A School Focused Work Book to Build a Micro-Farm

everDale

By Karen Campbell

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GREEN BELT

Possibility grows here.

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ecosource

Growing a Green Community

The purpose of this workbook is to act as a practical guide and to help facilitate discussion between parents, community members, school faculty and administration. The intention is to help your team think through different choices, help define project goals, identify phases for your project, and to help plan your Micro-Farm. Happy Growing!

GUIDE CONTENTS

WHAT IS A MICRO-FARM?

A Micro-Farm is a food grown in a non- traditional food growing space. They are dedicated tracts of land where growing food is the primary goal and are often in urban areas. The farm may have other educational features in the space, but the layout, design and planning is all considered with food production as the main focus.

Micro-Farms can be incredible productive spaces that highlight the pleasure and successes of food growing for a wide audience. They also serve as an example that food grown in ways that heal the earth, rather than deplete the earth, are excellent choices that can make a difference towards a healthier planet. This manual focuses on schools.

If you are considering a Micro-Farm for your school, use these 4 principles to increase your project success.

1. Raised beds - These keep pathway weeds out of your garden, prevent soil compaction, provide a few years of weed free gardens, serve as a barrier to some pests like slugs and snails, can be moved in some instances and are easy to build.

2. Careful soil prep- Soil is key, utilize compost, deep digging methods and careful soil choices

3. Crop plan – It is not a home garden, it needs to work for the school. Make a plan that that adapts to the capacity of the school and compliments the school year schedule.

4. Youth are leaders – Allow the young people on your team to participate in all of phases of the project, giving them valuable and a personal connection to our food system and issues of food justice.

WHY A MICRO-FARM

This is a list that our friends at The Food Project in Boston use, we think its bang on and use it all the time when working with youth, teachers and community.

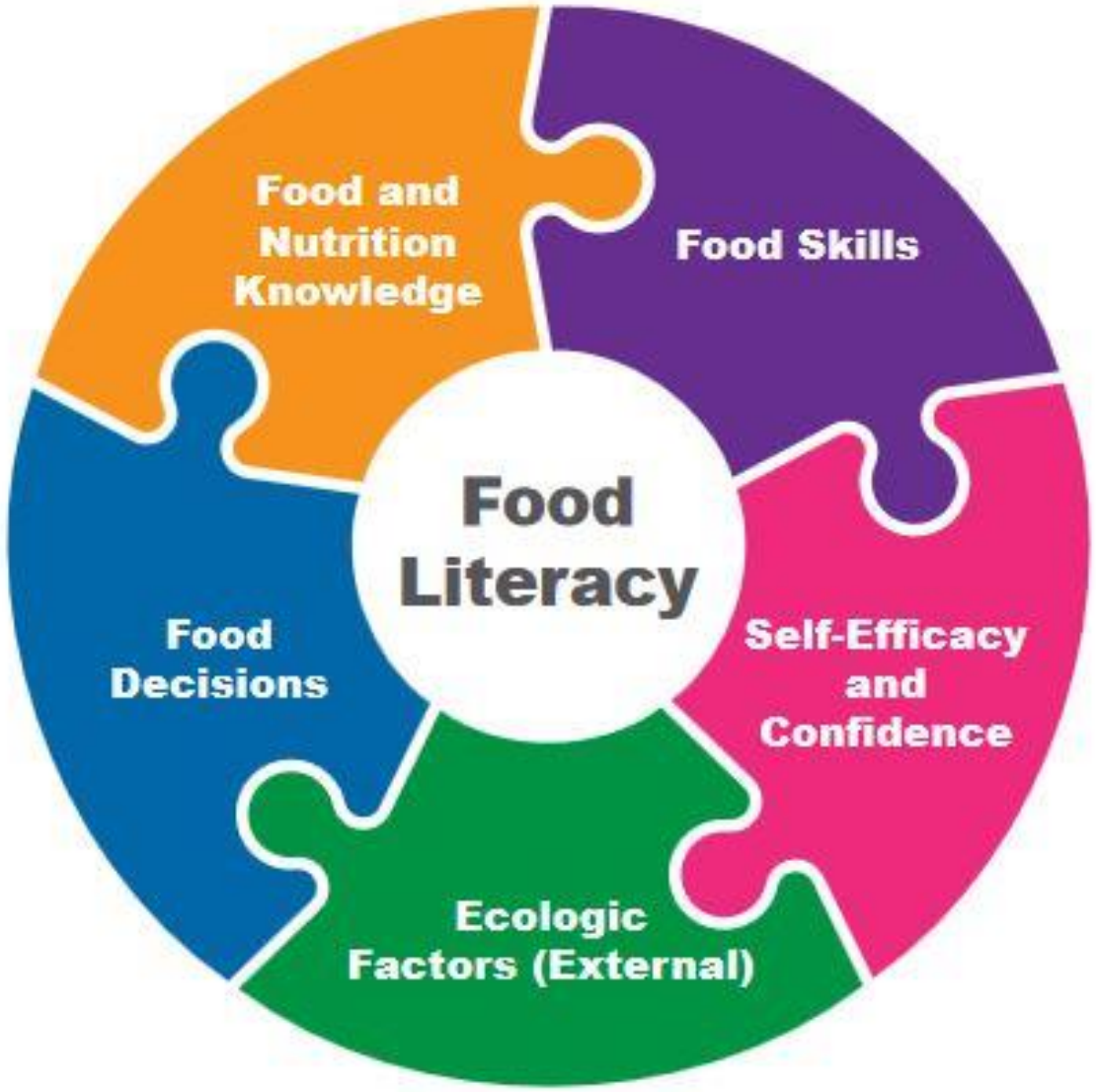
1. **It is new** – most youth have never planted a seed or grown food.
2. **It is physical** – real action that provides real results.
3. **It is needed** – this is real work. Agriculture allows us to understand that we can make contribute to our world in a healthy way.
4. **It can contribute** to the school community – through the cafeteria or hospitality program with food, or to any other curriculum -art, science, history, math, biology etc..
5. **It can provide metaphors** for our lives – agriculture can provide parallels and lessons for all of us i.e. the health of a garden is dependant on a diversity of crops, just like the health of any group is dependant on its differences.
6. **It teaches us** how to be healthier people- as we learn more, this experience will allow us to make more informed choices when shopping.
7. **It plants the seeds for social justice -** eating is a basic need and growing food is a basic skill. Agriculture offers young people the tools to participate in a changing world.

FOOD LITERACY AND YOUR MICRO-FARM

Food literacy is a set of skills and attributes that help people sustain the daily preparation of healthy, tasty affordable meals for themselves. Food literacy builds resilience, because it includes food skills (techniques, knowledge and planning ability), the confidence to improve and problem solve, and the ability to access and share information. Food literacy requires external support **with healthy food access** and living conditions, broad learning opportunities and positive socio – cultural environments. Food skills evolve over time.

