



SOIL DETECTIVE TRAINING!

WORKBOOK AND GLOSSARY

BROUGHT TO YOU BY: CHASTEN GOLD
& DEPT. OF TOXIC SUBSTANCES
CONTROL (DTSC) TECHNICAL
ASSISTANCE (TAG) GRANT FUNDING



CHASTEN GOLD NONPROFIT
EVEN THE SMALLEST CONTRIBUTION
CAN MAKE THE BIGGEST DIFFERENCE.





– WORKBOOK – SOIL DETECTIVE TRAINING!

WELCOME TO SOIL DETECTIVE TRAINING!

HELLO, FUTURE SOIL DETECTIVE!

HAVE YOU EVER WONDERED WHAT IS HIDING BENEATH YOUR FEET? THE GROUND WE WALK ON EVERY DAY IS CALLED SOIL. SOIL HELPS PLANTS GROW, PROVIDES HOMES FOR TINY ANIMALS, AND SUPPORTS THE PLACES WHERE WE LIVE, LEARN, AND PLAY.

SOMETIMES, HARMFUL SUBSTANCES CAN GET INTO SOIL, WATER, OR AIR. SCIENTISTS, COMMUNITY MEMBERS, AND ENVIRONMENTAL EXPERTS WORK TOGETHER TO FIND THESE SUBSTANCES AND MAKE SURE OUR NEIGHBORHOODS STAY SAFE AND HEALTHY. AS A SOIL DETECTIVE, YOUR MISSION IS TO LEARN IMPORTANT WORDS USED DURING ENVIRONMENTAL CLEANUP PROJECTS. THESE WORDS HELP EXPLAIN HOW SCIENTISTS TEST SOIL, HOW COMMUNITIES STAY INFORMED, AND HOW CLEANUP TEAMS PROTECT PEOPLE AND THE ENVIRONMENT.

INSIDE THIS WORKBOOK AND GLOSSARY, YOU WILL LEARN ABOUT:

- SOIL AND GROUNDWATER
- ENVIRONMENTAL TESTING
- COMMUNITY SAFETY
- CLEANUP PROJECTS
- SCIENTIFIC INVESTIGATIONS
- FUN WORKSHEETS

DON'T WORRY IF SOME OF THE WORDS SEEM BIG AT FIRST. EVERY GREAT DETECTIVE STARTS BY LEARNING NEW THINGS! AS YOU READ THROUGH THE GLOSSARY, PRACTICE TRACING WORDS, COMPLETE ACTIVITIES, AND CHALLENGE YOURSELF TO LEARN SOMETHING NEW. BY THE TIME YOU FINISH, YOU'LL HAVE THE SKILLS OF A JUNIOR SOIL DETECTIVE AND A BETTER UNDERSTANDING OF HOW COMMUNITIES WORK TOGETHER TO KEEP NEIGHBORHOODS SAFE AND HEALTHY. NOW GRAB YOUR DETECTIVE NOTEBOOK, PUT ON YOUR IMAGINARY DETECTIVE HAT, AND LET'S START SOLVING THE MYSTERY OF WHAT'S BENEATH OUR FEET!

HAPPY DETECTING!



SOIL DETECTIVE KENYA



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SOIL DETECTIVE TRAINING!

SOIL DETECTIVE TRAINING CHECKLIST

HAVE YOU COMPLETED THE SOIL DETECTIVE TRAINING?

WATCH
WORKSHOP #1



WATCH
WORKSHOP #2



WATCH
WORKSHOP #3



READ "THE DAY I MET
CAPTAIN FRESH!"



READ THE SOIL
DETECTIVE
GLOSSARY

PRINT OUT
BADGE,
RIBBON AND
CERTIFICATE!

SHARE YOUR EXPERIENCE AND PHOTOS TO BE FEATURED ON



OUR SOCIAL MEDIA AND VIDEOS AT:

