vinegar
- 1 tbsp of cornstarch
- 2 cups of warm water

Toilet Cleaner

- ¾ cup baking soda
- ¾ cup white vinegar
- 10 drops of tea tree oil
- 10 drops of lavender essential oils

Multi-Purpose Cleaner

- ¼ cup of white vinegar
- 1 tbsp baking soda
- 1 litre of hot water
- ½ a lemon

Citrus All Purpose Cleanser

- Ingredients
 - Peels from lemons, limes, grapefruits and/or oranges (use organic for an organic cleanser)
 - White vinegar (organic for an organic cleanser)
 - Mason jars with lids, or any airtight container
 - Spray bottle
 - Mesh strainer
 - Distilled water

Instructions

- 1) Before peeling your citrus, be sure you have cleaned it with warm soapy water and have removed any stickers. You can use any variety or combination of citrus that you like. I prefer to do the peeling by hand to eliminate the possibility of any fruit getting into your cleanser base (sugar = mold).
- 2) Fill a clean mason jar, or airtight container, with the peels and pack as tightly as possible. Jars with a tapered opening work best, so that you can place a larger peel at the top to block the smaller pieces from floating above the vinegar, which in my experience can lead to mold.

- 3) Once your jar is packed, fill with vinegar until all of the peels are completely submerged.
- 4) Screw the lid on tightly and store the jar in a cool, dark place for two weeks. I like to check it every few days to be sure that the peels are still submerged, and no mold has grown on any exposed pieces.
- 5) After two weeks your cleanser base is ready. Pour the mixture through a mesh strainer into a bowl or another jar. Discard the peels
- 6) The base can be stored in a tightly sealed jar or airtight container until ready to use. When you are ready to make the cleanser, combine it with distilled water in a 1:1 ratio and, using a funnel, pour into a spray bottle.

Reference: <https://toriavey.com/home-garden/natural-all-purpose-homemade-citrus-cleanser/>

All Purpose Cleaner Video

https://www.youtube.com/watch?v=Tf7_zT_hI-s&ab_channel=BlueOllis

Household Air Filters

https://www.youtube.com/watch?v=YnIvLBe6xUE&ab_channel=Wirecutter

Unpaper Towel

Supplies:

- 2 yards of cotton terrycloth fabric
- 2 yards of cotton flannel
- straight pins
- sewing machine or sewing needles
- plastic mesh canvas sheet
- snaps and snap setter
- rotary cutter (or scissors), cutting mat (optional if using scissors), and ruler

Steps:

1. Wash your fabric pieces in hot water so that any shrinking will occur before you sew and dry them
2. Place your two fabrics on top of each other on top of your cutting mat and smooth out both layers so there are no wrinkles.
3. You are going to cut 12" x 12" squares and it's really helpful if you have a template that you can use to cut each one so you don't have to measure out each square every time (like a cardboard template or other stiff material).

4. Use your template and ruler to cut through both layers of fabric with your rotary cutter. If you are using scissors, lay the pieces of fabric flat and pin them so when you cut, they stay in place.
5. Repeat until you have 12 squares of two-layered fabric.
6. Use your straight pins to pin each set of squares together if you haven't done so already.
7. Sew around your squares with a 1/2" seam allowance (or edge), leaving a 3" opening so you can turn your fabric inside out through the hole when you are done. Clip the corners of your square with scissors and then turn your fabric through the hole. You can press your seams flat by ironing each square if you like
8. Once they are all turned right sides out, make sure your 3" openings are folded in and even with the rest of the towel edge and sew all the way around each square again with a 1/4" seam allowance this time. (This will close your opening for you and help keep the towels lying flat.)
9. Get out your snaps and snap setter. Snaps have a stud side and a socket side (the stud part sticks out and the socket part goes in), so you'll want to arrange all your towels with the flannel side up and set two socket side snaps facing downwards on the right side of the square and two stud snaps facing up on the left side of the square (Maybe practice on a piece of scrap fabric to ensure you know how the snap setter functions). I cut a piece of mesh canvas the height of my towel and marked two squares (the same height and depth from the edge) with a marker so I could just line that up with the edges and mark where to place the two snaps so I didn't have to measure every time. Repeat by setting four snaps in this same manner on each towel.
10. Cut a piece of canvas 6 1/2" wide and as tall as your towels (should be about 11" tall). Attach stud and socket snaps (three on each side) with one set facing down and the others facing up so that your grid will overlap about 3/4" on each end when you snap it into a roll. It can be helpful to use clips of some sort to help keep your roll rolled up while you are marking the spots for your snap locations. Once your end snaps are attached, you'll want to attach two stud snaps that face outward when the roll is snapped together in the middle of your canvas the same distance apart as the snaps on your towels.
11. Once your snaps are all set, you can snap your roll together and start assembling your unpaper towel roll until all your towels are added!