Preferred way of learning defined

- Direct experiential learning
- School based opportunities
- Community cooking programs



Source: FOOD LITERACY FOR LIFE

GREENING PROJECT OR MICRO-FARM

It's important to distinguish weather your team is primarily interested in creating school ground greening or a food growing space. Both are amazing teaching tools with the ability to bring out the potential of enhancing outdoor learning for the school community, but do this through different means.

- Both promote and encourage outdoor learning through site transformation
- Both transform spaces into healthier sustainable environments
- Both enhance environmental function on school grounds
- Both consider natural spaces and outdoor learning as a tool for student engagement, mental health and student well being.

The difference is that a Micro-Farm is a space designed and dedicated to **grow food** and has a layout is conducive to a deeper level of emersion into agriculture.

Consult School Board regulations or greening plan for either project stream. You should be able to find info regarding healthy processes and suggestions on your boards website.

BUILDING A TEAM

Critical connections bring positive change. Weather you are nurturing your Micro-Farm idea or starting to put your project together - take stock of who is interested and where some collaborations still need to be made. The most successful projects have representation from Senior leadership (principal), teaching faculty, community members, students, parents and local businesses. Define roles for everyone on the team and see where the needs still remain, to build a strong project.

Some areas of expertise are: Gardening, grant writing, teaching, recruitment, design etc...

Participant	Organization	Role / Expertise	One time or on going?	Grant writing
Devon	EDHS- Student rep	Recruit students, youth led grants	On going	Yes
Mr. Galvin	EDHS – Principal	Final decisions, contact with board	On going	No
Alvis	Local gardening group	Initial design, has heavy equipment	Work Bees only	No
Jamal	Parent	Outreach & fundraising	On going	Yes
Mr. Wagson	EDHS- senior leader	Outreach to students & teachers	One time	Yes
Karen	Everdale	Planning, design, equipment, soil	On going	Yes
Ms. Spalling	EDHS- teacher	Science teacher, planning, seeding, work bees with students	On going	No

DECISION MAKING PROTOCOLS

Facilities &
School Board Contact

Principal &
Sr. Administration

Project Steering Committee

Should have representation from both BLUE & YELLOW groups. Has an appointed point person that facilitates the project, reports back on progress to keep all informed and moving forward.

- Students
- Teachers
- Parents
- Local Business
- Eco Schools rep
- Community members
- School Board Trustee

DREAM FARM EXERCISE

Time to dream about your project…. This exercise requires your imagination, trust, crayons, pens and lots of big paper. It can completed in a small setting or individually. When taking this up, it is up to you to ask folks to share their written work or verbally, based on their comfort level.

Question # 1

"Imagine it is a beautiful spring evening and you find yourself at the school for a stroll…. What do you see? Describe the space, draw the space ".

Question #2

" Imagine that you are 40 years older and you are looking back on your high school experience or your experience with this project. What would you tell someone about the project? What impact did it have on you? What are your fondest memories?"

Question #3

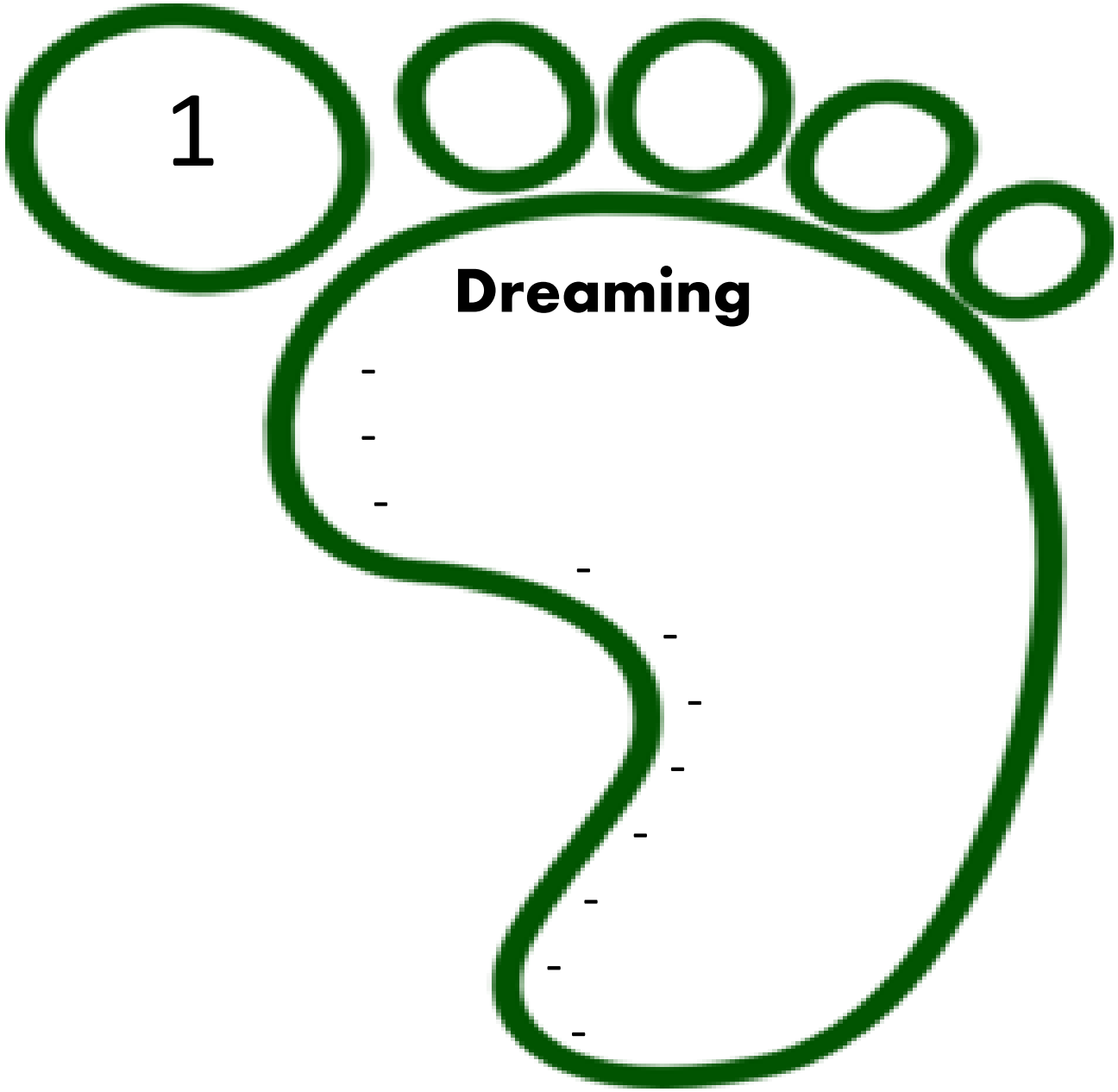
"Why you are involved in this project and what interests you?"