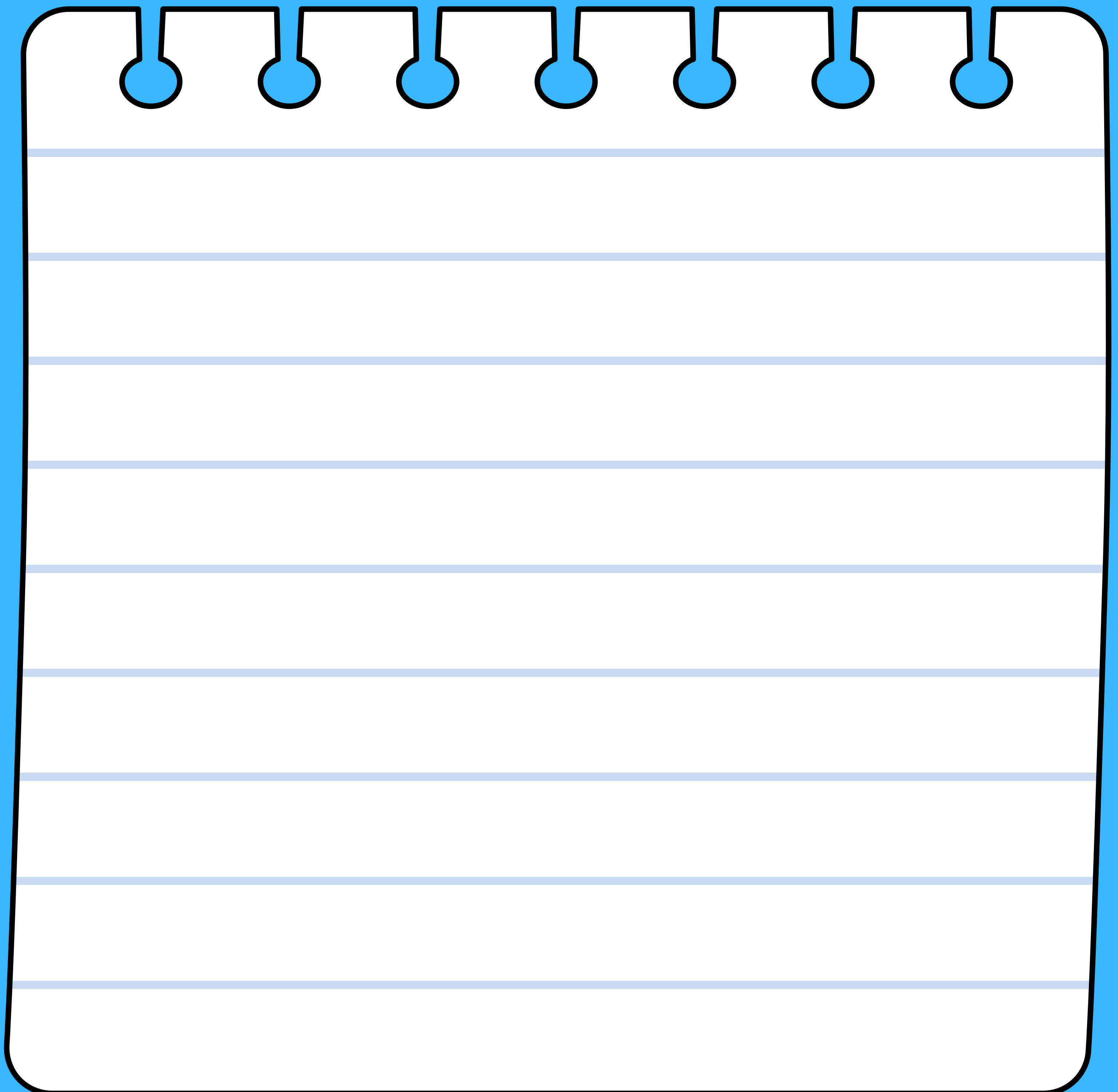
INSTAGRAM @CHASTENGOLDNP

OR EMAIL SUPPORT@CHASTENGOLD.ORG

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SOIL DETECTIVE TRAINING!

SOIL DETECTIVE NOTEBOOK



A spiral-bound notebook with a white cover and blue rings. The notebook is open to a blank page with horizontal blue lines. The cover has a green header area with the text "– WORKBOOK –" and "SOIL DETECTIVE TRAINING!". Below the header, the text "SOIL DETECTIVE NOTEBOOK" is written in a large, bold, blue font. The notebook is set against a solid blue background.

- WORKBOOK -

SOIL DETECTIVE TRAINING!



SPRING

– WORKBOOK –

SOIL DETECTIVE TRAINING!

DETECTIVE RULES:

ALWAYS BE CURIOUS

ALWAYS BE KIND

ALWAYS LISTEN

ALWAYS STAY SAFE

ALWAYS ASK QUESTIONS

ALWAYS HELP OTHERS

ALWAYS PROTECT NATURE

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ENVIRONMENTAL CREW CARDS

SCIENTIST

ENVIRONMENTAL SCIENTISTS
TESTS SOIL.

ENGINEERS

ENGINEERS PLAN BIG
CLEANUP PROJECTS.

CONSTRUCTION WORKERS

CONSTRUCTION WORKERS
USE AMAZING MACHINES
EVERYDAY.

TRUCK DRIVERS

TRUCK DRIVERS MOVE SOIL
AND OTHER DEBRIS AWAY
FROM THE SITE.

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SOIL DETECTIVE TRAINING!

ENVIRONMENTAL CREW CARDS

INSPECTOR

ENVIRONMENTAL INSPECTORS
MAKE SURE THE CLEAN-UP IS
DONE CORRECTLY.

TEACHERS

TEACHERS HELP US LEARN
EVERYDAY DAY.

NEIGHBORS

NEIGHBORS ARE PEOPLE THAT
LIVE CLOSE TO US.

VOLUNTEERS

VOLUNTEERS HELP TO MAKE
A PROJECT HAPPEN.

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ENVIRONMENTAL CREW CARDS

FIRE FIGHTERS

FIRFIGHTERS HELP PUT OUT
FIRES AND KEEP US SAFE.

PARK WORKERS

PARK WORKERS HELP KEEP OR
PARKS AND PLAYGROUND
SAFE.

PARENTS AND CAREGIVERS

PARENTS AND CAREGIVERS
LOVE US AND SUPPORT US
EACH DAY.

COMMUNITY LEADERS

COMUNITY LEADERS USE
THEIR VOICE TO GET THINGS
DONE.

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ENVIRONMENTAL CREW CARDS

WRITE YOUR NAME

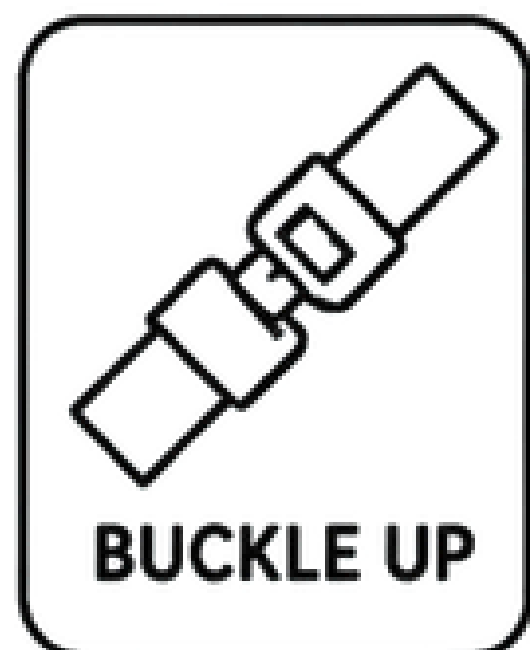
DRAW A PICTURE OF YOURSELF.

I AM A SOIL SAFETY HERO!

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SAFETY FIRST!