Reference: <https://abeautifulmess.com/unpaper-towel-diy-they-are-reuseable/>

New Sew Un-Paper Towel Video

https://www.youtube.com/watch?v=PEfihWhmsUg&ab_channel=SushmaHagadur

Draft Snake (Window or Door)

Materials

- Medium-weight fabric (how many yards you'll need depends on how big your windows and doors are) (If you have an old pair of pants you no longer wish to wear, that should provide an adequate amount of fabric)
- Scissors
- Tape measure
- Sewing machine, threaded
- Straight pins
- Insulating material

Steps

1. Measure your window or door
2. Measuring the width of the window or door you are working with will ensure your DIY project actually works and keep you from wasting supplies.
3. Cut your fabric
4. To know how wide to cut, add four inches to the width of your window or door. No matter how wide the item is, cut the fabric 8 inches tall (this will help make sure your heater can run efficiently by blocking out cold air). Now you have a long rectangle of fabric.
5. Fold your fabric in half
6. Fold your piece of fabric in half lengthwise so that the long edges are touching each other. Then, pin these edges together using a few straight pins.
7. Sew seams
8. Using your sewing machine, sew the long edge where the pins are as well as one of the short ends. Sew several backward stitches so the ends are firmly sewn shut. You could also handle the sewing by hand. Leave a 2-3 inch gap in the seam so you can turn the fabric inside out.
9. Turn the fabric tube inside out
10. This will help to hide the stitching and create a seamless look.
11. Next, you'll want to fill your fabric tube with insulating materials. You do want it to be dense and have some weight to it, so using many materials to provide weight and fluff would be good.
 - a. There are several things you could use here, such as beans, sand, rice, old fabric scrap, plarn, etc.

Reference: <https://www.apartmentguide.com/blog/make-draft-stoppers/>

Food and Gardening Centered DIY Projects

Buying Food in Bulk

Tips for Buying in Bulk

https://www.youtube.com/watch?v=-oLJyZA73kI&ab_channel=minimalistcali

Where to Buy in Bulk in California

<https://www.litterless.com/bulk-food-guide/california>

Growing Herbs Indoors

Article:

<https://www.gardeners.com/how-to/herbs-indoors/8920.html>

Video

https://www.youtube.com/watch?v=5mWH5ajGJF4&ab_channel=LittleHouseOnTheMountain

https://www.youtube.com/watch?v=PEfihWhmsUg&ab_channel=SushmaHagadur

Growing Herbs and Food Outdoors

Gardening

https://www.youtube.com/watch?v=1X6KvqPjk6I&ab_channel=CarrieRad

Vertical Gardening

https://www.youtube.com/watch?v=TdI2YrNif5g&ab_channel=RootsandRefugeFarm

Composting and Vermiculture

Apartment/Indoor Composting

https://www.youtube.com/watch?v=LPsXy9gO40Y&ab_channel=Pildora

Apartment Vermiculture

https://www.youtube.com/watch?v=JH8QiSdBHR4&ab_channel=simplybychristine

Outdoor Vermiculture

https://www.youtube.com/watch?v=O_Fs6LcL-VI&ab_channel=TheEcoSwap

Beekeeping

https://www.youtube.com/watch?v=h_2GMBYKxNQ&ab_channel=NationalGeographic

Master Gardener Certification Programs

How to:

<https://www.mercurynews.com/2013/05/22/want-to-be-a-master-gardener-heres-how/>

UC Master Gardener Youtube Channel:

https://www.youtube.com/channel/UC_uTOm8KEE1qC57HbEJTPKw

Beauty, Hair, Cosmetics, and Hygiene DIY Projects

Cosmetics

Videos with Various Makeup Products

https://www.youtube.com/watch?v=ZAzMs7TtXjQ&ab_channel=RoseDust

- This video contains recipes for: brow pomade, powdered blush, eyeliner/mascara, lip tint/cream blush, and setting spray

Foundation

https://www.youtube.com/watch?v=FNBP6o8v7bo&ab_channel=TheKindJourney

Skin Care

This video contains recipes for: lip scrub, toothpaste, dry shampoo, face toner, and makeup remover

https://www.youtube.com/watch?v=cLejgvwAZpQ&ab_channel=JamieKateAdoc

https://www.youtube.com/watch?v=43IY_gPXGis&ab_channel=WholeElise

- This video contains a recipe for: face moisturizer and cream

https://www.youtube.com/watch?v=ESmunbBh2gg&ab_channel=iamvanessae

- This video contain recipes for: cleanser, toner, and moisturizer
-

Self-Care Products

https://www.youtube.com/watch?v=1QLkgxOhMSY&ab_channel=CraftingWitch

- This video contains recipes for: face mask/scrub, facial serum, green tea rose toner, coffee scrub, vanilla cinnamon lip scrub, rose and lavender bath salts
-

Hair

For Black or textured hair:

https://www.youtube.com/watch?v=jEpyPoOpVnA&ab_channel=UnivHairSoleil

https://www.youtube.com/watch?v=oYh7eucIRCE&ab_channel=CurlMix

https://www.youtube.com/watch?v=zr9D0LNVZwc&ab_channel=Naptural85

General hair DIYs

https://www.youtube.com/watch?v=EuICUqndscY&ab_channel=Goodful

Hygiene

https://www.youtube.com/watch?v=E265iTEOa_4&ab_channel=RachelTalbott

- This video contains recipes for: deodorant, shampoo, and shave cream

https://www.youtube.com/watch?v=L2PMiaHqEQc&ab_channel=EcoGoddess

- Toothpaste and Mouthwash

Craft-based DIY Centered Projects

Plarn and Plarn Projects

Plarn is Yarn made from upcycling plastic bags.

Pro-Tip! Plarn can be used for more than just weaving or crochet! Use it for packing material, insulation material, crafting material, and much more!

Video:

https://www.youtube.com/watch?v=gQwTcizA7Oo&ab_channel=Needlepointers

Plarn Bags (If you don't know how to crochet, go to Crafts section)

- 30 – 40 plastic grocery bags (preferably bags you already have or naturally accumulate)
- Scissors
- Crochet Hook – size J to N – the bigger the hook the looser the weave
- Safety Pins to use as markers
- Optional – ruler and pen if you want to pen if you want the plarn strips the same width

Instructions

1. Make your plarn and roll into a ball.
2. Make the bottom rectangle. Decide on the size you want (Example – 10 inches x 4 inches) and chain about 20 stitches. Remember to keep the loops loose.
3. To make the “body” of the bag, single crochet all around the rectangle and continue in the round until you reach the desired height. The pictured bag is about ten inches.
4. To make the handle, start by placing four safety pins to mark where the handle will go.
5. Single crochet up to the first pin, crochet 20 and join the row with the single crochet at the fourth pin. Continue to single crochet around the top edge increasing the width of the handles until they are about 1 – 1 ½ inches wide.
6. Finish

Video Playlist of Plarn Projects:

https://www.youtube.com/playlist?list=PLAqhuhVuo9arP4z7Bw-9nZdn9ZC8It-h_

Beeswax Wraps

What You'll Need

- Cosmetic-grade beeswax pellets
- 100% cotton fabric

- Scissors or pinking shears
- Brush
- Parchment paper
- Baking sheet
- Hanger (optional)
- Binder clips or clothespins (optional)
- Ruler (optional)

LAB TIP: Some tutorials call for jojoba oil or powdered pine resin, but we found that these more expensive ingredients didn't add any major benefits in our tests.

