

An illustration of a man with dark skin and curly hair, wearing a white t-shirt and grey pants, standing on a balcony. He is looking down at a small white object on the railing. The balcony is filled with various plants, including a hanging basket, a potted tree, and several trays of seedlings. Laundry is hanging on a line to the left. The balcony is part of a brick building. In the background, there are other buildings and a tree. In the foreground, a street scene is shown with several people walking, a bicycle, and a dog. The overall style is a colorful, stylized illustration.

CHRIS'S ADVENTURE

A Guide to Safe
Urban Gardening

Illustrated by Sophie Holin

ACKNOWLEDGEMENTS

A TREMENDOUS THANK YOU TO THE EPA BROWNFIELDS AND LAND REVITALIZATION PROGRAM FOR PROVIDING GRANT FUNDING TO SUPPORT GROUNDWORK USA'S BROWNFIELDS AND EQUITABLE DEVELOPMENT TECHNICAL ASSISTANCE PROGRAM AND THE DEVELOPMENT OF THIS GUIDE. SPECIAL THANK YOU TO SOPHIE HOLIN FOR A FANTASTIC VISUAL ADAPTATION OF OUR SAFE GARDENING AND GREENING RESOURCES, TO ADI NOCHUR FOR MANAGING THE COMPLETION OF THIS GUIDE, AND TO ABBIE DUSSELDORP AND MARIA BRODINE FOR THEIR DETAILED COMMENTS AND FEEDBACK.



"GARDENING IS THE MOST THERAPEUTIC AND DEFIANT ACT YOU CAN DO, ESPECIALLY IN THE INNER CITY.... PLUS YOU GET STRAWBERRIES."

- RON FINLEY, TED TALK



BEEP.. BEEP... BEEP.. BEEP.. BEEP.. BEEP.. BEEP..

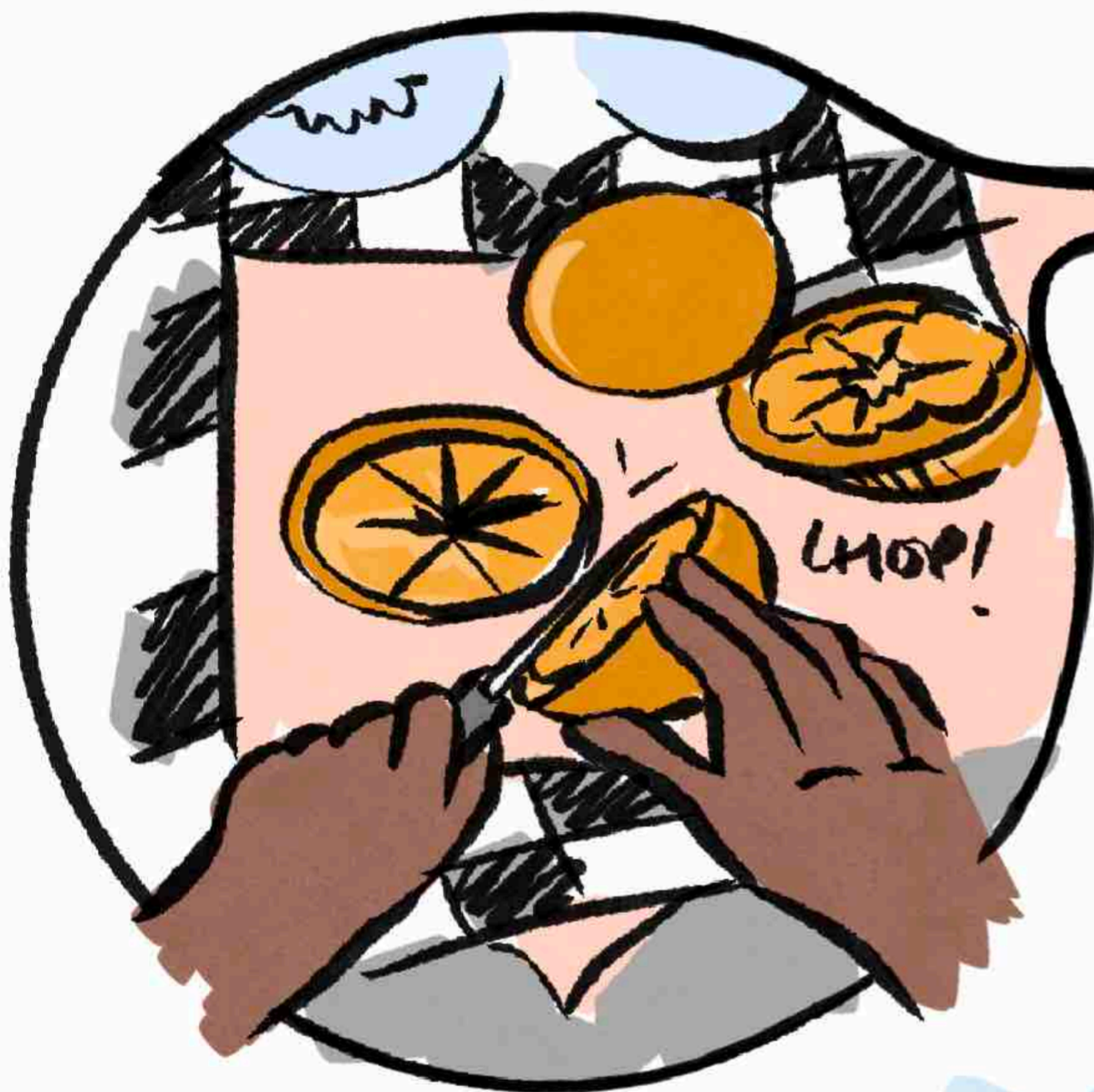
HI, MY NAME IS CHRIS.



