

# ADVENTURES IN COMPOSTING!

ON ANOTHER FINE DAY IN MESA COUNTY,  
WE FIND RECYCLOSAURUS REX'S HOUSE IN  
A BIT OF AN UPROAR...

**AUGGGH!**



*NOTHING* WILL GROW IN OUR YARD!  
THE ONLY THING THAT I'VE FOUND ALIVE  
IS THIS *SINGLE*, STUBBORN, LITTLE  
**WEED!**



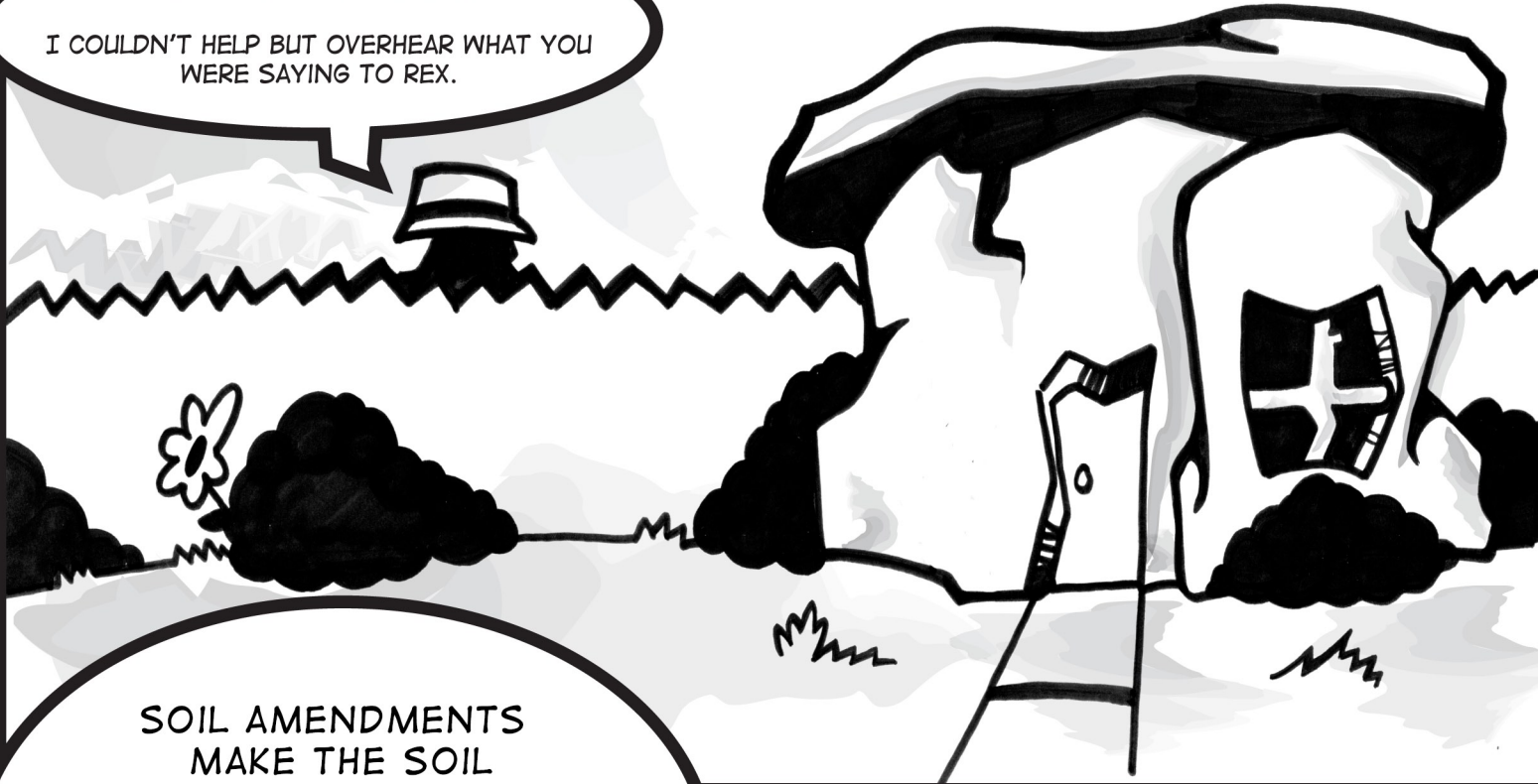


I JUST DON'T GET IT, REX!  
WE USE THE SAME WATER, AND  
WE LIVE ON THE SAME STREET,  
BUT OUR NEIGHBOR'S YARD IS LUSH  
AND GREEN WHILE OURS IS  
BARREN AND DEAD LOOKING!