1. Cut the fabric.

Preheat the oven to 200°F or the lowest setting. Cut the fabric into sizes that will fit on your baking sheet. For a snack bag, use a 7" by 14" piece of fabric. A 14" by 14" square will cover most sandwiches. Pinking shears will help prevent your swatches from fraying, but scissors will also get the job done.

2. Place on a baking tray.

Line a baking sheet with parchment paper and place the fabric on top. If your fabric is one-sided, place the patterned side facedown. Use a fresh piece of parchment paper each time you make another wrap.

3. Sprinkle the pellets.

Evenly distribute a liberal amount of beeswax pellets all over the fabric. Make sure you get pellets near the edges too.

4. Melt and spread the beeswax.

Place the sheet in the oven for about 4-8 minutes. When the pellets melt completely, take the tray out and use a paintbrush to spread the wax evenly over the entire fabric.

NOTE: The beeswax will stick to the brush, so use one you're okay discarding or saving to make future beeswax wraps.

5. Let dry.

Using tongs, remove the fabric from the baking sheet. It should feel cool to the touch after waving it for a few seconds in the air. Hang the fabric up to dry or set it on the back of a chair with the beeswax side facing up.

6. Customize your wraps.

Once the beeswax has set and is not very tacky, you can add buttons or hand-sew them into small pouches.

Snack Bags: Use a 7" x 14" piece of fabric. Once dry, fold the fabric in half with the non-treated sides facing inward. Hand sew the two sides together, leaving the top open. Turn the bag inside out, and add a button as a closure or stitch Velcro to both sides.

Sandwich Wraps: Use a 14" x 14" piece of fabric. On the patterned side, sew a button in two adjacent corners. To close, put the side with the buttons face down. Fold the fabric into thirds around the sandwich. Flip and fold the ends of the fabric up so the buttons are on top. Wrap twine around them in a figure-eight pattern for a secure closure.

How to Care for Your Beeswax Wraps

Wash your wraps by hand in cool water with a mild dish soap. Place them on a drying rack or clothesline to dry. Avoid any heat such as hot water, microwaves, or ovens that will cause the beeswax can melt, ruining your wraps.

Reference:

<https://www.goodhousekeeping.com/home/craft-ideas/g25642328/diy-beeswax-reusable-wraps/>

Videos:

https://www.youtube.com/watch?v=FhFwNkXE8&ab_channel=SimplyKlaire

https://www.youtube.com/watch?v=6_bsxrqAF-s&ab_channel=CraftyPatti

Beeswax Candles

Video:

https://www.youtube.com/watch?v=FL0CEqdg9PA&ab_channel=BrambleBerry

Homemade Paper

https://www.youtube.com/watch?v=RR_218EtLJU

Produce and Grocery Bag

<https://www.youtube.com/watch?v=v-3XhDfTMig>

Tips:

Use fabric scraps from old clothes you'd like to repurpose!

This can be hand sewn, does not necessarily have to be machine sewn.

Upcycled Sewing and Weaving Projects

Hand Sewing Video:

https://www.youtube.com/watch?v=xvxqtc8thRg&ab_channel=Homedit

Machine Sewing Video:

https://www.youtube.com/watch?v=rnTwT-ifLkU&ab_channel=GoodHousekeeping

Upcycling Clothes:

https://www.youtube.com/watch?v=lw__A_wdH9I&ab_channel=rachspeed

Mending Clothes:

https://www.youtube.com/watch?v=SrV2gpeOI7o&ab_channel=EvelynWood

https://www.youtube.com/watch?v=CFhsftQzugo&ab_channel=BetterHomesandGardens

Basic Crochet: (This is great for plarn projects!)

https://www.youtube.com/watch?v=aAxGTnVNJiE&ab_channel=simplydaisy

DIY Fabric Reusable Menstrual Pad

https://www.youtube.com/watch?v=6g9fQ-BvaqY&ab_channel=Angie

Disaster Preparation and Survival DIY Centered Projects

To-go Bag Kit

Suggested Items:

To assemble your kit store items in airtight plastic bags and put your entire disaster supplies kit in one or two easy-to-carry containers such as plastic bins or a duffel bag.