I'M EXCITED TO TAKE YOU WITH ME TODAY...



.....ON AN URBAN GARDEN ADVENTURE!



STARTING MY DAY WITH A GOOD BREAKFAST MAKES ME FEEL LIKE A SUPERHERO! VITAMIN C, E, CALCIUM AND IRON FROM FRUITS LIKE ORANGES CAN REDUCE LEAD ABSORPTION. THIS IS ONE OF THE SMALL WAYS I PROTECT MYSELF IN CASE ANY TOXINS REMAIN IN THE SOIL THAT I'LL BE WORKING WITH AT THE COMMUNITY GARDEN LATER.



BUT BEFORE I GO ANYWHERE...

I HAVE TO CHECK ON MY PATIO CONTAINER GARDEN!

basket ball

soda bottles

THERE ARE SO MANY WAYS TO USE RECYCLED MATERIALS IN YOUR SPACE, HOWEVER BIG OR SMALL THAT SPACE IS.

egg carton

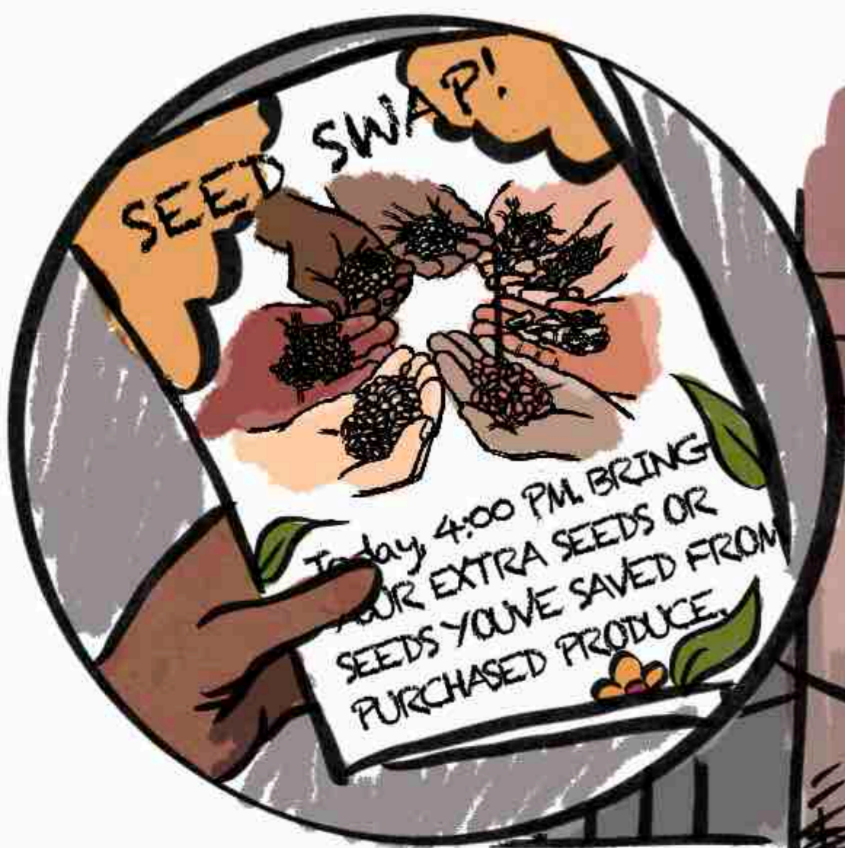
milk gallon

wax-free coffee cups

NOW THAT MY GARDEN IS HAPPY, TIME TO GET A CUP OF COFFEE.

I LEAVE MY GARDEN BOOTS AT THE DOOR SO I DON'T ACCIDENTALLY TRACK SOIL WITH HARMFUL SUBSTANCES INTO MY HOME.

TODAY WE'RE DOING A SEED SWAP AT THE COMMUNITY GARDEN. I'M PASSING OUT FLYERS AROUND TOWN TO LET OTHER GARDENERS KNOW THEY CAN BRING SEEDS TO SHARE.





HEY MR. RON! HOW'S IT GOING MAN.