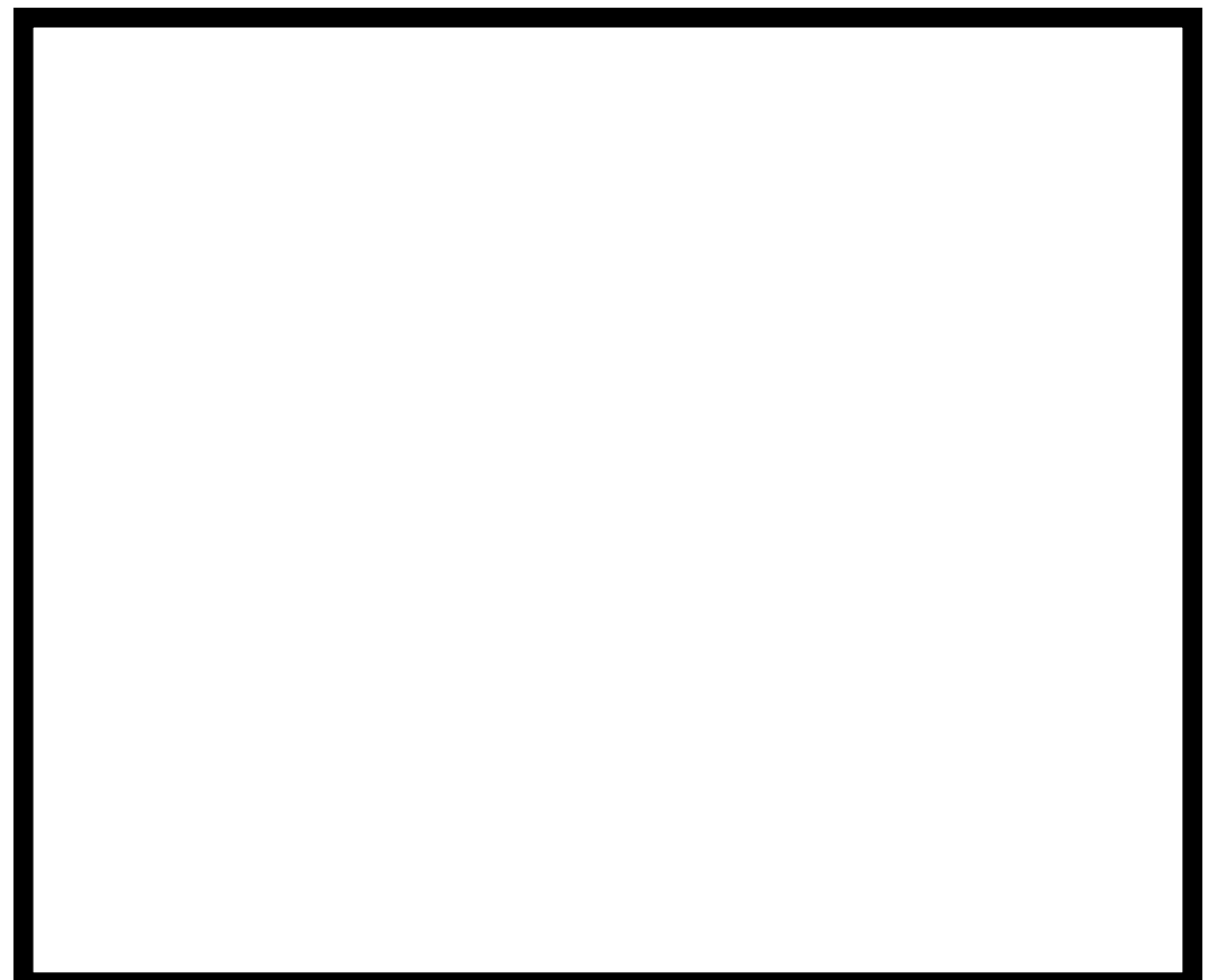
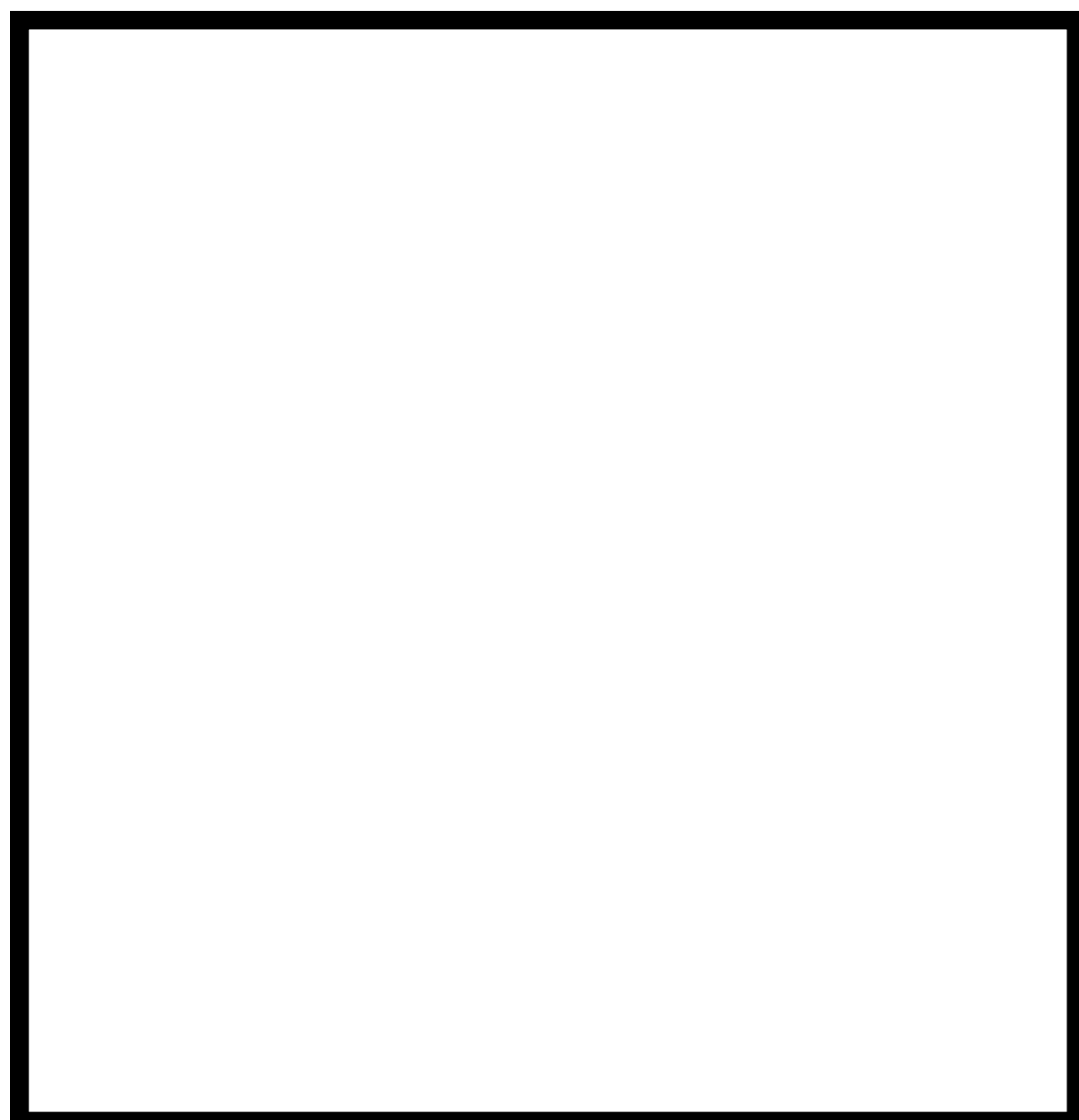