3. Dreaming & goal setting

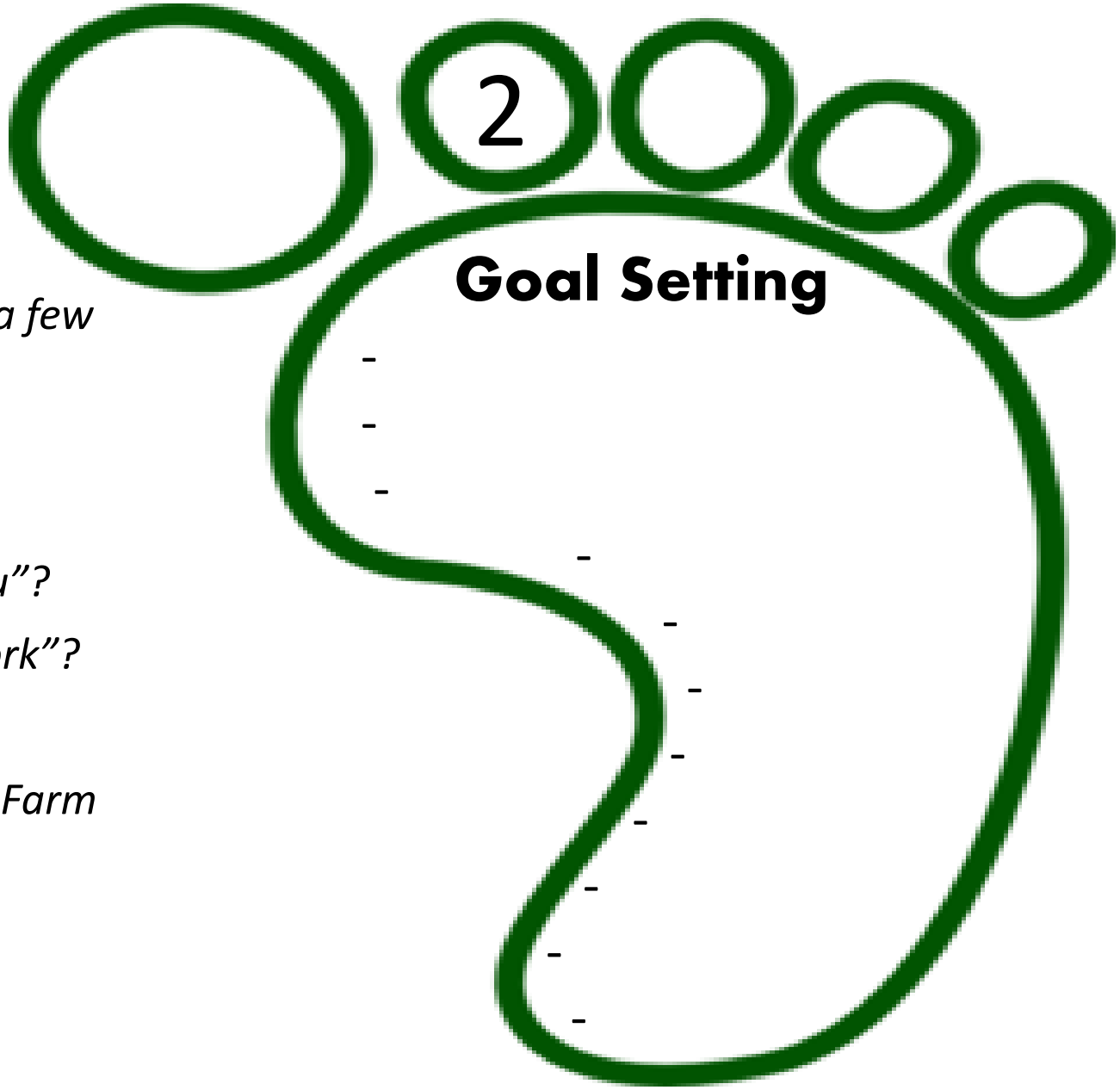
Dreaming

What were some of ideas and thoughts that surfaced in the Dream Farm exercise?

Remember the key to dreaming is to dream BIG, but to also dream Small.