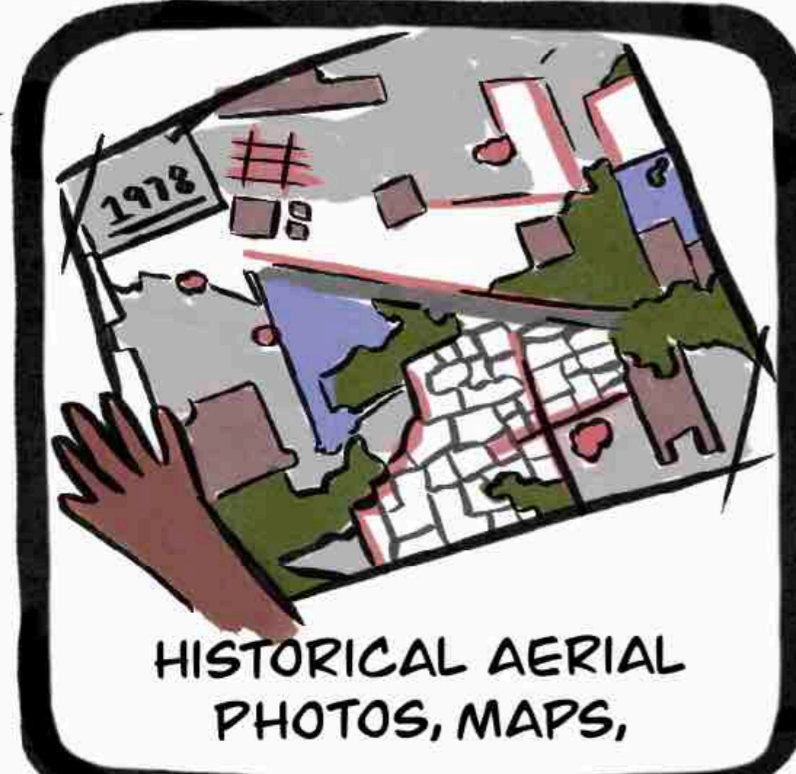
CHRIS!
GOOD MORNING.

YOU ON YOUR WAY TO THAT GARDEN AGAIN?

I EVER TELL YOU HOW THAT SPOT USED TO BE A PAINT FACTORY? YOU MIGHT NOT BELIEVE IT BUT I WAS THE TOP ENGINEER! LET ME TELL YOU...



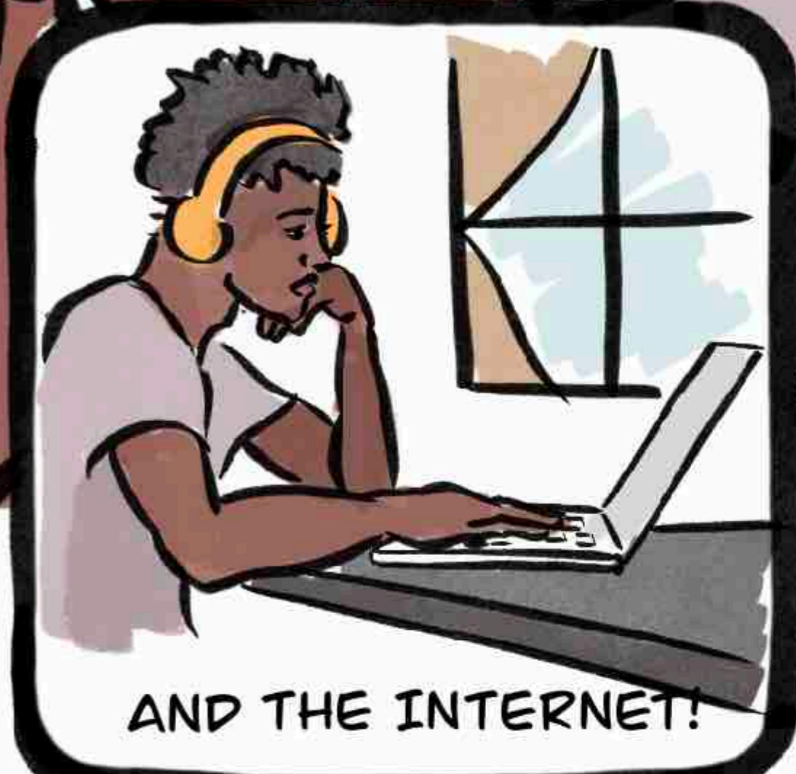
YES, IT'S TRUE, BEFORE OUR COMMUNITY CAME TOGETHER, THE GARDEN USED TO BE A BROWNFIELD -- A PROPERTY THAT MAY BE CONTAMINATED WITH HAZARDOUS SUBSTANCES. WE RESEARCHED THE HISTORY OF THE SITE USING...



HISTORICAL AERIAL PHOTOS, MAPS,



CITY/COUNTY RECORDS,



AND THE INTERNET!



WE ALSO DID SOME IN-PERSON INVESTIGATION. THE SITE LOOKED AND SMELLED LIKE A MESS! IT WAS TOO DIFFICULT AND DANGEROUS TO CLEAN UP ON OUR OWN.



AND DUG IN FOR THE TRANSFORMATION.