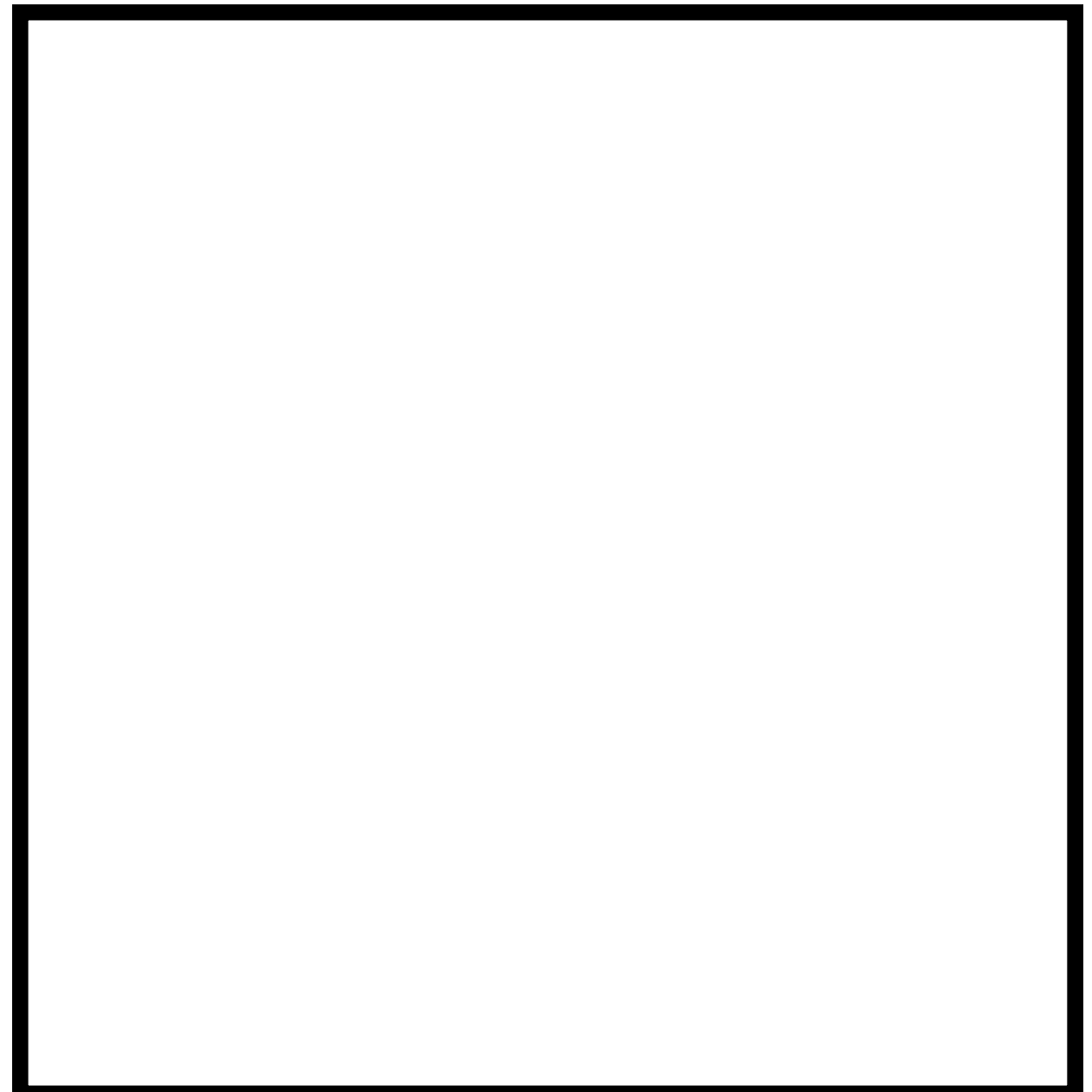
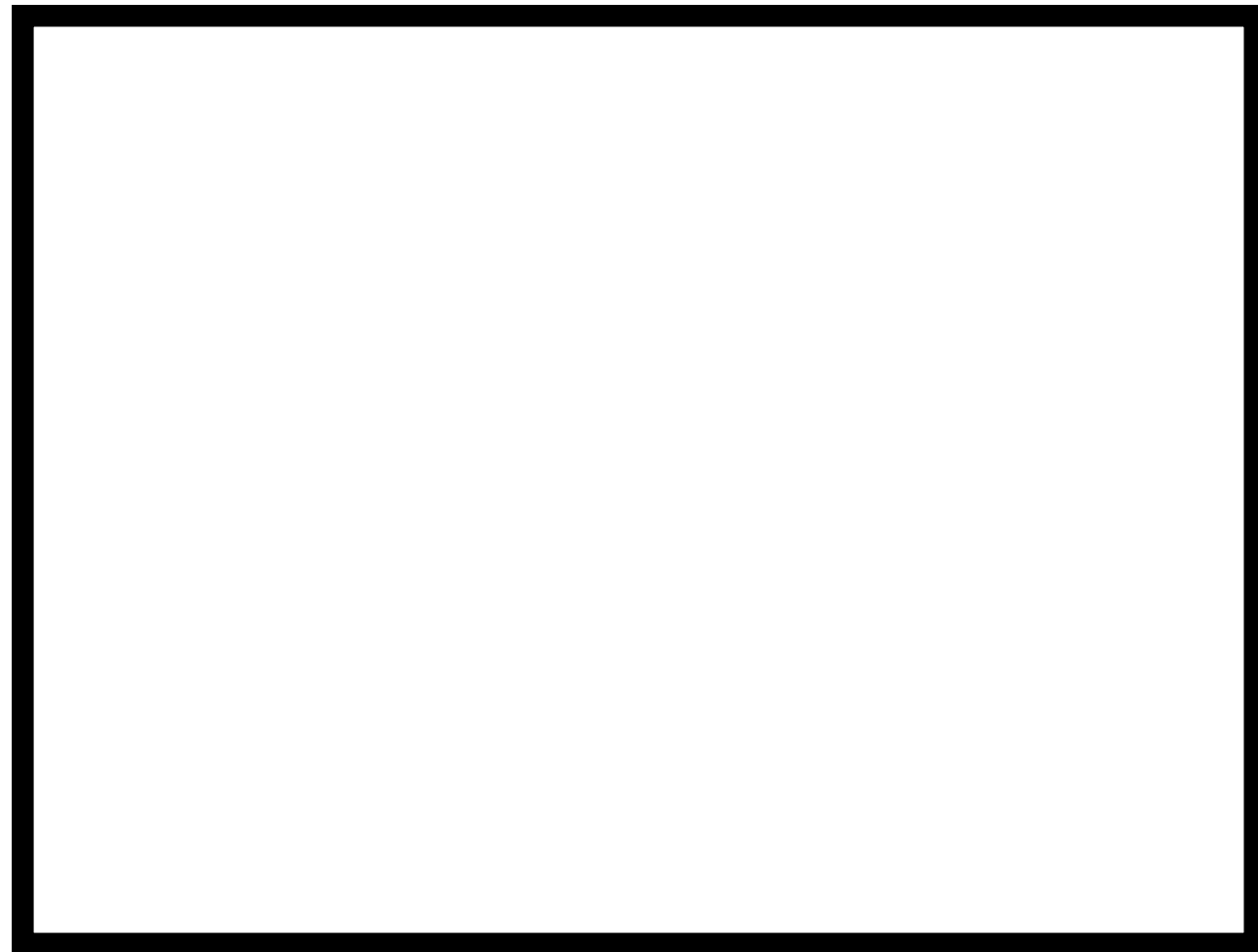
♥ SAFE TODAY, SAFE TOMORROW! ♥