3. Dreaming & goal setting



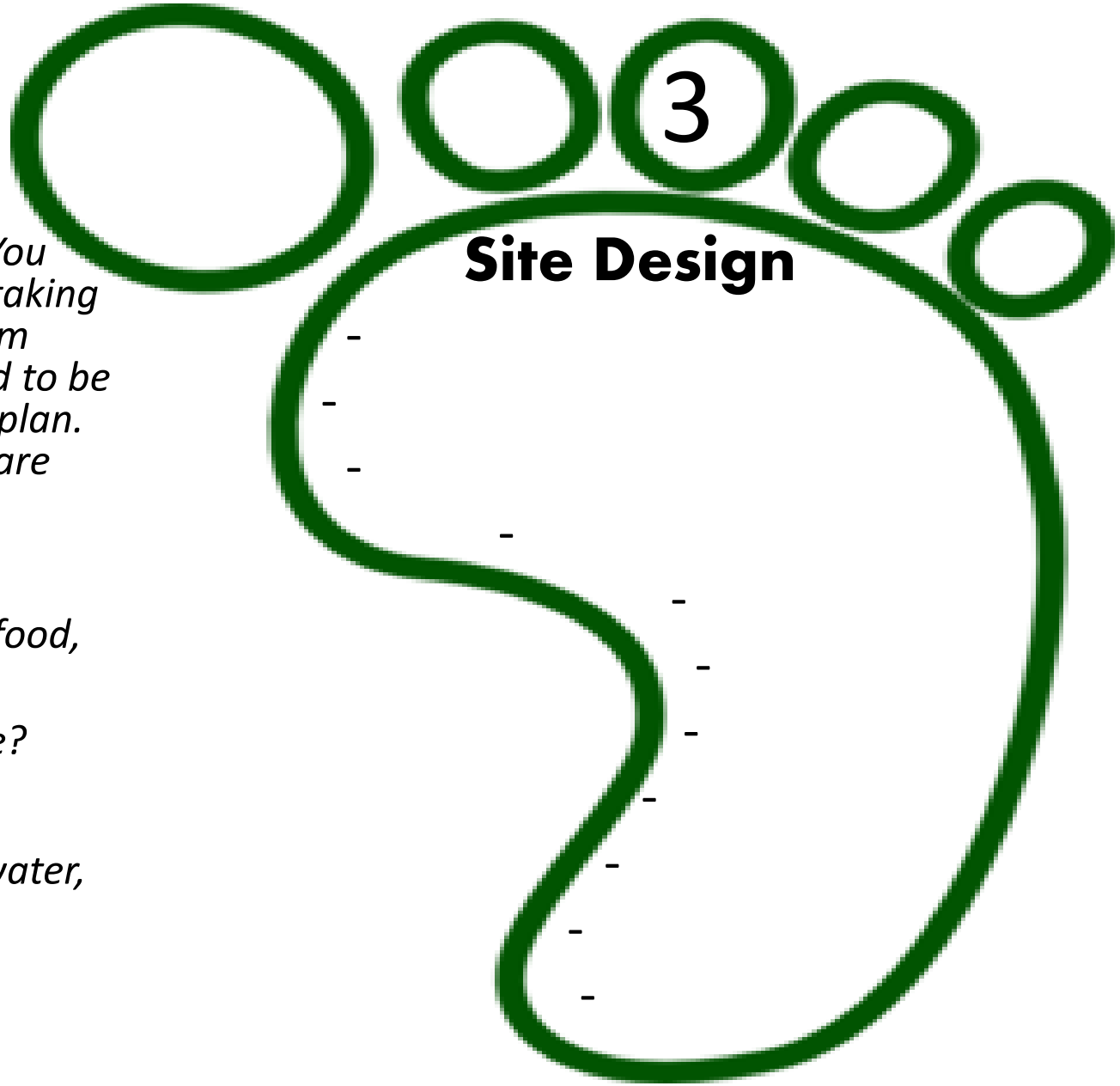
Goal Setting

Stay high level for this exercise and determine a few tangible goals for your project.

Answer the following

- *"What does a successful project mean to you"?*
- *"Are your goals aligned and with your network"?*
- *"Our project will be successful if…"*
- *Develop a mission statement for your Micro-Farm*

3. Dreaming & goal setting



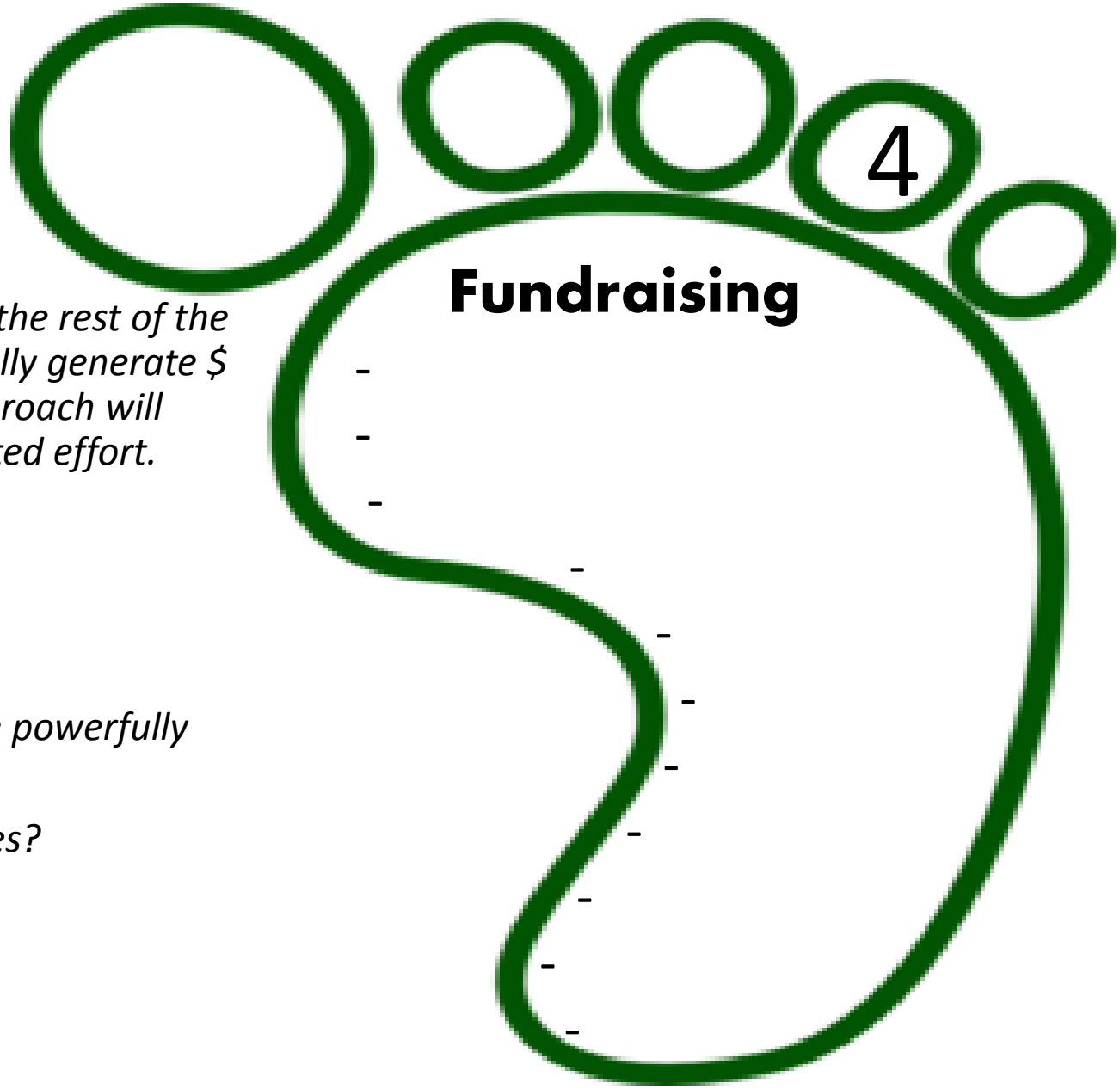
Site Design

Understanding how the school will use the Micro-Farm will go a long way towards ensuring its sustainability. You may be tempted to skip ahead to ground breaking, but taking time to connect around this idea is essential for long term success. Facilities will be a resource to you and will need to be consulted often, ask for access to the site maintenance plan. Remember you are altering school property which they are responsible for.

Answer the following

- *What are the critical connections for teachers? Local food, composting, water cycles etc…*
- *What can we do to design the space to encourage use?*
- *Are there local garden clubs we can connect with?*
- *Have facilities been contacted? Have the locates for water, electrical, sewage, plumbing, gas been done?*
- *Are there any nearby school gardens we can visit?*