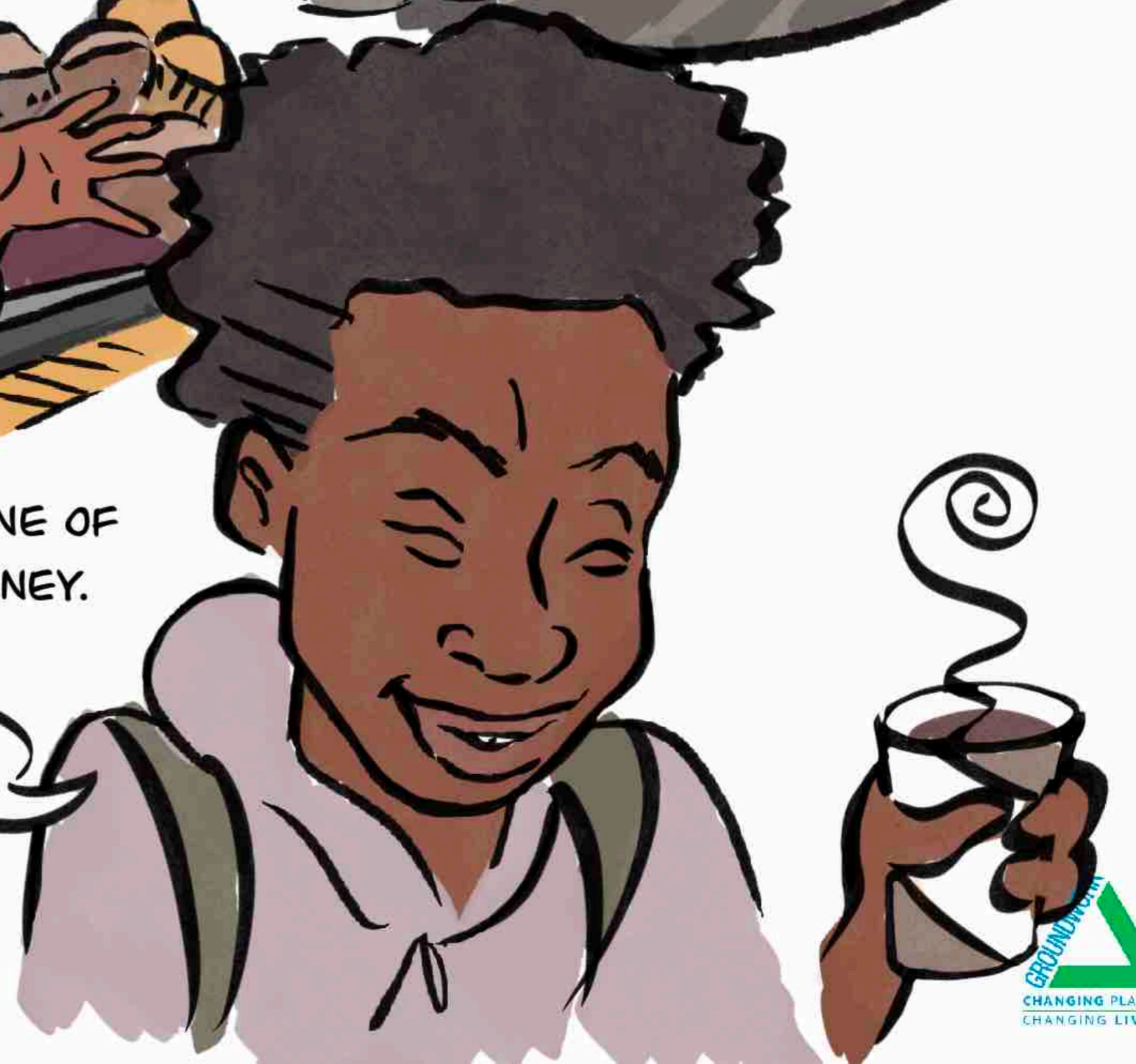
SO, WITH SOME HELP FROM LOCAL AND STATE GOVERNMENT, OUR NEIGHBORS CAME TOGETHER,

BUILT A VISION FOR A GARDEN,



AND OF COURSE, STORYTELLING IS ONE OF THE MOST FUN PARTS OF THE JOURNEY.

GETS FUNNIER EVERY TIME, MR. RON.



MANY COMMUNITIES LIKE MINE HAVE BEEN EXPOSED TO POLLUTION AND INDUSTRY...