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SCIENTIST JOURNAL

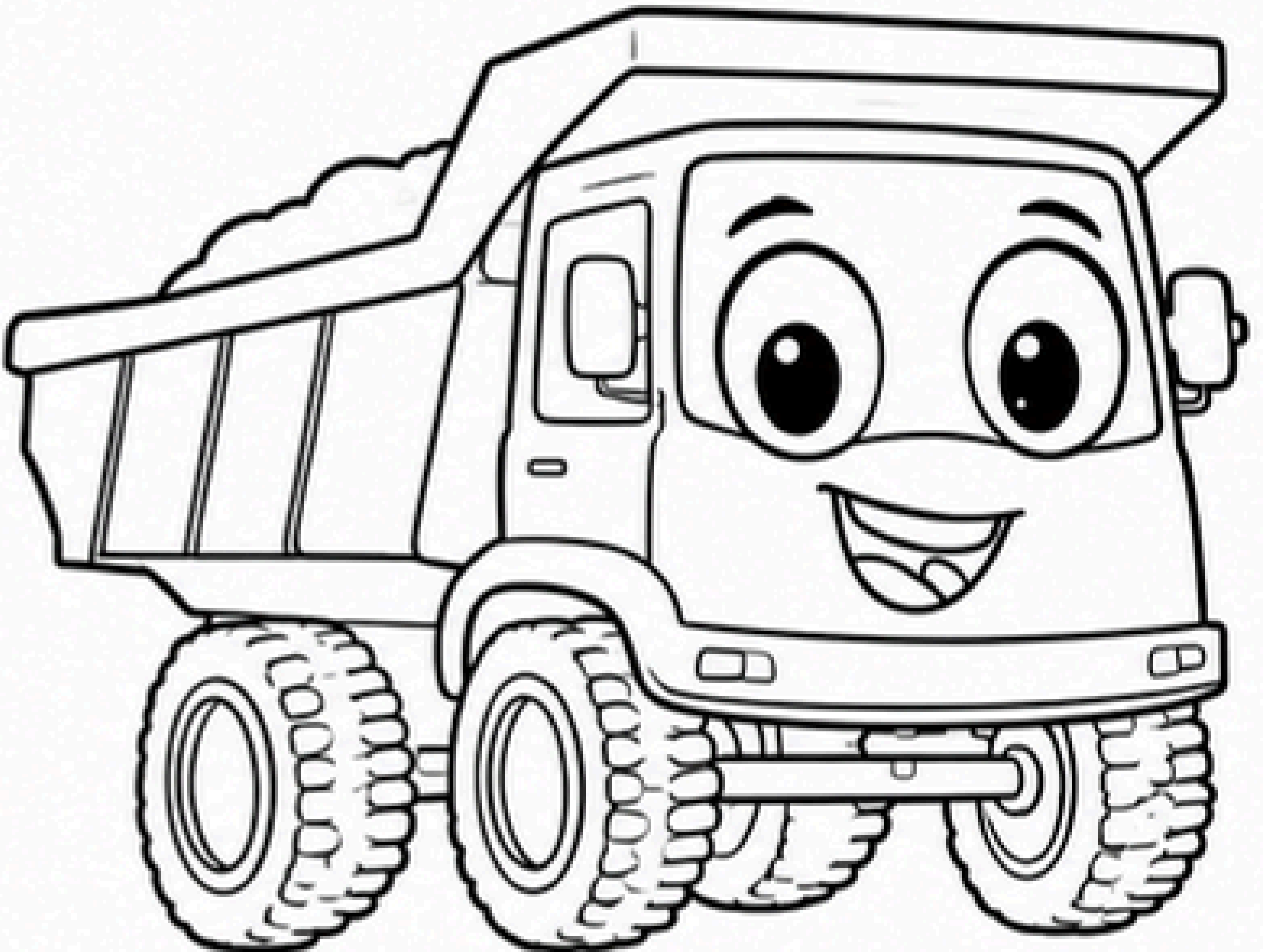
ACT AS AN ENVIRONMENTAL HERO AND ASK PERMISSION TO GO
OUTSIDE AND DRAW FOUR THINGS YOU SEE.



- WORKBOOK -
**SOIL DETECTIVE
TRAINING!**

Dusty

the Dump Truck



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WORD HUNT CHALLENGE

CAN YOU FIND THE FOLLOWING WORDS IN THE GRID BELOW?

T	Y	E	S	P	I	S	E
Y	C	P	O	L	E	A	D
A	L	L	I	Z	Y	F	U
H	E	A	L	T	H	E	S
W	A	Y	B	G	I	T	T
T	N	G	W	R	V	Y	W
A	R	S	E	N	I	C	M
H	F	R	E	S	H	U	B

FRESH
LEAD
ARSENIC

SOIL
CLEAN
DUST

PLAY
HEALTH
SAFETY

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CAN YOU SPELL OUT THESE
SOIL DETECTIVE WORDS?

CLEAN: c l e a n

SOIL: s o i l

FRESH: f r e s h

WATCH OUR WORKSHOP VIDEOS ON YOUTUBE TODAY!



YouTube

SEARCH: CHASTEN GOLD

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SOIL DETECTIVE TRAINING!

THANK YOU FOR JOINING US ON OUR SPECIAL ADVENTURES!
HERE IS YOUR OFFICIAL SOIL DETECTIVE BADGE AND RIBBON!
ASK A GROWN UP TO HELP YOU CUT IT OUT.