A basic emergency supply kit could include the following recommended items:

- [Water](#) (one gallon per person per day for at least three days, for drinking and sanitation)
- [Food](#) (at least a three-day supply of non-perishable food)
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert
- Flashlight
- First aid kit
- Extra batteries
- Whistle (to signal for help)
- Dust mask (to help filter contaminated air)
- Plastic sheeting and duct tape (to [shelter in place](#))
- Moist towelettes, garbage bags and plastic ties (for personal sanitation)
- Wrench or pliers (to [turn off utilities](#))
- Manual can opener (for food)
- Local maps
- Cell phone with chargers and a backup battery
- Download the [Recommended Supplies List](#) (PDF)

Emergency Supplies

- [Masks](#) (for everyone ages 2 and above), soap, hand sanitizer, disinfecting wipes to disinfect surfaces
- [Prescription medications](#)
- Non-prescription medications such as pain relievers, anti-diarrhea medication, antacids or laxatives
- Prescription eyeglasses and contact lens solution
- Infant formula, bottles, diapers, wipes and diaper rash cream
- Pet food and extra water for your pet
- Cash or traveler's checks
- Important family documents such as copies of insurance policies, identification and bank account records saved electronically or in a waterproof, portable container

- Sleeping bag or warm blanket for each person
- Complete change of clothing appropriate for your climate and sturdy shoes
- Fire extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates, paper towels and plastic utensils
- Paper and pencil
- Books, games, puzzles or other activities for children

Maintaining Your Kit

After assembling your kit remember to maintain it so it's ready when needed:

- Keep canned [food](#) in a cool, dry place.
- Store boxed food in tightly closed plastic or metal containers.
- Replace expired items as needed.
- Re-think your needs every year and update your kit as your family's needs change.

Kit Storage Locations

Since you do not know where you will be when an emergency occurs, prepare supplies for home, work and cars.

- **Home:** Keep this kit in a designated place and have it ready in case you have to leave your home quickly. Make sure all family members know where the kit is kept.
- **Work:** Be prepared to shelter at work for at least 24 hours. Your work kit should include food, water and other necessities like medicines, as well as comfortable walking shoes, stored in a "grab and go" case.
- **Car:** In case you are stranded, keep a kit of emergency supplies [in your car](#).

Reference: <https://www.ready.gov/kit>

Videos

https://www.youtube.com/watch?v=XVFACzf9xEs&ab_channel=StephanieVilla

<https://www.youtube.com/watch?v=SdOmKzNcViQ&t=837s>

Household Earthquake Prep

Preparation

- Practice **Drop, Cover, and Hold On** with family and coworkers.

- Have hard soled shoes by your bed at all times in order to deal with broken glass.
- **Make an Emergency Plan:** Create a [family emergency communications plan](#) that has an out-of-state contact. Plan where to meet if you get separated. [Make a supply kit](#) that includes enough food and water for several days, a flashlight, a fire extinguisher and a whistle.
 - Include non-perishable foods, cleaning supplies, and water for several days, in case services are cut off in your area. If you are able to, set aside items like soap, [hand sanitizer](#) that contains at least 60 percent alcohol, disinfecting wipes, and [general household cleaning supplies](#) that you can use to disinfect surfaces you touch regularly. After an earthquake, you may not have access to these supplies for days or even weeks.
 - Being prepared allows you to avoid unnecessary excursions and to address minor medical issues at home, alleviating the burden on urgent care centers and hospitals.
 - Remember that not everyone can afford to respond by stocking up on necessities. For those who can afford it, making essential purchases and slowly building up supplies in advance will allow for longer time periods between shopping trips. This helps to protect those who are unable to procure essentials in advance of the pandemic and must shop more frequently. In addition, consider avoiding WIC-labeled products so that those who rely on these products can access them.
- **Protect Your Home:** Secure heavy items in your home like bookcases, refrigerators, televisions and objects that hang on walls. Store heavy and breakable objects on low shelves. Consider making improvements to your building to fix structural issues that could cause your building to collapse during an earthquake. Consider obtaining an [earthquake insurance policy](#). A standard homeowner's insurance policy does not cover earthquake damage.
- Wear a mask when in public to slow the spread of COVID-19. You may not have time to put on a mask in the event of an earthquake. Wearing one regularly will allow you to be prepared to drop, cover, and hold on safely with those who are not a part of your household. Masks should not be worn by children under two, those who have trouble breathing, and those who are unable to remove them on their own.