HEIGHDY-HO NEIGHBOORHOON!!

I COULDN'T HELP BUT OVERHEAR WHAT YOU  
WERE SAYING TO REX.



SOIL AMENDMENTS  
MAKE THE SOIL  
EVEN BETTER FOR  
GROWING THINGS.

I USE COMPOST FROM THE  
MESA COUNTY LANDFILL  
TO HELP MY PLANTS GROW.



I'M GLAD THAT  
YOU ASKED...

SO WHAT'S COMPOST?



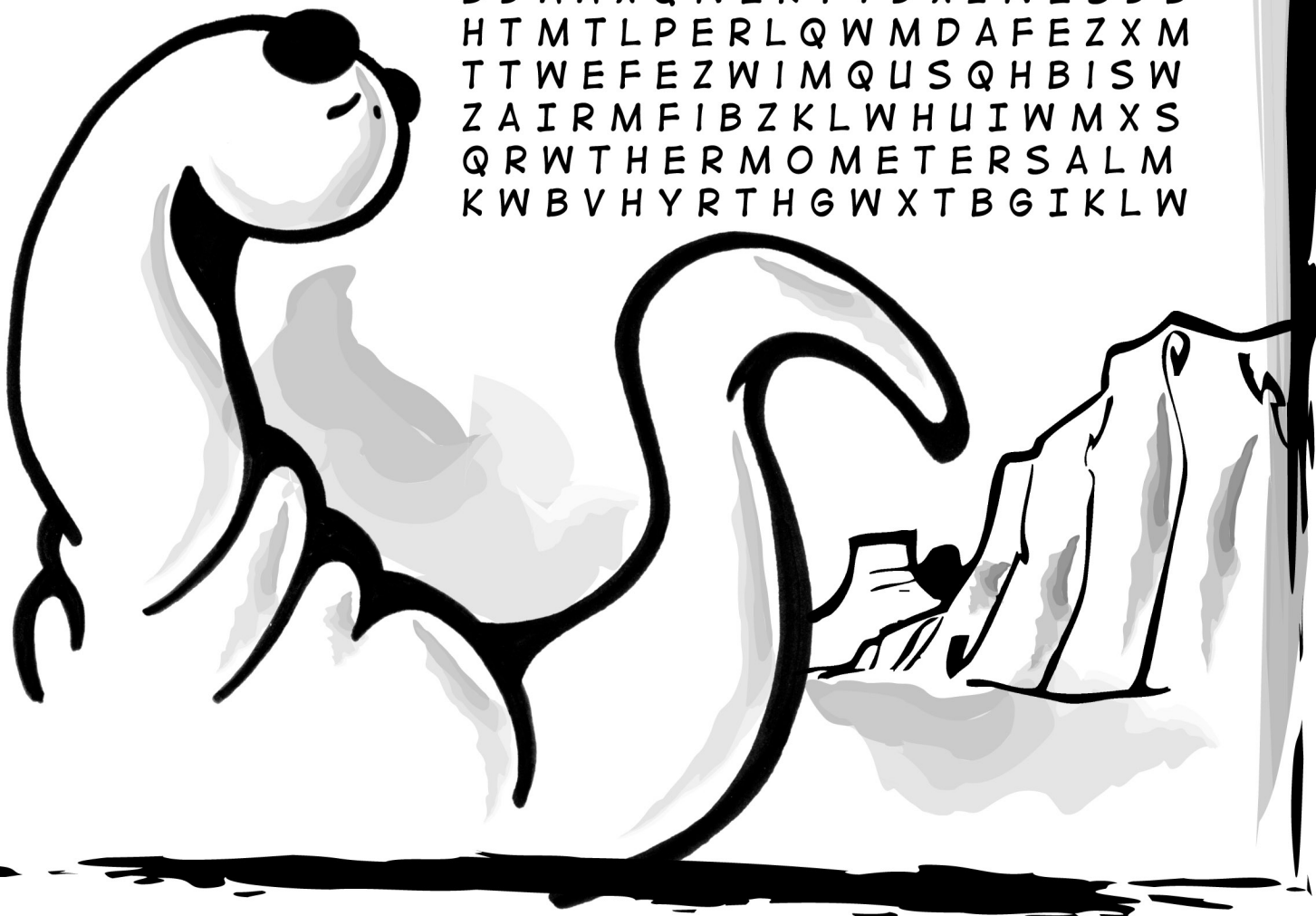
COMPOST IS MADE FROM ORGANIC MATERIALS SUCH AS: LEAVES, TREE LIMBS,  
LAWN CLIPPINGS AND OTHER YARD WASTES.