CERTIFICATE

SOIL SAFETY HERO



PRESENTED TO

IN RECOGNITION OF

COMPLETING THE SOIL SAFETY HERO TRAINING PROGRAM AND
DEMONSTRATING EXCELLENCE IN LEARNING ABOUT HEALTHY SOIL,
ENVIRONMENTAL SAFETY, COMMUNITY STEWARDSHIP, AND
PROTECTING THE WORLD AROUND US.

EVERY HERO BEGINS BY ASKING QUESTIONS AND CARING FOR OTHERS.
KEEP EXPLORING, KEEP LEARNING, AND KEEP MAKING A DIFFERENCE!

Kenya

SIGNED

DATE





CERTIFICATE

NEIGHBORHOOD CLEANUP CHAMPION

PRESENTED TO

FOR SHOWING OUTSTANDING DEDICATION TO
KEEPING NEIGHBORHOODS CLEAN, SAFE, AND
BEAUTIFUL BY LEARNING ABOUT
ENVIRONMENTAL CLEANUP, PRACTICING
RESPONSIBLE HABITS, AND HELPING CARE FOR
THE COMMUNITY.

YOUR ACTIONS HELP MAKE OUR
NEIGHBORHOODS STRONGER!



Kenya

CERTIFICATE

JUNIOR ENVIRONMENTAL DETECTIVE

PRESENTED TO

IN RECOGNITION OF SUCCESSFULLY COMPLETING THE
NEIGHBORHOOD ENVIRONMENTAL DETECTIVE ACADEMY AND
DEMONSTRATING CURIOSITY, KINDNESS, TEAMWORK,
ENVIRONMENTAL AWARENESS, AND A COMMITMENT TO
PROTECTING OUR NEIGHBORHOODS THROUGH LEARNING,
OBSERVATION, AND RESPONSIBLE STEWARDSHIP.
CONGRATULATIONS ON BECOMING AN OFFICIAL JUNIOR
ENVIRONMENTAL DETECTIVE!

Kenya
SIGNED BY

DATE



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SOIL DETECTIVE TRAINING!



SCAN THE QR CODE
TO WATCH A CAPTAIN FRESH
ADVENTURE!



CAPTAIN FRESH IS HERE TO HELP CHILDREN AND FAMILIES LEARN HOW TO STAY SAFE, HEALTHY, AND INFORMED ABOUT THE WORLD AROUND THEM. THROUGH FUN ADVENTURES, EXCITING DISCOVERIES, AND HANDS-ON LEARNING, CAPTAIN FRESH TEACHES IMPORTANT LESSONS ABOUT ENVIRONMENTAL SAFETY, HEALTHY HABITS, AND PROTECTING OUR COMMUNITIES.

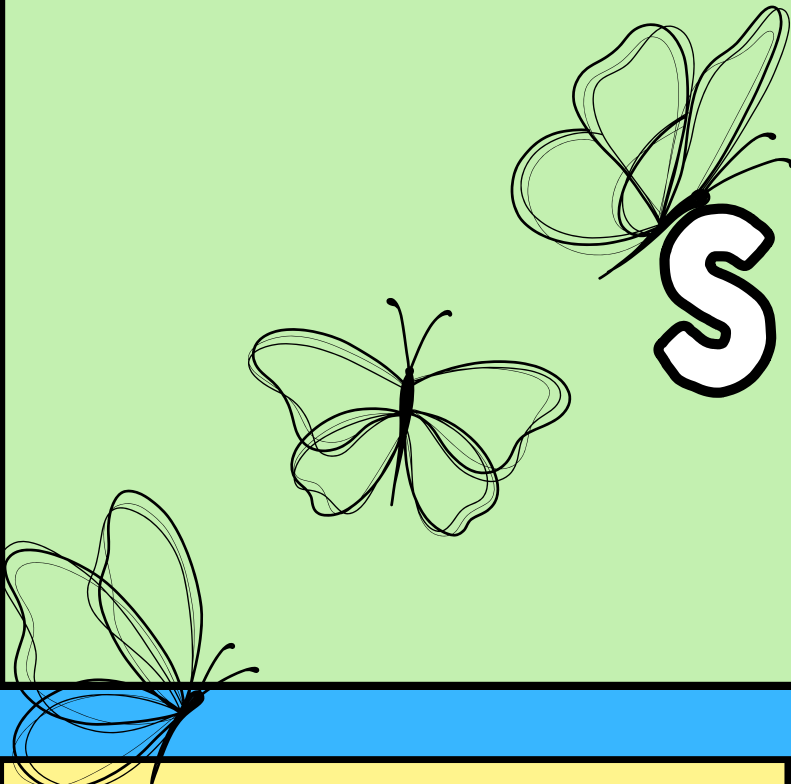
JOIN CAPTAIN FRESH AS HE EXPLORES THE MYSTERIES OF SOIL, WATER, AND THE ENVIRONMENT WHILE HELPING YOUNG DETECTIVES LEARN HOW THEY CAN MAKE A DIFFERENCE RIGHT WHERE THEY LIVE.
WANT TO CONTINUE YOUR SOIL DETECTIVE TRAINING?

SCAN. WATCH. LEARN. BECOME A CERTIFIED SOIL DETECTIVE! 🕵️ 🌱 🧪

– GLOSSARY –

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Air Monitoring	Checking the air for dust or harmful substances.
Arsenic	A naturally occurring substance that can be harmful in high amounts.
Backfill	Clean soil placed where contaminated soil was removed.
Barrier	Something that blocks contamination from reaching people.
Chemical	A substance used to make things or found in nature. Some chemicals can be harmful.
Cleanup	The process of removing contamination from an area.