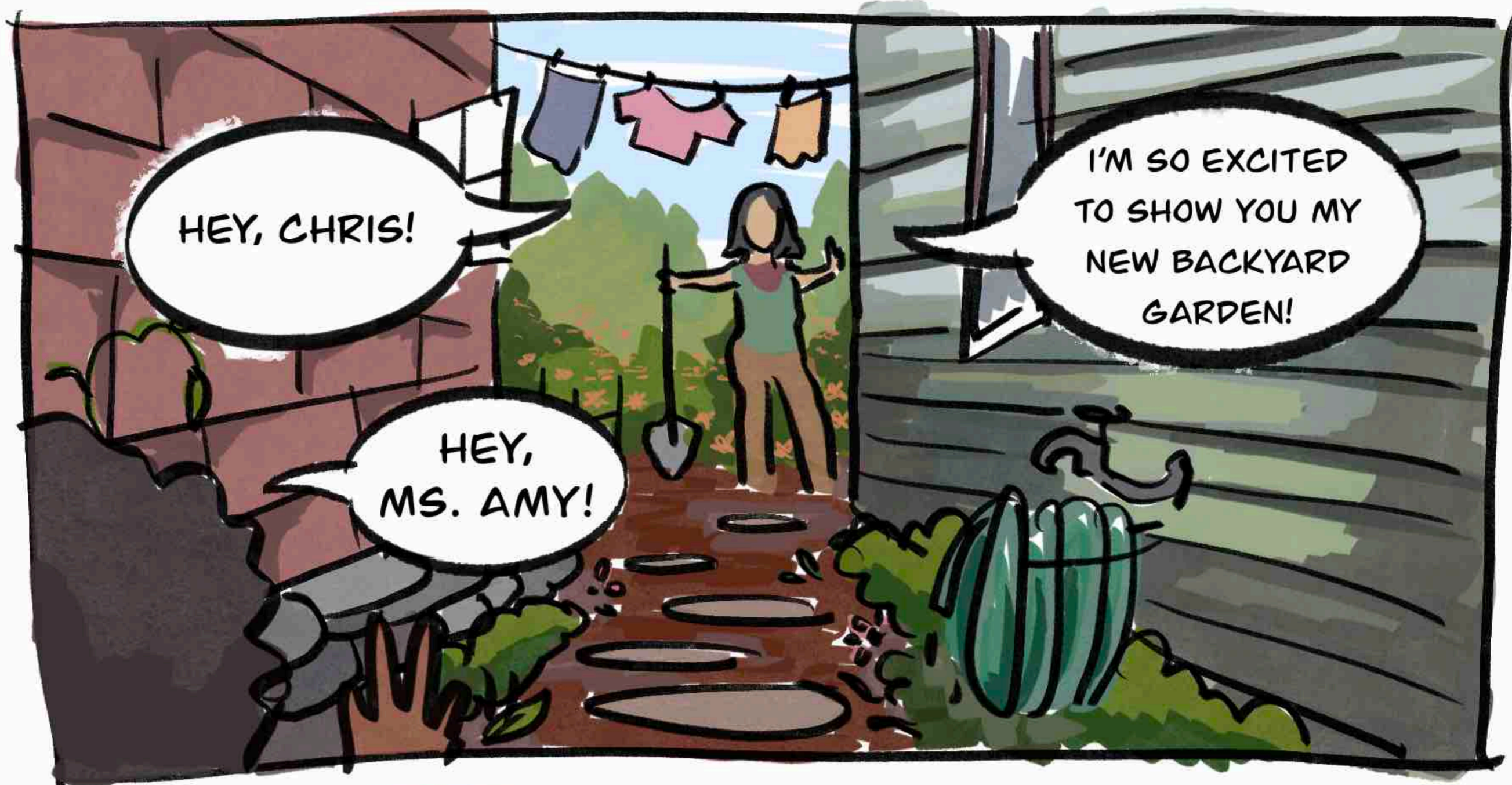


...LIKE HIGHWAYS, TOXIC WASTE SITES, AND FACTORIES (LIKE THE ONE MR. RON USED TO WORK FOR). LOW-INCOME AREAS AND COMMUNITIES OF COLOR ARE ESPECIALLY EXPOSED.



BUT I'M GOING TO SHOW YOU HOW WE'RE TAKING BACK THE CITY BY SAFELY TRANSFORMING POLLUTED SPACES INTO GREEN PLACES!





BEFORE I COULD PLANT SAFELY, I HAD TO GET TO KNOW MY SOIL. IT'S IMPORTANT TO TEST YOUR SOIL FOR HARMFUL SUBSTANCES BECAUSE THEY CAN MAKE YOUR VEGETABLES TOXIC!



THE BIGGEST HAZARD TO WORRY ABOUT IS LEAD. THERE ARE NO SAFE LEVELS OF LEAD. MOST CITIES HAVE HIGH LEVELS OF LEAD IN THE SOIL SO IT'S IMPORTANT TO TEST FOR IT.

I MAPPED EACH PART OF THE GARDEN, TOOK SOIL SAMPLES FROM THEM, AND SENT THE SAMPLES TO A LOCAL LAB.



COOL!
SO WHAT WERE THE TEST RESULTS?

I LEARNED THAT MY BACKYARD HAS NO TRACES OF LEAD AND THAT THE TOXINS ARE AT SAFE LEVELS, WHICH MEANS I CAN PLANT IN THE SOIL! HOWEVER, I STILL WANT TO GARDEN SAFELY TO REDUCE MY EXPOSURE TO ANY HARMFUL SUBSTANCES.

A MASK CAN PREVENT YOU FROM BREATHING IN ANY TOXIC DUST PARTICLES IN THE AIR.

GLOVES KEEP YOUR FINGERNAILS AND HANDS CLEAN AND PROTECT THEM FROM SHARP OBJECTS.

ADDING CLEAN WOOD CHIP MULCH TO THE PLANTS AND PLANT ROWS PREVENTS DUST AND OTHER CONTAMINANTS FROM BLOWING AROUND.



THANKS FOR THE TOUR, MS. AMY! I GOTTA RUN BUT REMEMBER TO BRING YOUR SEEDS FOR THE SEED SWAP AT THE COMMUNITY GARDEN LATER!

OF COURSE! WOULDN'T MISS IT.





TO GROW FOOD SAFELY, URBAN GARDENERS LIKE MS. AMY NEED TO PROTECT THEMSELVES AND THEIR PLANTS FROM POLLUTION FROM ROADS, FACTORIES, AND OTHER INDUSTRIES.



OH, HEY! MS. TATI!

HOW ARE YOU?