FIND THE FOLLOWING COMPOSTING VOCABULARY WORDS IN THE WORD SEARCH BELOW.

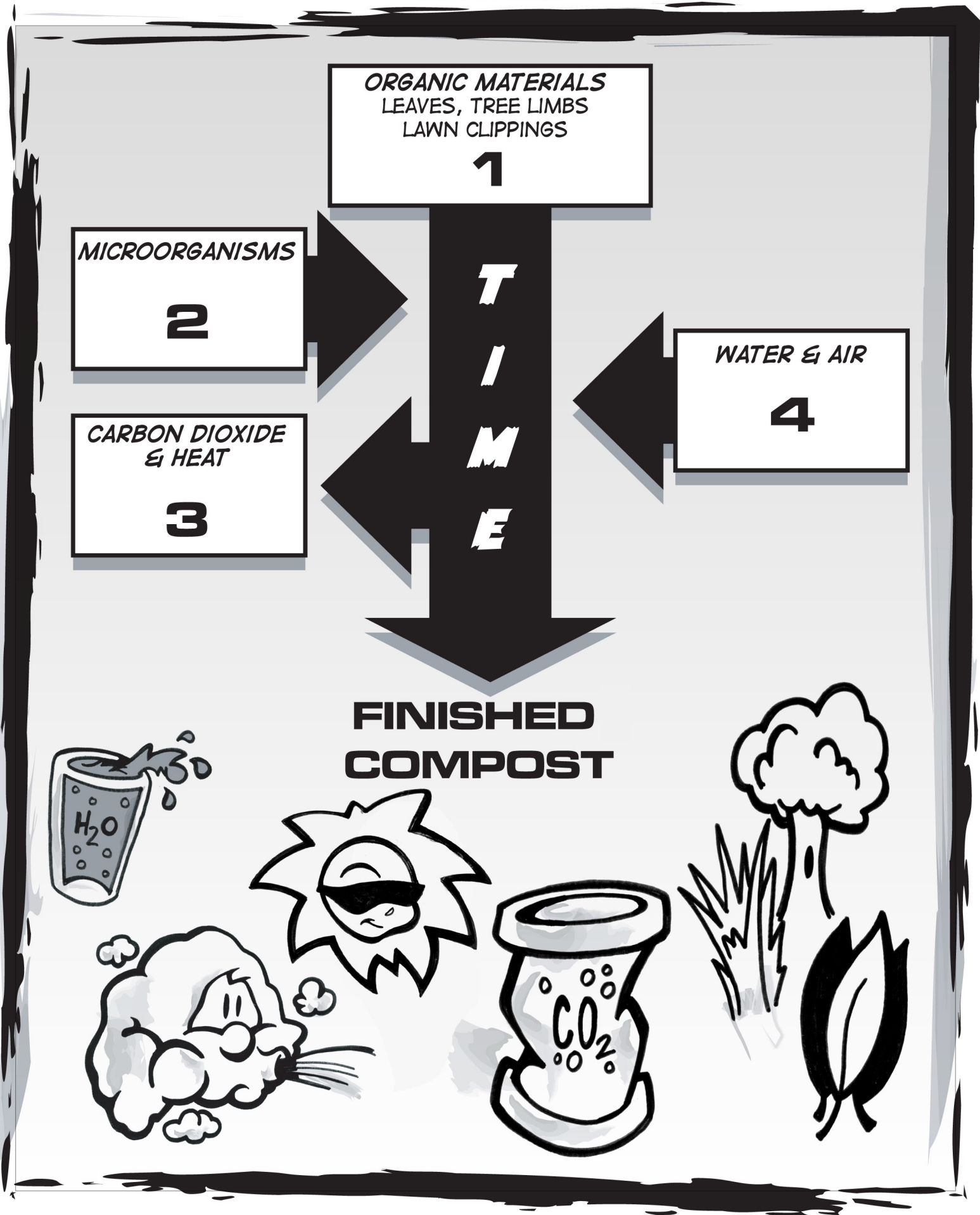
FIND:

1. MICROORGANISM
2. COMPOST
3. WINDROW
4. CARBON DIOXIDE
5. HEAT
6. BOTTLE GARDEN
7. WATER
8. AIR
9. TREE BRANCHES
10. THERMOMETER

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

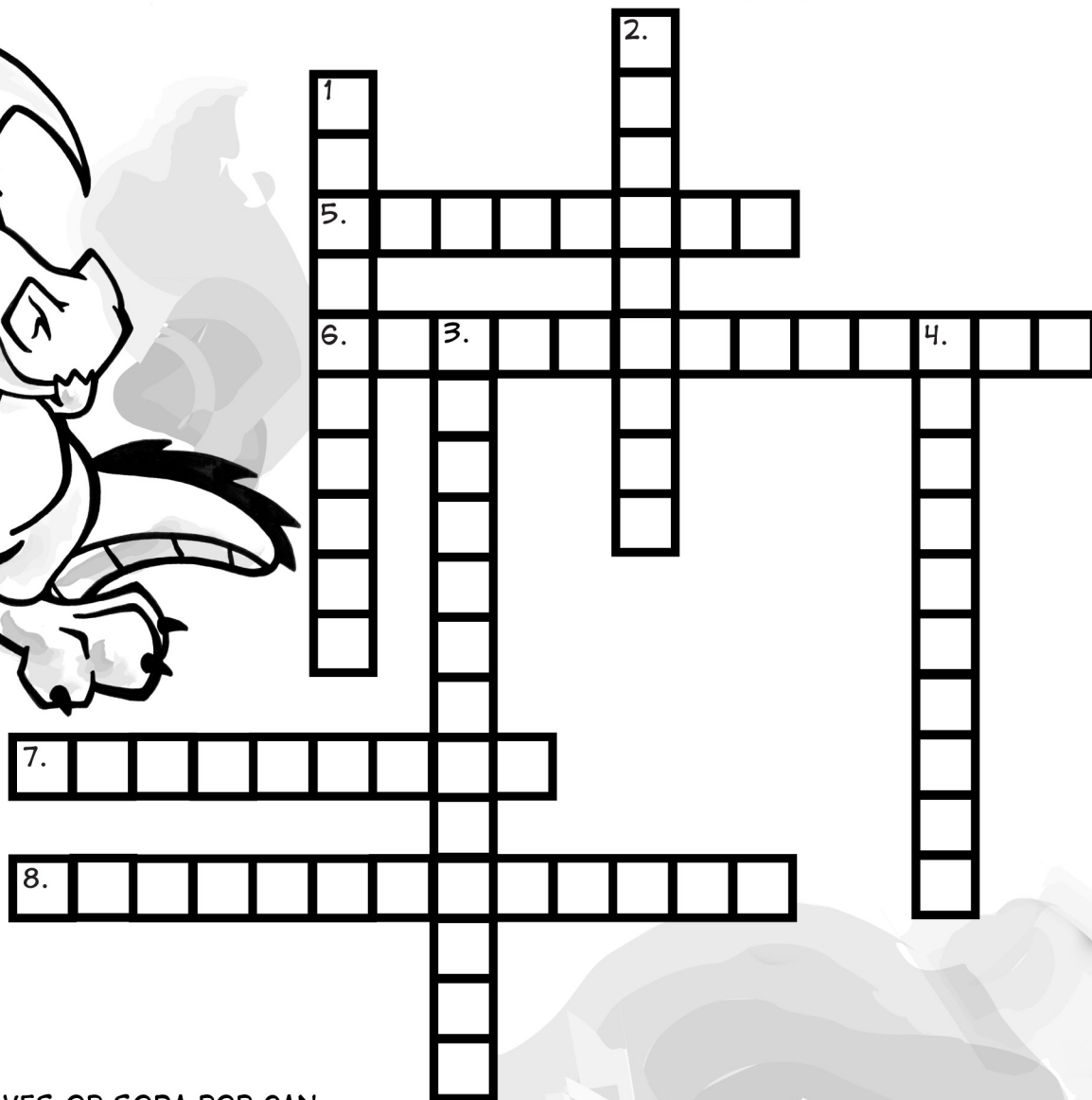


COMPOST IS MADE WITH THE HELP OF VERY TINY LIVING THINGS CALLED MICROORGANISMS.  
MATCH THE WORDS BELOW TO THE PICTURES IN THE COMPOSTING CHART TO COMPLETE  
THE PROCESS.





IT IS IMPORTANT TO REMEMBER THAT ONLY ORGANIC MATERIALS CAN BE COMPOSTED.  
IN THE CROSSWORD BELOW, CHOOSE THE COMPOSTABLE ITEM IN EACH SELECTION TO  
COMPLETE THE PUZZLE.



DOWN

1. TREE LEAVES OR SODA POP CAN
2. DRYER LINT OR CANDLE WAX
3. BASEBALL GLOVE OR WOODY MATERIAL
4. PLASTIC BAG OR NEWSPAPERS