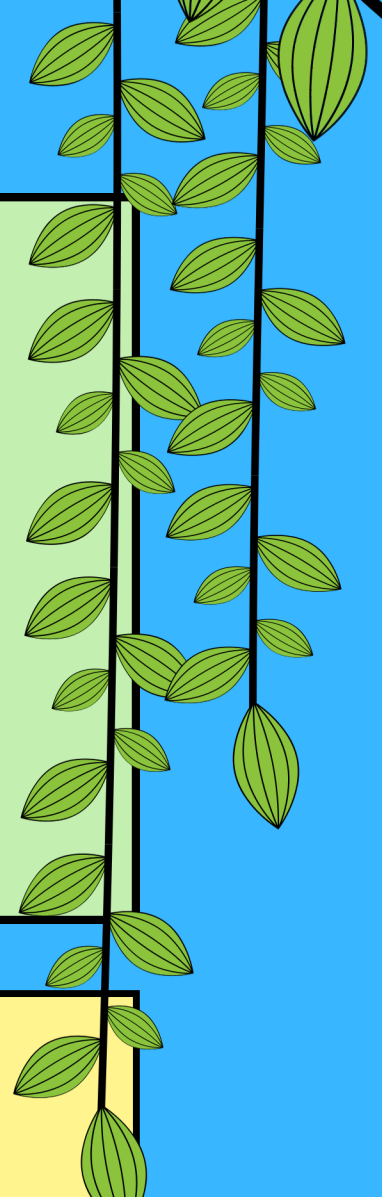
- GLOSSARY -

SOIL DETECTIVE TRAINING!

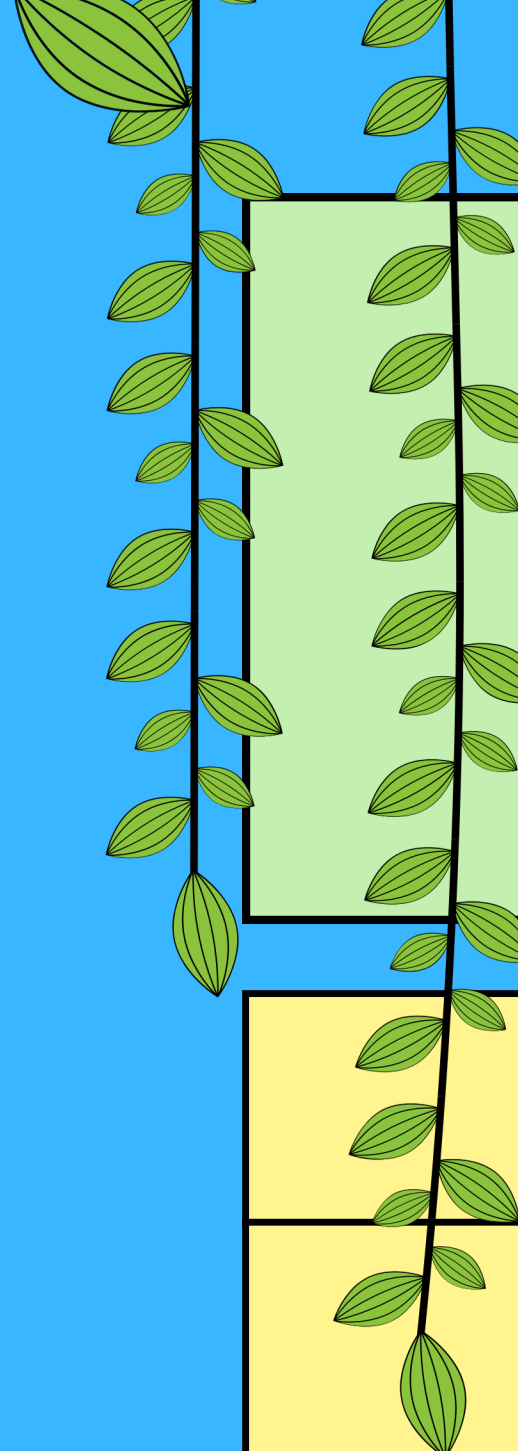
WORD	DEFINTION
Cleanup Crew	Workers who help remove contamination from a site.
Cleanup Plan	A document that explains how contamination will be cleaned up.
Community	People who live, work, or go to school in an area.
Community Engagement	Working together with community members to share information and ideas.
Community Input	Ideas, concerns, and questions shared by local residents.
Community Protection	Actions taken to keep people safe during cleanup work.

- GLOSSARY -

SOIL DETECTIVE TRAINING!



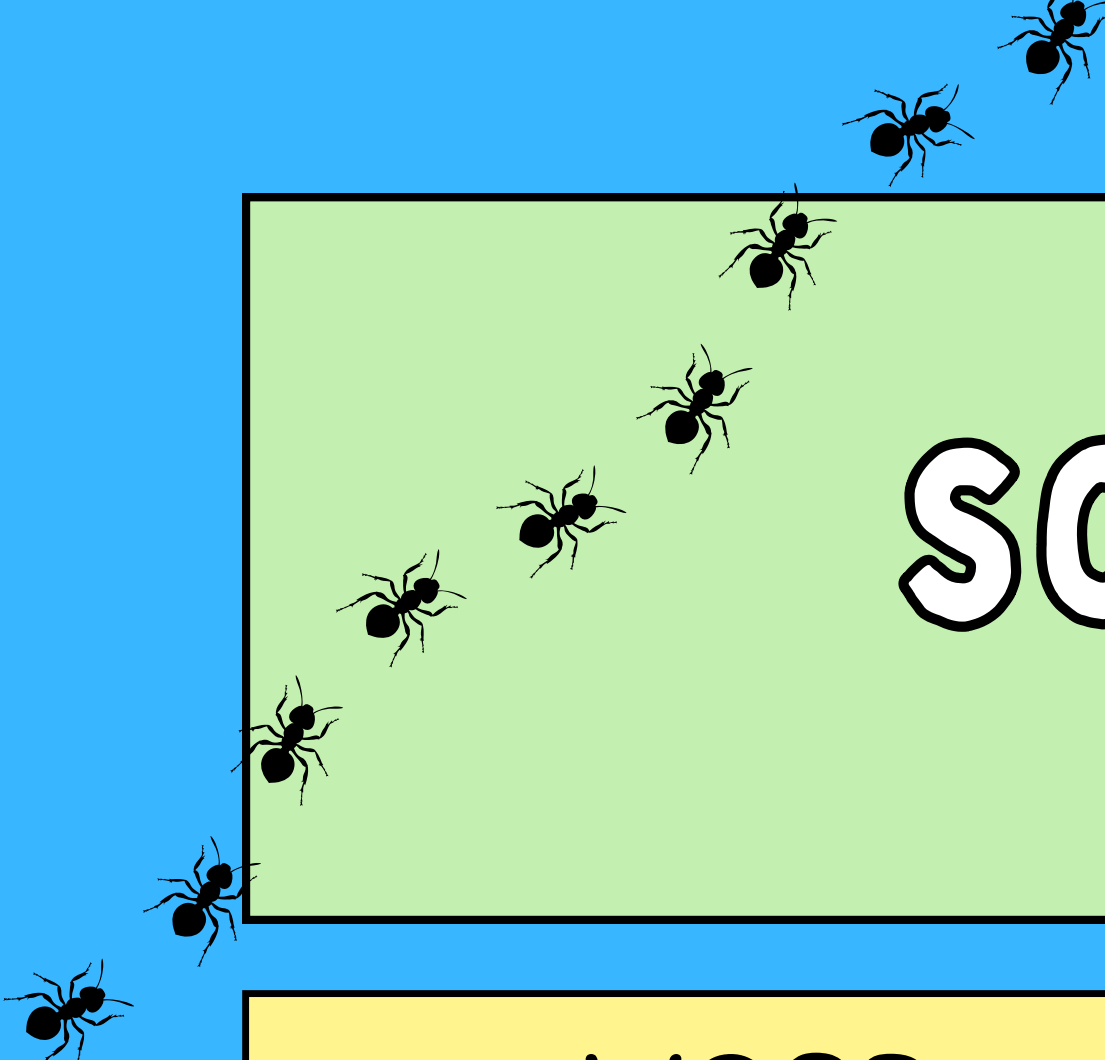
WORD	DEFINTION
Construction Fence	A barrier that keeps people away from work areas.
Containment	Keeping contamination from spreading.
Contamination	Something harmful that gets into soil, water, or air where it should not be.
Drinking Water	Water that is safe for people to drink.
DTSC (Department of Toxic Substances Control)	The California agency that helps protect people from harmful contamination.
Dust	Tiny pieces of dirt or other materials floating in the air.