Reference:

<https://www.ready.gov/earthquakes#:~:text=Prepare%20Before%20an%20Earthquake&text=Plan%20where%20to%20meet%20if,cut%20off%20in%20your%20area.>

Car Kit Video

https://www.youtube.com/watch?v=Ot8_iiIWDmI&ab_channel=SpencerKrull

Preparing Your Home Video

https://www.youtube.com/watch?v=FDt_qCULe4c&ab_channel=CityPrepping

Fire Starter

DIY Fire Starter

https://www.youtube.com/watch?v=uCni8yLXR3w&ab_channel=GMCCrafts

DIY Rocket Stoves

https://www.youtube.com/watch?v=FMhUFthG4bU&ab_channel=OutdoorBoys

13 Ways to Start a Fire

https://www.youtube.com/watch?v=X3-Tpf1KPSs&ab_channel=OutdoorBoys

Water Filter

DIY Water Filter

https://www.youtube.com/watch?v=0DlnAq5UAqY&ab_channel=SurvivalontheSKinney

*Side Note:

Filtering water does not purify it. You must boil water after the filtration process in order to kill any pathogens, bacteria, or other microorganisms. Do not boil water in order to remove nitrate, lead or some other substances. Boiling water will actually increase the concentrations of these substances, not remove them.

What are pathogens and which pathogens should we be concerned about in our water? Pathogens are disease-causing organisms which may include types of bacteria, viruses, protozoan parasites, and other organisms. United State Environmental Protection Agency (USEPA) regulates the following pathogens in drinking water:

- Cryptosporidium: This is a single-celled protozoa parasite found in lakes and rivers, especially in waters with sewage or animal waste pollution. This protozoan parasite can cause gastrointestinal illness like diarrhea, vomiting and stomach cramps.
- Giardia lamblia: This is a single-celled protozoan parasite that can be found in the intestines of infected humans and animals, in soil, food, or water contaminated by feces from infected humans and animals. This pathogen can cause nausea, stomach cramps, diarrhea, and associated headaches.

· **Legionella:** This is a type of bacteria that is naturally found in the environment, usually in water. It grows best in warm water (hot tubs, cooling towers, hot water tanks, large plumbing systems or air-conditioning systems of large buildings are ideal places for this bacteria). Legionella bacteria in water can become a health risk if the bacteria are aerosolized (e.g., in an air conditioning system or a shower) and then breathed in. Inhaling Legionella bacteria can cause a type of pneumonia known as Legionnaires disease.

Reference:

<https://extension.usu.edu/waterquality/files-ou/Lesson-Plans/Homemade-water-purifier.pdf>

Neighborhood Phone Tree

How to Build a Phone Tree

A phone tree is a prearranged, pyramid-shaped system for activating a group of people by telephone. Using the phone tree system can spread a brief message quickly and efficiently to a large number of people.

USES

Quickly notify members and/or supporters about fruit deliveries. Spreads the work load out between members. Save printing and postage costs involved with communicating brief notices by mail.

RESOURCES NEEDED

People- A coordinator and a network of reliable people form the skeleton of the phone tree. See enclosure titled, "Example Phone Tree Layout"

Time- The coordinator will spend time organizing the tree. (This process should be done prior to serious activation of the tree.) Once it's set up, the tree can do dozens or even hundreds of hours of work with only five to 50 minutes of involvement by each member, depending on the frequency and number of calls each member is assigned.

Money- No money is needed aside from long-distance charges, where applicable. Use home telephones and cell phones at no additional cost.

ACTION CHECKLIST

1. Make a list with current phone numbers of all the persons you want the tree to reach.
2. From that list, recruit a smaller group of people who will be responsible for calling and activating other members. This small group is referred to as the Key Group .