OH, CHRIS! HEY! I'M GOOD, YOU?

I'M GOOD! LISTEN, I GOTTA RUN BUT I HAVE SOMETHING FOR YOUR STUDENTS FROM THE GARDEN!

FRESH APPLES! AS ALWAYS, I MADE SURE TO WASH THEM WELL SO THAT THERE ARE NO TOXINS ON THEM.

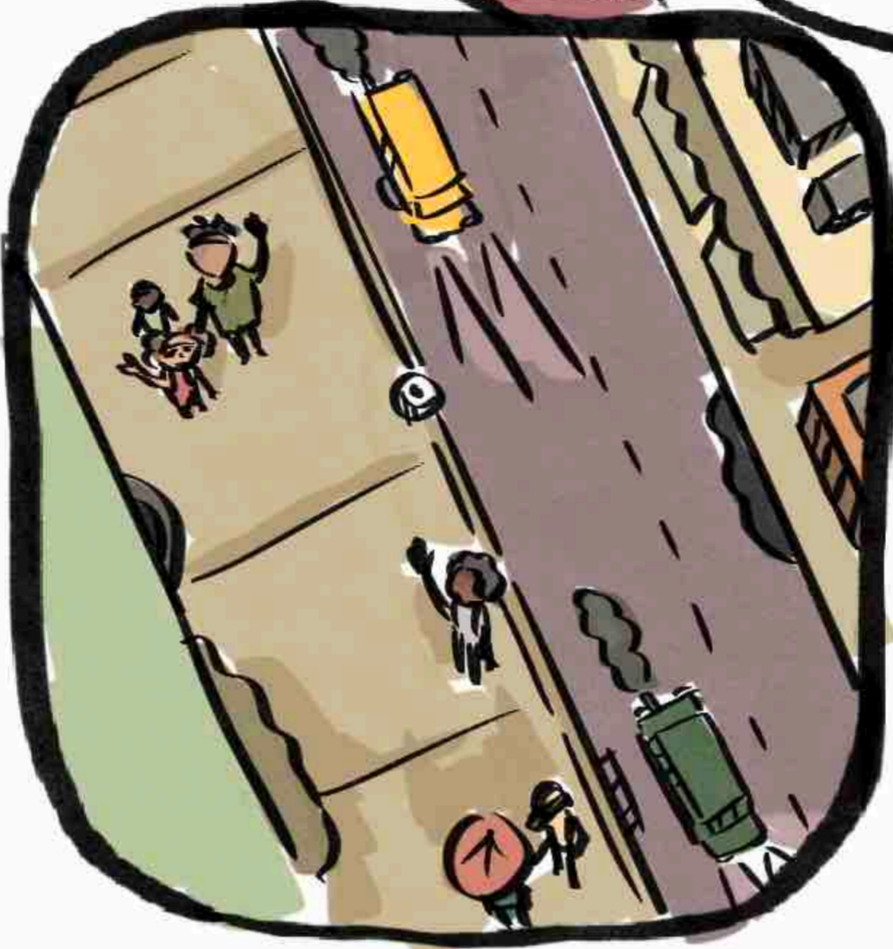
THAT'S EXTRA IMPORTANT FOR GROWING KIDS LIKE ME, RIGHT MR. CHRIS?

THAT'S RIGHT, CLEO!

EATING NUTRITIOUS SNACKS SUCH AS FRESH FRUIT, NUTS, AND VEGGIES THROUGHOUT THE DAY IS KEY TO GROWING STRONG AND STAYING HEALTHY.

YOU AND MS. TATI SHOULD COME BY THE GARDEN LATER TO GET SOME SEEDS TO GROW YOUR OWN DELICIOUS SNACKS!

YEAH, COOL!



SEE Y'ALL LATER THEN!



YO, IS THAT YOU MR. TONY?

CHRIS! WHAT'S NEW!



NOT MUCH,
HOW'S IT GOING WITH
YOU?

AH YOU KNOW, THAT TIME OF YEAR AGAIN.
I HAVE TO ADD FRESH TOPSOIL AND ORGANIC MATTER TO MY
RAISED BEDS EVERY YEAR BECAUSE IT REDUCES RISKS FROM
ANY NEW TOXINS THAT MIGHT HAVE SETTLED HERE.



TRUE.