3. Dreaming & goal setting



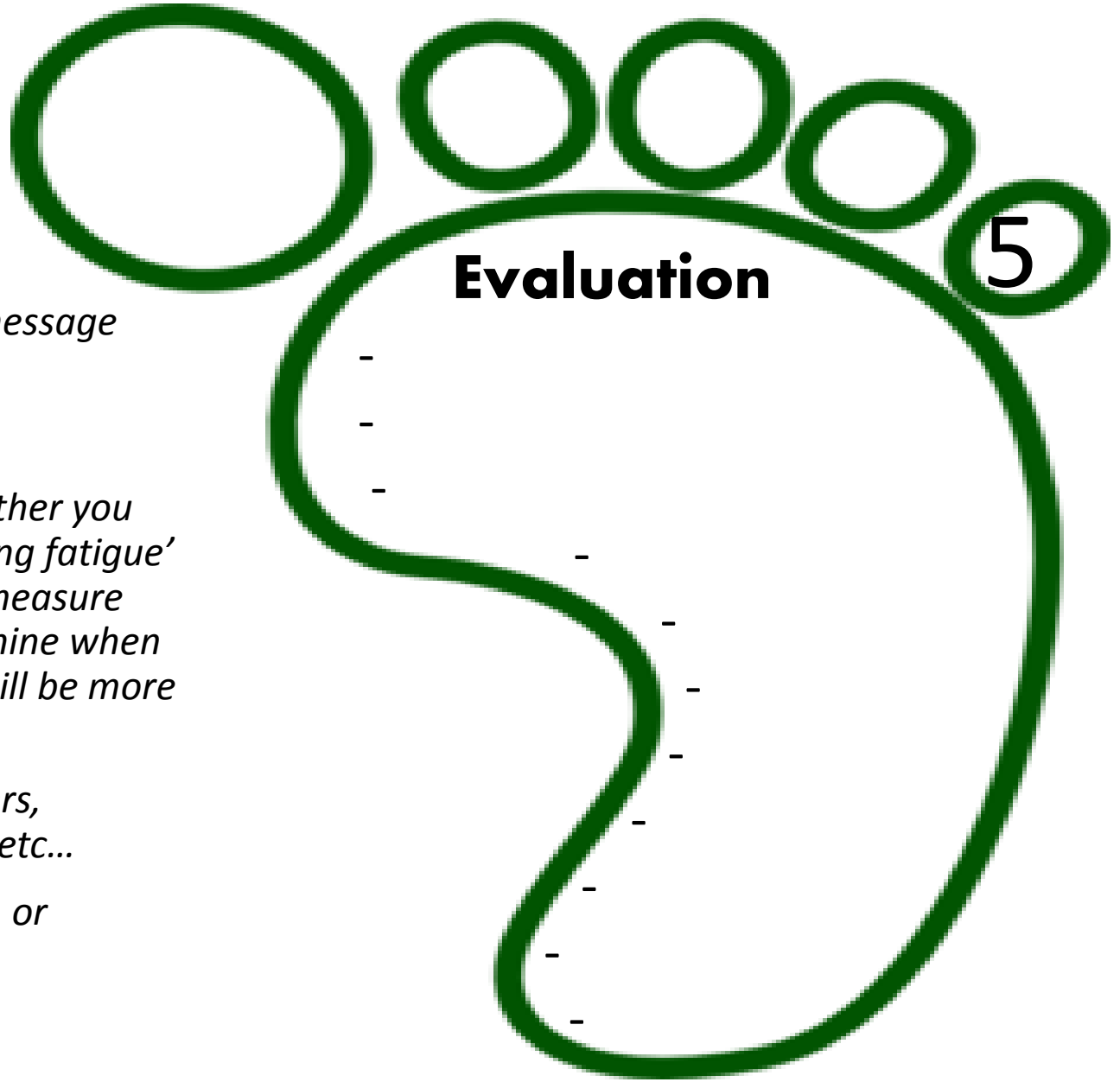
Fundraising

Now it is time to develop a pitch for your Micro-Farm to the rest of the school. This will help cultivate interest but also potentially generate $ for needed start up costs. Funds generated from this approach will show the community that the Micro-Farm is a co-ordinated effort.

Answer the following

- *Outline your plans and goals concisely.*
- *Outline specific site and project needs?*
- *Are there students on the team that can communicate powerfully about the Micro-Farm?*
- *Have you identified any grants or funding opportunities?*
- *What is your strategy to 'pitch' your idea?*

3. Dreaming & goal setting



Reflection & Evaluation

Spending time at the start of your project to think about what you wish to evaluate as a team, can build a stronger message /story and make it easier for your project apply for funding.

Answer the following

- *There are lots of indicators you can use to determine weather you are meeting your project goals, but to avoid 'record keeping fatigue' ask why you are measuring something i.e. if you wish to measure rainfall, is this to learn about the water cycle or to determine when to water… If its the latter, then using a moisture meter will be more effective and less timely.*
- *What do you wish to gather data on? Number of volunteers, quantity of food, # of students, of teaching time in space etc…*
- *Are their ways to include measurements of student health or nutrition into the evaluation process?*

SITE INVENTORY & MAPPING

It`s time to conduct a site inventory. Tour the potential site(s) for your Micro-Farm at different times of the school day to gain a better understanding of the space. The goal is to observe, map or record what you see – use this list to guide your plan.

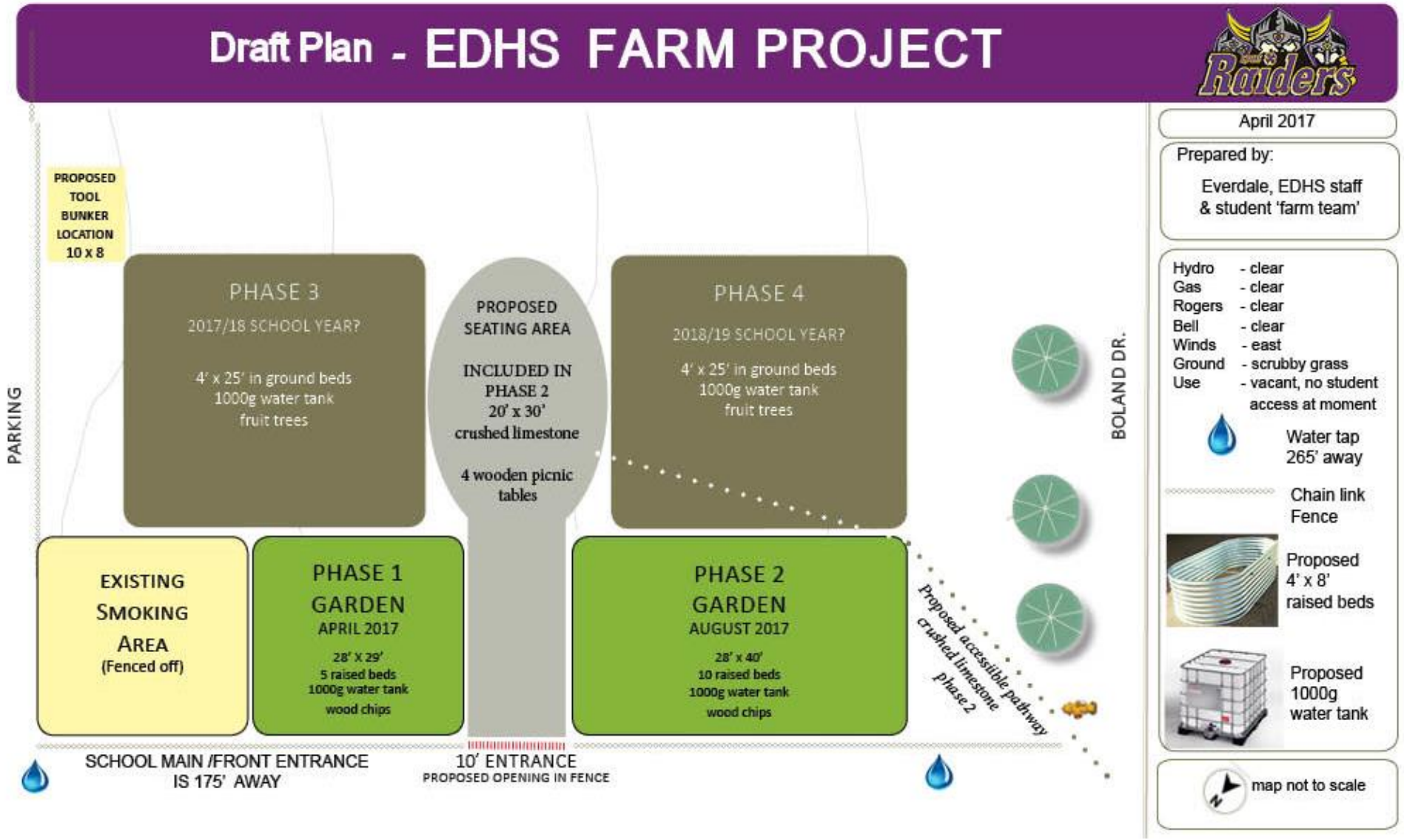
1. Ideal size with precise measurements
2. Have services been identified? Gas, sewage, electricity, fiber optics etc..
3. Are there micro-climates?
4. Are there heat pockets?
5. What are the shade patterns?
6. What is the topography?
7. Identify existing trees & shrubs
8. Where is the water source & distance
9. Are there existing structures?
10. Where is North?
11. What direction is the prevailing wind?
12. Is there vehicle access?
13. Is there any potential tool storage?
14. What is existing ground cover (asphalt, grass, wood chips etc…)
15. Are there good site lines?
16. Will there be space for mustering points?
17. Current site use at different times of day
18. Is space available for students at recess & break times?
19. Is the Micro-Farm part of a larger greening process at the school? If so, where are the mutually beneficial elements?