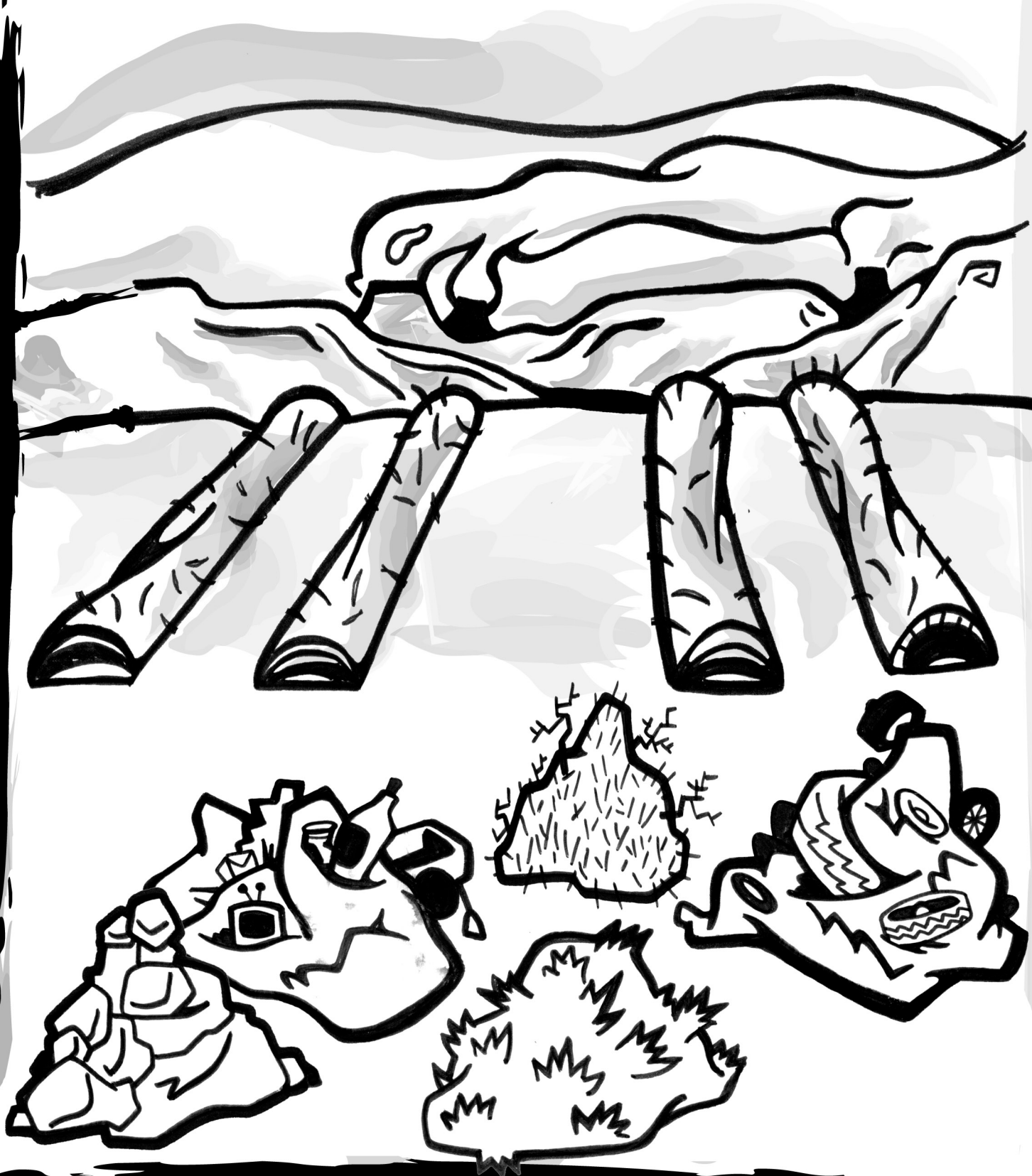
ACROSS

5. EGG SHELL OR NECK TIES
6. BICYCLE HELMET OR LAWN CLIPPINGS
7. YARD WASTE OR VIDEO TAPE
8. MICROWAVE OVEN OR COFFEE GROUNDS



AT MESA COUNTY'S ORGANIC MATERIALS COMPOSTING FACILITY THE ORGANIC MATERIAL IS PLACED INTO LONG ROWS CALLED "WINDROWS" TO COMPOST. BUILD YOUR OWN WINDROW USING THE CORRECT ORGANIC MATERIALS.

BY COMPOSTING ORGANIC MATERIALS WE IMPROVE MESA COUNTY'S AIR QUALITY, MAKE A VALUABLE SOIL AMENDMENT, AND EXTEND THE LANDFILL'S LIFE.