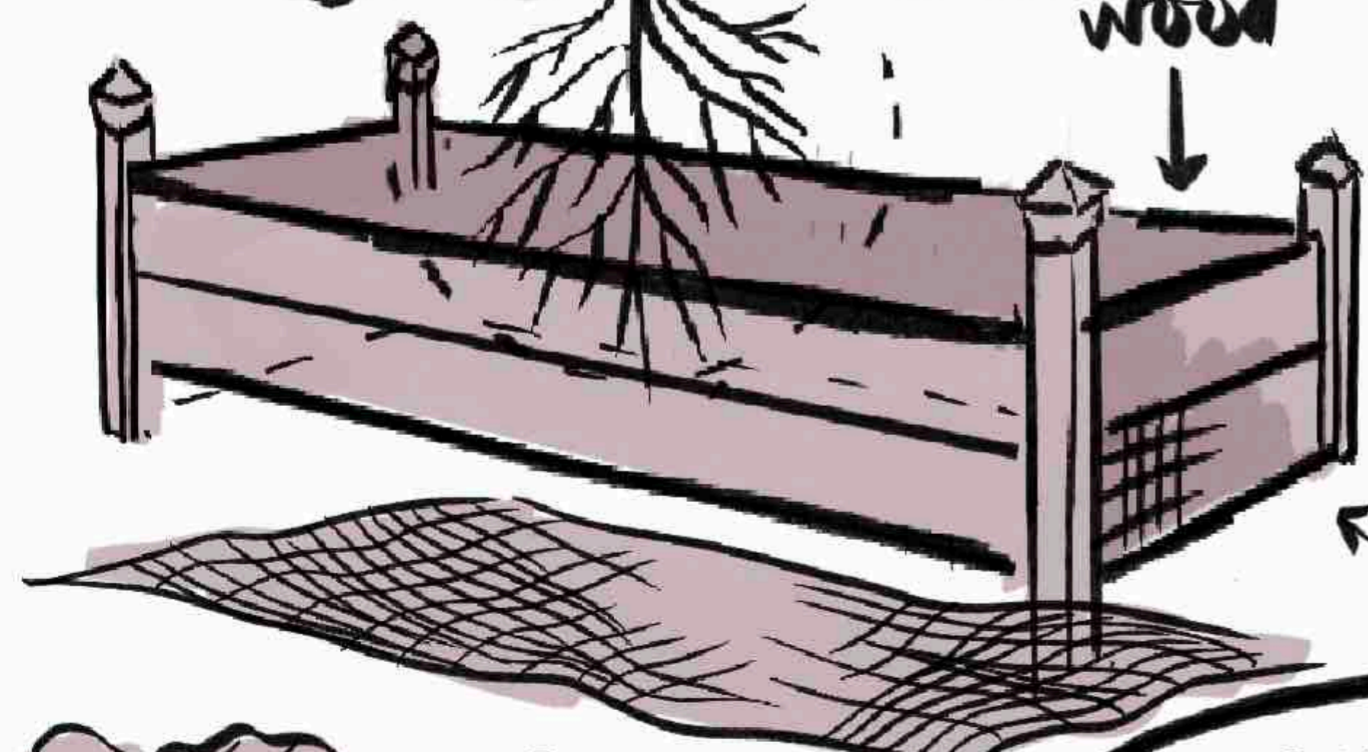
CHECK EM' OUT!
SINCE THE SOIL IN MY YARD TESTED HIGH
IN LEAD, I BUILT THESE BEDS TO ALLOW MY
PLANTS TO GROW IN CLEAN SOIL.

THEY ALSO HELP ME REACH MY PLANTS
COMFORTABLY WITH MY BACK PROBLEMS.

plant

clean
soil

clean
wood



Contaminated
soil

I ALSO PLANTED
ROSE BUSHES ON THE EDGE
OF MY GARDEN TO ABSORB DIRTY
STORMWATER, FILTER THE AIR,
AND PROVIDE A BUFFER.





KEEP UP THE GOOD WORK THERE MR. TONY. GOTTA RUN BUT I'LL CATCH YOU AT THE GARDEN!

YEAH, SEE YA AT THE SEED SWAP!



THERE'S STILL ONE MORE PLACE I WANT TO SHOW YOU.



WE'VE BEEN PROACTIVE, RECLAIMING THE CITY TO GROW FOOD AND COMMUNITY IN SAFE SPACES FOR EVERYONE.





HEY, EVERYONE!

WOW THE GARDEN LOOKS AMAZING!

LONG TIME NO SEE!

HEY, CHRIS!

HEY YOU!

MR. CHRIS! MS. TATI WAS JUST TELLING ME HOW THIS GARDEN USED TO BE A PAINT FACTORY! IS THAT TRUE?

THAT'S RIGHT CLEO! WE WORKED TOGETHER TO TURN IT INTO A SAFE PLACE TO GROW FOOD.



TO GROW HEALTHY PLANTS, WE START WITH HEALTHY SOIL.
IF YOUR SOIL HAS BEEN TESTED AS SAFE AND NON-TOXIC, YOU CAN STILL
MAKE IT EVEN SAFER AND HEALTHIER FOR PLANTS TO GROW.

LIKE MS. AMY IS
DOING OVER THERE!

HI AGAIN,
CHRIS! WE'RE
ADDING LIME MIX
AND COMPOST. BOTH
ARE GOOD THINGS TO
IMPROVE THE SOIL
QUALITY.

NICE! LOOKS LIKE
YOU'LL BE READY TO
PLANT SOME SEEDS
SOON. CAN YOU TELL
US WHAT'S GROWING
OVER HERE?

WE CHOSE THIS TYPE
OF TOMATO BECAUSE IT
FRUITS HIGH ABOVE THE
GROUND. THIS REDUCES THE
CHANCES FOR CONTACT
WITH THE SOIL.

SOME PLANTS ABSORB
TOXINS FROM THE SOIL INTO
THEIR ROOTS OR LEAVES AS THEY
GROW. SO AVOID GROWING ROOT
VEGETABLES LIKE CARROTS

OR LEAFY GREENS LIKE SPINACH UNTIL
THE SOIL IS TESTED AND RESTORED.