DESIGN CONCEPTS FOR YOUR PLAN

Important planning concepts:

- ❑ Keep site lines open
- ❑ Plan for 2 ways in and out to avoid dead zones
- ❑ Allow space for natural gathering and teaching
- ❑ Plan for durability – choose materials that are high quality and will last
- ❑ Plan for maintenance - choose layouts that are logical and simple
- ❑ Install your garden beds symmetrically and evenly to each other
- ❑ Symmetry is important - measure each end of your garden bed very carefully off a focal point i.e. school, fence etc.... to ensure they consistently line up with the space and each other.
- ❑ Measure carefully the height of your garden beds to make sure that their heights are relative to each other
- ❑ Ensure your walkways wide enough to contribute to accessibility (check guidelines and regulations)
- ❑ Number your beds sequentially
- ❑ Plan for expansion, don't plan yourself into a corner!

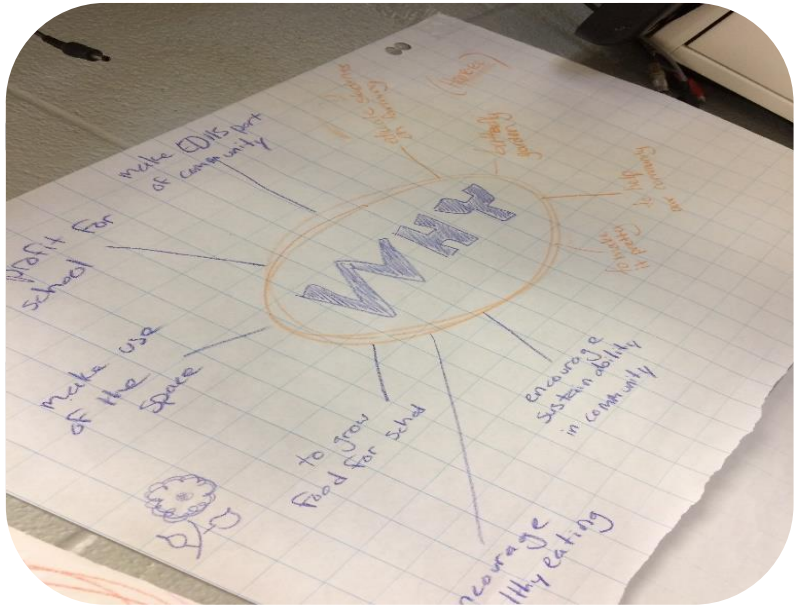
SAMPLE MAP OF FARM AT ERIN HIGH SCHOOL



Your plan doesn't have to be done by a professional - this simple plan for Erin District High School was made on a desktop computer. As long as it's legible and you can easily share the information, any format would work!

The EDHS team decided to include all the proposed phases to show long term commitment and our goals. It doesn't mean that we are 'stuck' with these elements, but demonstrates that we have considered how the phases interact with each other This map has been a key tool for evaluation, review and outreach.

THE IMPORTANCE OF STUDENT INVOLVEMENT



and the school
(4) This project is important to me because it is helping people to eat healthy and create a green space for our school (which we don't really have). For the community, it let's people get involved in something and students can get community hours

(4) We are helping out almost everybody with this farm as it is showing me how to be involved and stay commited to something. Our community could also use another beautiful garden infront of the school and the eaf also could use somemore healthy localy grown food.

4. It's important to me to show everyone what a grop of students can do. It is good to plant and grow food to give to people who don't have access at all times.

THE IMPORTANCE OF PICTURES

Insert the photo of Jordan taken for the country routes article. Need to photo shop both photos to make them lighter

USE THIS SPACE TO DREAM & MAP YOUR MICRO-FARM

INFRASTRUCTURE CHOICES

Infrastructure that we love to use and recommend

- ❑ Raised beds – made from durable material
- ❑ Seating – at EDHS we use picnic tables
- ❑ Shade – shade sail, gazebo etc..
- ❑ 1000g Water tank (if tap is hard to access)
- ❑ Tool storage – either in school or a small shed
- ❑ Educational signage
- ❑ A big chalkboard or teaching tools

When choosing any materials and your raised beds, consider this 'triangle of needs' concept to guide your decisions regarding material and design.

At Everdale we keep this idea in front of mind with all projects. If we are repairing an item or replacing something, it always brings insight and helps with planning. The basic premise is that careful choice is a key factor and try as you might… you can't have a repair or new build that is Good, Fast & Cheap...