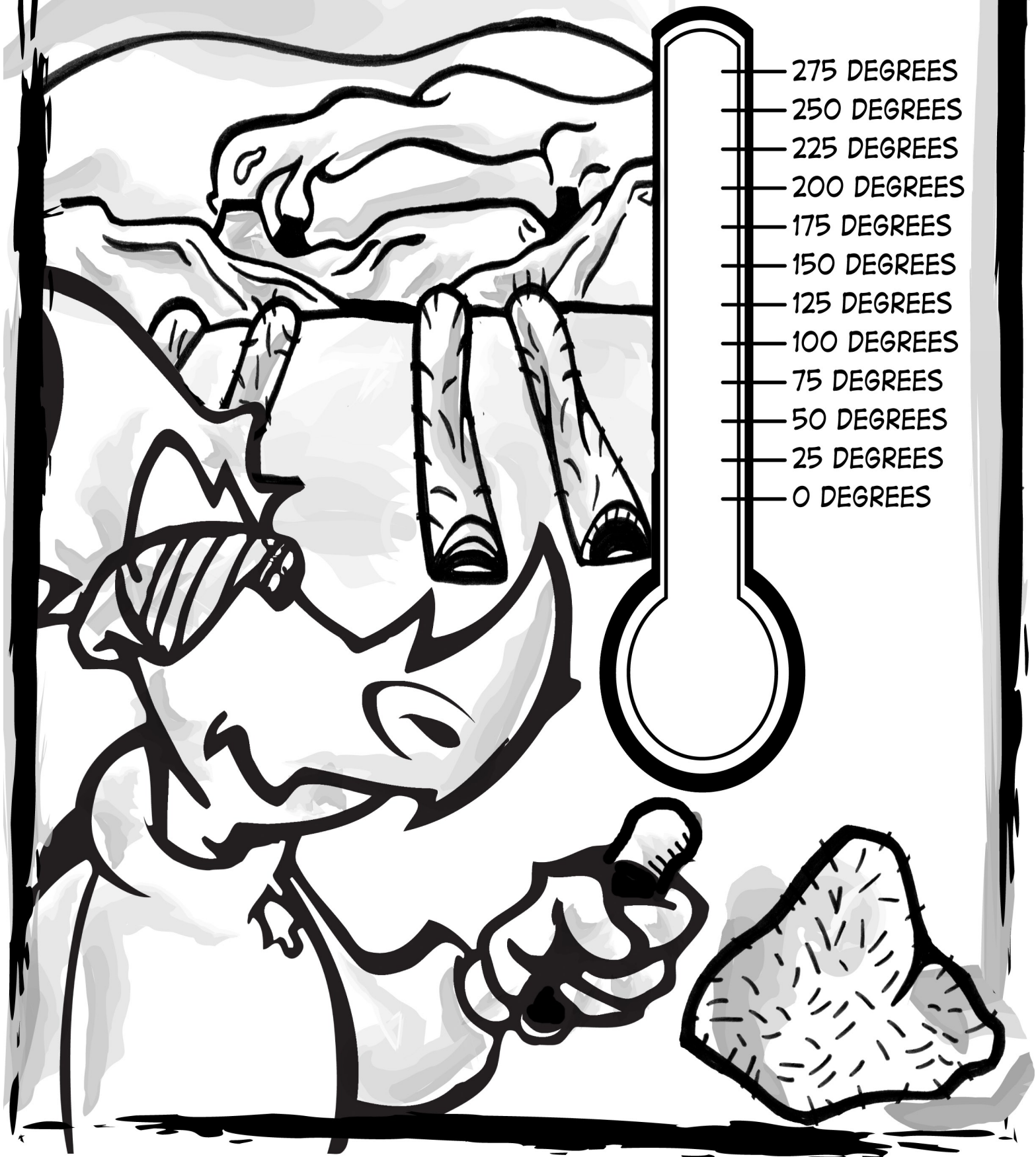


INSIDE THE WINDROW IS A WHOLE WORLD OF MICROORGANISMS THAT LOVE TO EAT ORGANIC MATERIALS, AND LIKE US NEED PLENTY OF CLEAN AIR AND WATER TO SURVIVE. FEED THE MICROORGANISMS BY CIRCLING ALL OF THE ITEMS THAT THEY NEED!



AS THE MICROORGANISMS EAT EVERYTHING IN SIGHT, THEY CREATE HEAT!  
THE TEMPERATURE INSIDE THE WINDROW RISES TO BETWEEN 130 AND 150 DEGREES,  
SO THE BIG DINOS TURN AND WATER THE WINDROWS DAILY.

ON THE THERMOMETER MARK THE TEMPERATURE OF THE WINDROW.





AFTER A FEW MONTHS, AND WITH LOTS OF WATERING AND CARE THE COMPOST IS FINISHED!  
THE DINOS AT THE COMPOSTING FACILITY SELL THE FINISHED COMPOST TO MESA COUNTY  
RESIDENTS FOR A SMALL FEE.



WE DID IT REX!

THANKS TO COMPOST,  
OUR YARD IS GROWING  
AND SUPER HEALTHY!

WHAT A GREAT DAY!





# SCIENCE FUN WITH DR. AL LOSAUROSTEIN



## ***BOTTLE GARDENING WITH COMPOST***

WHAT IS THE PROJECT FOR?

TO SEE HOW MUCH PLANTS REALLY LIKE COMPOST IN THEIR SOIL.