- a. Keep the Key Group as small as possible, since each group may be responsible for reaching people who in turn are responsible for reaching out, and so on. It is critically important that the members of the Key Group are reliable!
 - b. Impress upon ALL participants the importance of completing all their assigned calls.
3. Divide the people on your list among the members of the Key Group.
 - a. Consider assigning responsibilities geographically to reduce any phone charges.
 - b. Try to limit calls to three to eight per participant so the phone tree won't become too burdensome.
4. Make a chart of Key Group members and their assignments and distribute it to the Key Group. Be sure to include work, cell, office, and other numbers to locate members.
5. Ask key people to notify you when they are going out of town or will otherwise be unavailable. Have alternate Key Group folks that can fill in if someone is unavailable.
6. Hold message drills occasionally to test your phone tree for effectiveness and identify areas for improvement.

OPERATING THE TREE

1. As coordinator, you will start the tree. Write out a brief script complete with the specific details of fruit and delivery.
2. Call the members of the Key Group using the script. Make sure that Key Group members understand what they need to do and the time frame in which they should do it.
3. Spot-check the tree's effectiveness by calling a few people down on the list to be sure they have received an accurate and complete message. Also, you can prearrange with folks down the list to contact you once they have received the message.
4. Train the folks in your phone tree to keep trying each person on their list until they make contact. If a member of the phone tree cannot be reached, have the caller notify you as the coordinator so you can fill in or delegate the responsibility to another member.

KEY POINTS Have an organization chart for your phone tree. Be sure that your Key Group members are reliable. Have multiple ways of reaching members (home, work, and cell numbers are key).

Reference: <http://www.intermountainpro.com/wp-content/uploads/2011/01/Phonetree-IP.pdf>

Basic First Aid and CPR

Basic First Aid

https://www.youtube.com/watch?v=ErxKDbH-iiI&ab_channel=GetLicensed

First Aid Kit Contents

To be prepared for emergencies:

- Keep a first aid kit in your home and in your car.
- Carry a first aid kit with you or know where you can find one.
- Find out the location of first aid kits where you work.

First aid kits come in many shapes and sizes. Your local drug store may sell them. You can also make your own. Some kits are designed for specific activities, such as hiking, camping or boating.

Whether you buy a first aid kit or put one together, make sure it has all the items you may need:

- Include any personal items such as medications and emergency phone numbers or other items your health-care provider may suggest.
- Check the kit regularly.
- Check expiration dates and replace any used or out-of-date contents.

The Red Cross recommends that all first aid kits for a family of four include the following:

- N95 and cloth masks
- 2 absorbent compress dressings (5 x 9 inches)
- 25 adhesive bandages (assorted sizes)
- 1 adhesive cloth tape (10 yards x 1 inch)
- 5 antibiotic ointment packets (approximately 1 gram)
- 5 antiseptic wipe packets
- 2 packets of aspirin (81 mg each)
- 1 emergency blanket
- 1 breathing barrier (with one-way valve)
- 1 instant cold compress
- 2 pair of nonlatex gloves (size: large)
- 2 hydrocortisone ointment packets (approximately 1 gram each)
- 1 3 in. gauze roll (roller) bandage
- 1 roller bandage (4 inches wide)
- 5 3 in. x 3 in. sterile gauze pads
- 5 sterile gauze pads (4 x 4 inches)
- Oral thermometer (non-mercury/nonglass)
- 2 triangular bandages
- Tweezers
- Emergency First Aid guide

Reference:

<https://www.redcross.org/get-help/how-to-prepare-for-emergencies/anatomy-of-a-first-aid-kit.html>

Basic First Aid Video

https://www.youtube.com/watch?v=ErxKDbH-iiI&ab_channel=GetLicensed

Contributors

Nobantu Akili
Ann Chen
Majeid Crawford
Bryan Dador
Austin Davis
Stevie Gaynor

Thomas Geisler
Hyon Lee
Taylor Love
Lamberto Melchor
Sobe Melton
Maria Meyer

Maria Meyer
Mariegail Mijares
Gordy Nipper
Malik Orr
Bayilani Ramirez Vidal