- GLOSSARY -

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Dust Control	Actions used to stop dust from spreading.
Environmental Cleanup Site	A place where contamination is being investigated or cleaned up.
Environmental Detective	Someone who looks for clues about contamination and safety.
Environmental Health	How the environment affects people's health.
Environmental Justice	Making sure all people have a healthy and safe environment.
Excavation	Digging up soil from the ground.



- GLOSSARY -

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Exposure	When a person comes into contact with something harmful.
Exposure Pathway	The way contamination reaches a person.
Future Use	How a property may be safely used after cleanup is complete.
Hazardous Waste	Dangerous materials that can hurt people or nature if not handled correctly.
Healthy Soil	Soil that helps plants grow and is safe for people and animals.
Heavy Metals	Digging up soil from the ground.

- GLOSSARY -

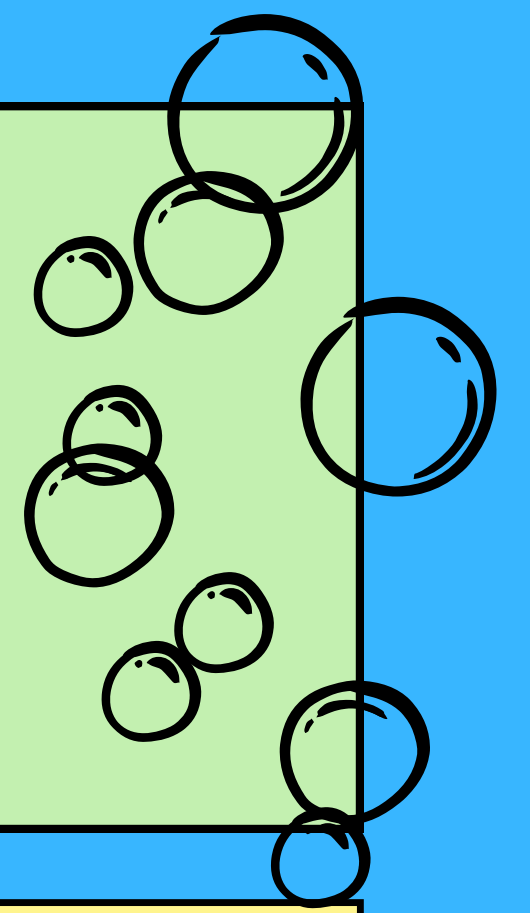
SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Hot Spot	A place where contamination is higher than nearby areas.
Ingestion	Swallowing something through eating or drinking.
Inhalation	Breathing something into your lungs.
Investigation Report	A document that explains what was found during testing.
Laboratory	A place where scientists test samples.
Landfill	A special place where waste is safely disposed of.



- GLOSSARY -

SOIL DETECTIVE TRAINING!



WORD	DEFINTION	
Lead	A metal that can be harmful if it gets into the body.	
Monitoring	A harmful chemical once used in electrical equipment.	
PCB (Polychlorinated Biphenyl)	Breathing something into your lungs.	
Petroleum	Oil-based products such as gasoline and diesel fuel.	
Pesticide	A chemical used to kill bugs, weeds, or other pests.	
Pollutant	A substance that can make the environment dirty or unsafe.	

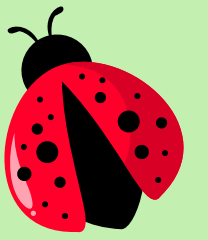
– GLOSSARY –

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Protective Barrier	A cover, fence, or layer that helps keep contamination contained.
Protective Equipment (PPE)	Special gear like gloves or masks that helps protect workers.
Public Meeting	A gathering where people learn about a project and ask questions.
Remediation	A big word for cleaning up contaminated land or water.
Recycling	Turning used materials into something new instead of throwing them away.
Restoration	Returning land to a safer and healthier condition.

– GLOSSARY –

SOIL DETECTIVE TRAINING!



WORD	DEFINTION
Risk	The chance that something harmful could happen.
Safe Distance	Staying far enough away from a work area to stay safe.
Safe Play Area	A place where children can play without Exposure to contamination.
Safety Measure	An action taken to keep people safe.
Sampling	Collecting small amounts of soil, water, or air to test.
Site Investigation	A study to find out if contamination is present.



– GLOSSARY –

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Skin Contact	When a substance touches your skin.
Soil	The dirt on the ground where plants grow.
Soil Detective	YOU!
Soil Removal	Taking contaminated soil away from a site.
Soil Sample	A small scoop of soil taken for testing.
Stakeholder	A person or group who is interested in a project or affected by it.

– GLOSSARY –

SOIL DETECTIVE TRAINING!

WORD	DEFINTION
Stewardship	Taking care of land, water, and nature.
Surface Water	Water on top of the ground, such as rivers, lakes, and streams.
Technical Advisor (TA)	An expert who helps explain scientific information to the community.
Technical Assistance Grant (TAG)	Funding that helps communities learn about environmental cleanup projects.
Toxic	Something that can make people, animals, or plants sick.
Volatile Organic Compounds (VOCs)	Chemicals that can move into the air as gases.