- OR UNTIL YOU HAVE
SOME SWEET RAISED
BEDS LIKE MINE!

HA! HEY MR. TONY,
THAT'S RIGHT!



MR. CHRIS, WHY ARE THERE SO MANY ANIMALS HERE?

THEY LOVE THE CLEAN AIR AND SOIL AS MUCH AS WE DO! IT'S THE BEST PLACE IN THE CITY FOR EVERYONE. LET'S GO CHECK OUT THE SEED SWAP AND SEE WHAT KINDS OF PLANTS YOU COULD GROW AT HOME.

SEED SWAP



15

THANK YOU FOR COMING ALONG FOR AN URBAN GARDEN ADVENTURE! WE KNOW THAT YOU CAN DO IT TOO AND WE CAN'T WAIT TO SEE WHAT YOU GROW!



SAFE URBAN GARDENING REVIEW

THERE ARE MANY BENEFITS OF URBAN GARDENING AND FARMING! MANY STUDIES SHOW CONNECTIONS BETWEEN URBAN FOOD PRODUCTION AND PUBLIC HEALTH, INCLUDING IMPROVED NUTRITION, GREATER PHYSICAL ACTIVITY LEVELS, AND INCREASED COMMUNITY ACCESS TO HEALTHY FOODS FOR EVERYONE. CHILDREN WHO GARDEN ARE MORE LIKELY TO TRY VEGETABLES, ENJOY THEM, AND EAT MORE OF THEM.



SOCIAL BENEFITS INCLUDE INCREASED SOCIAL INTERACTION, MORE JOB OPTIONS, AND IMPROVED UNDERSTANDING OF ECOSYSTEMS AND NATURAL PROCESSES. THERE ARE HUGE ENVIRONMENTAL BENEFITS TOO. URBAN GARDENS, FARMS, ORCHARDS, AND OTHER GREEN SPACES PROVIDE HABITAT FOR ANIMALS, INCLUDING POLLINATORS LIKE BEES AND BUTTERFLIES. THEY ALSO HELP TO CLEAN THE SOIL AND WATER, IMPROVING ENVIRONMENTAL QUALITY FOR EVERYONE.

SAFE URBAN GARDENING CHECKLIST ✓

ON-SITE

- WEAR GLOVES AND A MASK TO AVOID TOUCHING OR INHALING TOXINS
- TEST SOIL FOR HARMFUL SUBSTANCES LIKE LEAD
- INCORPORATE CLEAN SOIL AND COMPOST EACH YEAR TO IMPROVE SOIL HEALTH
- BUILD RAISED BEDS WITH CLEAN SOIL TO AVOID PLANTING IN CONTAMINATED SOIL
- GROW PLANTS THAT ARE LESS LIKELY TO ABSORB TOXINS
- MULCH WALKWAYS AND AREAS WHERE PLANTS AREN'T BEING GROWN TO TRAP DUST AND CONTAMINANTS
- PLANT SHRUBS AND BUSHES AROUND THE EDGES OF YOUR GARDEN AS A BUFFER
- USE SPECIAL CARE WITH CHILDREN BECAUSE THEY ARE MORE SENSITIVE TO HARMFUL SUBSTANCES LIKE LEAD

OFF-SITE

- WASH YOUR HANDS, CLOTHES, AND FOOD TO GET RID OF DIRT AND TOXINS
- LEAVE SHOES AT THE DOOR TO AVOID TRACKING CONTAMINATED SOIL INTO YOUR HOME
- EAT HEALTHY FRUITS AND VEGGIES. CITRUS FRUITS LIKE ORANGES AND LEMONS AND DARK LEAFY VEGGIES LIKE SPINACH AND KALE THAT ARE RICH IN VITAMIN C, CALCIUM, AND IRON.

GROUNDWORK USA IS THE ONLY NETWORK OF LOCAL ORGANIZATIONS DEVOTED TO TRANSFORMING THE NATURAL AND BUILT ENVIRONMENT OF LOW-RESOURCE COMMUNITIES -- A NATIONAL ENTERPRISE WITH LOCAL ROOTS, WORKING AT THE INTERSECTION OF THE ENVIRONMENT, EQUITY, AND CIVIC ENGAGEMENT.

WE ARE COMMITTED TO:

- PURSUING A FUTURE IN WHICH EVERYONE'S NEIGHBORHOOD ENVIRONMENT IS GREEN, HEALTHY AND RESILIENT,
- UNDOING LEGACIES OF POVERTY AND RACIAL DISCRIMINATION, AND
- BREAKING THE TREND OF WIDENING DISPARITY BETWEEN COMMUNITIES THAT ARE ENJOYING A RENAISSANCE AND COMMUNITIES THAT ARE EXPERIENCING DISINVESTMENT, NEGLECT, AND DEEPENING POVERTY.

WE BELIEVE IN LEADING BY DOING. WE SEEK TO BROADEN PARTICIPATION BY PRODUCING TANGIBLE IMPROVEMENTS IN PEOPLE'S LIVES, STAYING POSITIVE, AND LEARNING AT EVERY STEP OF THE WAY.

[HTTP://WWW.GROUNDWORKUSA.ORG/](http://www.groundworkusa.org/)