EQUIPMENT FOR 20-30 STUDENTS

Basic Tool List

- ❑ Watering cans x 4 -6
- ❑ Measuring tapes x 8
- ❑ Wheelbarrow x 1
- ❑ Digging forks x 4
- ❑ Digging shovel x 6
- ❑ Hard rake x 2
- ❑ Fan rake x 2
- ❑ Hand pruners x 5
- ❑ Hand trowels x 10
- ❑ Scissors x 8
- ❑ Harvest knives x 5
- ❑ Class set of gloves
- ❑ Hoe x 1
- ❑ Buckets & harvest bins

Closed Tool box with hammer, multi screw driver, hand saw, sharp knife, sharpies, mixed screws and nails etc.... This is a good thing to have access to when working in the garden

Other Necessary Supplies

- ❑ Sharpies
- ❑ Plant tags
- ❑ Markers
- ❑ Glue
- ❑ Yarn, string to align plantings
- ❑ First aid kit
- ❑ Clipboards (class set)
- ❑ Paper
- ❑ Pens, pencils
- ❑ Moisture meter
- ❑ PH kit (to test soil)
- ❑ Scale – up to 5 lbs

Shop in second hand stores for tools in good shape & discount stores for plant tags, string clipboards etc.. asking for tool donations can be successful too!

Funny shed shopping moment with some youth

SELECTING GARDEN BED SYSTEMS

We recommend raised beds for your Micro-Farm. There are some challenges associated with raised beds, but we feel that the benefits far outweigh the challenges.

Benefits of Raised Beds

- ❑ Imported soil is weed free
- ❑ Eliminate need for soil testing (school soil is highly compacted and use often unknown)
- ❑ Allow for a flexible use of space
- ❑ Simplify training installation and maintenance
- ❑ Easy to cultivate and plant
- ❑ Future growth can be fundraised around bed purchase i.e. one 3 x 8 raised bed = $400
- ❑ Bed choice and bed sizes can be easily adapted for different budgets
- ❑ Generate excitement around the planning process
- ❑ Easy access for all ages
- ❑ No need for fencing
- ❑ Protection from pathway weeds and compaction
- ❑ Micro-Farm can built on paved surfaces and small spaces
- ❑ Drainage management can be easier (especially if raised beds have bottoms)
- ❑ Increased opportunity for team building and group work.

Challenges

- ❑ Cost of materials and soil
- ❑ Can be a challenge to move
- ❑ Can dry out quicker if not managed well

SELECTING GARDEN BED SYSTEMS

Galvanized Steel

Galvanized steel containers are Everdale's first choice. They are long lasting, weather resistant and do not leach contaminates into the soil. These planters are comparable on a cost per basis to wood, poly or HDPE, but it is the longevity and durability that make them a worthwhile investment. Galvanized steel containers can contribute a more industrial look to a space, but a major advantage is that they can be custom ordered for almost any length, width or height. We installed several of these for a seniors project that are 42" high, this allows the seniors to stand beside them, which was a priority for them. These planters are also very easy to assemble and several can be assembled in an afternoon with a group of keen students.

We have seen some projects paint these with murals and graffiti which can add to the artistic flair of your space, keep in mind that the paint will need to be touched up each year.

SELECTING GARDEN BED SYSTEMS

Poly Tubs

We love these poly tubs. The advantage to choosing this application is that they have bottoms (making moving them an option), there is no assembly and they are made from food grade plastic. Everdale has used poly tubs in large quantity for a project at Guelph Youth Farm (GYF) as soil history at the site was uncertain. Soil testing for contaminates can be done but is expensive, and it doesn't necessarily provide options for soil remediation. These poly tubs are referred to as stock tanks and are measured in volume - the ones pictured here are 75 gallon and were purchased these through our local feed store.

SELECTING GARDEN BED SYSTEMS

CEDAR

Cedar, while the most expensive wood option can be an excellent choice for your raised beds. Cedar is naturally rot resistant and has a pleasing look and aroma. There are several non-toxic wood preservatives available that can further extend the life of cedar and other wood, structures too. Over time Cedar will develop a silver patina a look enjoyed by many. Other lumber can be used but softwoods, like pine and fir, will decompose very quickly and require frequent replacement and increased maintenance.

Pressure treated wood is an affordable option, however, the toxic preservative can leach into soil over time, and thus be taken up by your vegetables. When time comes to replace cedar containers, the wood can be repurposed, and if it is disposed of properly, it will eventually decompose.

https://eartheasy.com/natural-cedar-raised-garden-beds/

SELECTING GARDEN BED SYSTEMS

HDPE Kits

Raised beds made from HDPE kits are long lasting (some are guaranteed for life) and durable. They resist cracking and chipping from impact and weather extremes of hot and cold. HDPE is a stable plastic, so will not leach contaminates into the soil and will not warp. We have found that raised beds made from these kits will require reinforcement over time as the plastic is simply not as strong or thick as wood. Like galvanized steel, HDPE raised bed kits are more expensive than wood, but given the durability of the product may be worth the investment. These beds come in standard sizes and we have not found a source to customize them.

SELECTING GARDEN BED SYSTEMS

Composite Wood

Wood/plastic composite timbers are light and can be an option instead of lumber. Some designs for this material make clever use of swiveled hinges to allow for easy reconfiguration without damaging the timbers. This method can accommodate expansion and also some interesting and non-standard shapes! The product is the least durable of the options presented here, and is easily scuffed or broken by hand tools. As composite boards are not as strong as the other options extra support and bracing will likely be required to prevent bowing of the sides.

http://french.huaxiajie.com/plastic-composite-wpc-decking-flooring

GROUND COVER OPTIONS

Ground Cover	Pros	Cons
Micro Clover	Nitrogen fixer & green manure Durable Inexpensive Self replacing Attractive, stays green Outgrows most weeds	Semi-regular trimming (growth tops out at 4”) Susceptible to drought and blight Flowers attract bees at foot level
Crushed Limestone	Low Maintenance Durable Won’t Decompose Used to level ground to make accessible	Sink into Soil Injuries-cuts & scrapes No nutrients to soil
Pea Gravel	Affordable Low Maintenance Natural Look	Injuries-cuts & scrapes Choking Hazard Hard to push wheelchairs
Patio Stone Pavers	Eliminate Runoff Better Traction Fit any size, style & colour Accessibility	Porous, will stain Can Crack-freezing/thawing Injuries-cuts & scrapes Cost
Wood Chips	Natural Look Retain Moisture in soil Provide carbon for soil	Uneven Ground Loose Colour/texture over time Attract bugs/insects

The area around and under the raised beds can have any number of ground covers to suit your needs. Use this table to help you choose what will work best with your budget and needs.

Note: If you choose anything other than clover, you will be confronted with the question of weather you should lay landscape fabric first. There are 2 schools of thought on this one… some say it is an extra cost, and some say it is essential. The reason why it might not seem needed is that, if the material is laid thick enough at the recommended volume, then in theory it should suppress the grass. All materials will require yearly maintenance and light weeding, regardless of choice.