## ***LETS GET READY FOR THE PROJECT!!!***

USE THE BOTTOM OF THE NEXT PAGE TO WRITE DOWN WHAT YOU SEE OVER THE NEXT FEW WEEKS. WRITE DOWN STUFF LIKE, WHERE DID YOU GET YOUR SOIL AND COMPOST, WHAT TYPE OF SEED DID YOU PLANT, OR HOW MUCH WATER DID YOU ADD EACH WEEK. ALSO LOOK AT WHAT HAPPENS TO THE SOIL AND NOT JUST THE PLANTS.

YOU WILL NEED.....

1. TWO 2-LITER CLEAR PLASTIC POP BOTTLES.
2. 5-10 FRESH BEANS FROM A SEED PACK OR FROM THE GROCERY STORE.
3. SOIL FROM AROUND YOUR SCHOOL, HOME, GARDEN, OR A PATHWAY.
4. COMPOST. IF YOU DON'T HAVE COMPOST FOR THIS EXPERIMENT CONTACT MESA COUNTY SOLID WASTE MANAGEMENT AT (970) 255-0754 AND WE CAN SEND YOU A SMALL PACKAGE.
5. WATER.

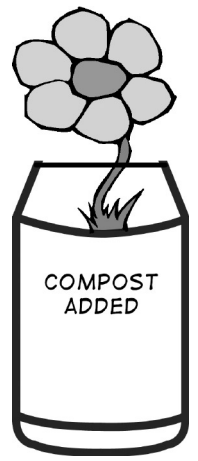
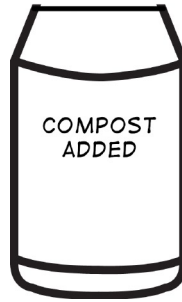
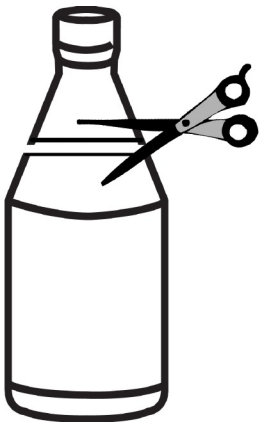
ITS IMPORTANT TO REMEMBER TO ALWAYS TELL YOUR PARENTS OR TEACHER THAT YOU ARE DOING AN EXPERIMENT BEFORE YOU BEGIN. THAT WAY THEY CAN HELP YOU IF YOU DON'T UNDERSTAND SOMETHING.

## ***NOW LETS MAKE A BOTTLE GARDEN!***

1. SOAK THE BEANS IN WATER FOR SEVERAL HOURS OR OVER NIGHT.
2. HAVE YOUR PARENTS OR AN ADULT CUT THE PLASTIC BOTTLES IN HALF.
3. YOU CAN RECYCLE THE TOP PORTION.
4. FILL ONE BOTTLE HALFWAY UP WITH THE SOIL YOU DUG-UP.
5. LABEL THIS BOTTLE "JUST SOIL" AND DATE IT.
6. FILL THE OTHER BOTTLE WITH HALF AND HALF OF THE SAME SOIL AND MATURE COMPOST.
7. LABEL THIS BOTTLE "COMPOST ADDED" AND DATE IT.
8. PLANT A FEW BEANS IN EACH BOTTLE.
9. PLACE THE BOTTLES WHERE THEY WILL RECEIVE THE SAME SUNLIGHT.
10. KEEP THE BOTTLES WATERED. NOT TOO MUCH JUST ENOUGH TO KEEP THEM MOIST.

***YOU JUST CREATED A BOTTLE GARDEN!!!!***

LET THE SCIENCE BEGIN...



## ***DR. AL LASAUROSTEIN COMPOST QUESTIONS.***

1. WHAT DID THE SOIL IN EACH BOTTLE LOOK LIKE BEFORE YOU PLANTED THE BEANS?
2. HOW LONG DID IT TAKE FOR THE PLANTS TO GROW?
3. WHICH BEANS GREW FASTER? WHY?
4. LIST REASONS WHY GROWING PLANTS FASTER AND STRONGER IS IMPORTANT FOR LOCAL FARMERS.

## ***EXPERIMENT LOG:***

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