CROP PLANNING

Your Micro-Farms goals AND capacity, will help determine what crops you decide to grow. The crop plan that we outline here, allows for maximum yields (and excitement) during school months with little tending during the summer. As a team, we chose high turn over crops, with a spring harvest and no summer fruiting crops as they yield when the students are not in school. When students return in the fall they are met with plenty root crops to harvest and a few new crops to seed and transplant as well. Note- students this spring altered the crop plan to include potatoes instead of spinach!

EDHS Farm Project Crop Plan 2018

Bed	Transplant & Direct Seed Date																							
	May-06	May-13	May-20	May-27	Jun-03	Jun-10	Jun-17	Jun-24	Jul-01	Jul-08	Jul-15	Jul-22	Jul-29	Aug-05	Aug-12	Aug-19	Aug-26	Sep-02	Sep-09	Sep-16	Sep-23	Sep-30	Oct-07	Oct-14	Oct-21	Oct-28
1	Arugula (Astro, 21 days baby, 6 rows, 3 seeds per inch) Transplants at farm							Carrots (Yaya, 60 days, 3 rows, 1 seed per inch)																		
2	Spinach (Regiment, 37 days, 5 rows, 2 seeds per inch) - Transplants at farm							Beets (Red Ace, 60 days, 5 rows, 1 seed per inch																		
4	Garlic (Planted in fall)																		Radish (French Breakfast and Sora)							
																			Salad Mix (transplant, 4 inches per plant, 1.5 rows each)							
5	Radish (French Breakfast, 26 days, 3 rows, 2 seeds per inch)							Beets (Chioggia, 60 days, 5 rows, 1 seed per inch)																		
6	Kale (Curly Roja, transplant, 8 inches per plant, 3 half rows) Kale (Darkibor, transplant, 8 inches per plant, 3 half rows)																									
7	Bok Choi (Shanghai Green, transplant, 6 inches per plant, 5 rows) Spicy Greens (Mizuna, 21 days, 3 rows, 3 seeds per inch) Spicy Greens (Red Giant Mustard, 23 days, 3 rows, 3 seeds per inch)							Zinnias and Sunflowers (transplants, 1 plant per foot, 3 rows)																		
8	Snap peas (Sugar Ann, 3 rows, 1 seed per inch)											Spinach (Renegade, 43 days, 5 rows, 2 seeds per inch)														
9	Swiss Chard (Rainbow Blend, transplant, 5 rows, 8 inches per plant)																									
10	Onions (Copra, transplant, 6 inches per plant, 3 rows)																		Arugula (Astro, 21 days baby, 6 rows, 3 seeds per inch)							
11	Salad Mix (Breen, Hampton, Buckley, New Red Fire, transplant, 6 inches per plant, 1.5 rows each)											Watermelon Radish (60 days, 5 rows, 1 seed per inch)														
12	Carrots (Dragon, 85 days, 1 seed per inch, 3 rows) Carrots (Cosmic Purple, 70 days, 1 seed per inch, 3 rows)																									

IMPORTANCE OF GOOD SOIL

Soil is the secret ingredient for your micro farm! It is the source for all your plants nutrients and the key indicator for moisture retention and plant yield. We believe so strongly in the importance of good soil that we go as far as telling visiting school children to Everdale, that we are actually Soil Farmers and not Vegetable Farmers! Time spent sourcing good soil, is time well spent! That aside, we understand that it is difficult to know where to start and what to consider so here's a break down.

Peat moss or **coconut coir** are our favorite components and essential for raised beds. The reason we love them is that they don't compact, they absorb water and they provide great aeration for the plants and roots. **Compost** is also an essential ingredient as it adds nutrients, carbon, and organic matter which provides habitat to beneficial soil organisms like bacteria and fungi. When sourcing compost, make sure it is weed & seed free. Sheep compost is a great choice as sheep are the only ruminant that break seeds down in their rumen – giving weed free manure that can be turned into compost. Here are 2 simple mixes that we have had success with.

- 50% Peat Moss or Coconut Coir + 50% Compost (contains organic matter)
- 20% Topsoil + 30% Compost (contains organic matter) + 30% Peat or Coconut + 20% Growing Mix

Amendments - Your plant choices may indicate that you consider adding soil amendments, like kelp and bone meal, to meet nutrient requirements, and others to adjust soil pH. Amendments are added in different ways, but primarily they are added in small quantities as a side dress to the plant.

CALCULATING SOIL VOLUME

VOLUME FORMULA = Length (in feet) X Width (in feet) x Height (in feet) ÷ 27

Example : we need to order soil for 3 garden beds that is 6’ x 2’ x 36”

- **Step 1 -** Convert the dimensions into feet i.e. 36” ÷ 12” = 3
- **Step 2-** Multiply Length x Width x Height - 6' x 2' x 3' = 36 cubic feet
- **Step 3-** Divide 36 ÷ 27 = **1.33 cubic yards**
- **Step 4-** 1.33 x 3 = **3.99 cubic yards** of soil is needed for all 3 beds in this project

What if is used bagged soil?

- **Soil** is commonly packaged in 40 lb bags or 1 cubic foot bag sizes. For 1 yard, you will need **27** bags of soil.
- **Stone** is commonly packaged in 1/2 cubic foot bags. For 1 cubic yard, you will need **54** bags of stone.

BUDGETING

Micro-Farm Start up Budget (no HST)

Raised beds, soil & mulch	$3,000.00	Materials & tools	$ 1,750.00	Seeds	$ 150.00	Signage	$500.00	Seating	$ 750.00
10 x 8 ft steel plat	$ 1,600.00	1000 g water tank	$ 150.00	local seed	$ 150.00	chalkboards	$ 150.00	picnic tables	$ 500.00
soil	$ 500.00	hoses & cuplings	$ 300.00			10 ft banner	$ 75.00	benchs	$ 250.00
mulch	$ 500.00	hose reel	$ 150.00			Pop up banner	$ 100.00		
contractor (level gound)	$ 500.00	hand tools	$ 75.00			Outreach	$ 100.00		
		gloves	$ 60.00			Gardnen signs	$ 75.00		
		shovels, forks, hoe	$ 250.00						
		harvest bins	$ 50.00						
		rulers, string, tape r	$ 30.00						
		watering cans	$ 80.00						
		toolbox (kept inside	$ 150.00						
		educational tools	$ 300.00						
		other	$ 155.00						
total	$ 3,100.00	**total**	$ 1,750.00	**total**	$ 150.00	**total**	$ 500.00	**total**	$ 750.00
remaining	**-$ 100.00**	**remaining**	**$ -**	**remaining**	**$ -**	**remaining**	**$ -**	**remaining**	**$ -**
	$ 3,100.00		**$ 1,750.00**		**$ 150.00**		**$ 500.00**		**$ 750.00**
Totoal	**$ 6,250.00**								

This is a sample budget for a Micro-Farm installed in 2017/18. There was some machinery that was needed to spread some crushed limestone for seating, but the time was donated by the contractor as they were school alumni! Four more beds were then purchased for the project.