

## Healthy Life In The

## = Healthy Life From The Soil

## Healthy Soil =

Many of the things we take for granted in our daily lives depend upon soil. For example;

some components of both cell phones and computers are manufactured using materials mined from soil, our homes are built with materials that grow in soil, the air we breathe is produced by plants that grow in soil, and most of the food we eat grows in or on soil.

For all of these reasons and many more it is important that our soil is healthy.

**HEALTHY** soil needs air, water, minerals, organic matter, and living elements such as insects, worms and microbes.

**Healthy Soil Word Search** Find the words listed below on this placemat AND in this puzzle and circle them in **BOTH** places. Words in the puzzle can run up, down, forwards, backwards or diagonally.

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

AIR	CROPS	GROW	MULCH	SOIL
ANIMALS	EARTHWORM	HEALTHY	ORGANIC	TREES
COMPOST	EROSION	HOME	PLANTS	VEGETATION
CONSERVE	FOOD	LIFE	RECYCLE	WATER

There are **MILLIONS** of living organisms in every **GRAM** of soil! (One gram of soil is about the size of a navy bean.) These organisms do many things that make our life better such as:

- **increase soil fertility** - providing us with nutrient rich food.
- **produce some of the medications we use** - like antibiotics.
- **recycle carbon used by plants during photosynthesis** - giving us air to breathe.
- **filter water as it passes through** - helping purify our drinking water.

## Healthy Lives Depend on Healthy Soil!



**FUNGI**

navy bean

**EARTHWORMS**

Draw or write on the plate what you ate during your most recent meal.

## A Healthy Meal

List two of the items from your plate on the lines below and relate each item to soil.  
For example, if one of the items you ate contained cheese:

**Item**

**How Item Is Related To Soil**

1. Cheese Cheese is made from milk which comes from cows, who eat grasses that grow in soil.
- 2.
- 3.



National Association of Conservation Districts

**Soil Science**  
Society of America

Visit [www.nacdn.net/general-resources/stewardship-and-education-materials/2019-life-in-the-soil-dig-deeper](http://www.nacdn.net/general-resources/stewardship-and-education-materials/2019-life-in-the-soil-dig-deeper) and [www.soils4teachers.org](http://www.soils4teachers.org) for additional education materials.

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## Plant It!

Prevent soil erosion by planting trees, grass, flowers, herbs and edible vegetation. The fertile layer of topsoil is actually a thin layer. Planting vegetation helps prevent both wind and water erosion.



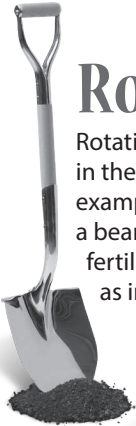
## Worm It!

Organisms living in soil break down organic material, such as leaves, that plants need for growth and help aerate the soil. Avoid excessive use of fertilizers and pesticides as they can destroy beneficial organisms like earthworms.



## Rotate It!

Rotating the crops grown in the same field, for example a grain versus a bean, will increase the fertility of the soil as well as increase yields.



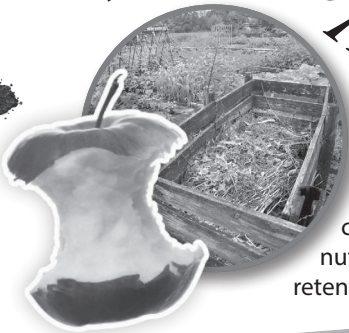
## Mulch It!

A 2-4 inch layer of mulch can help conserve moisture, control weeds, and even help cool the soil in extreme temperatures.



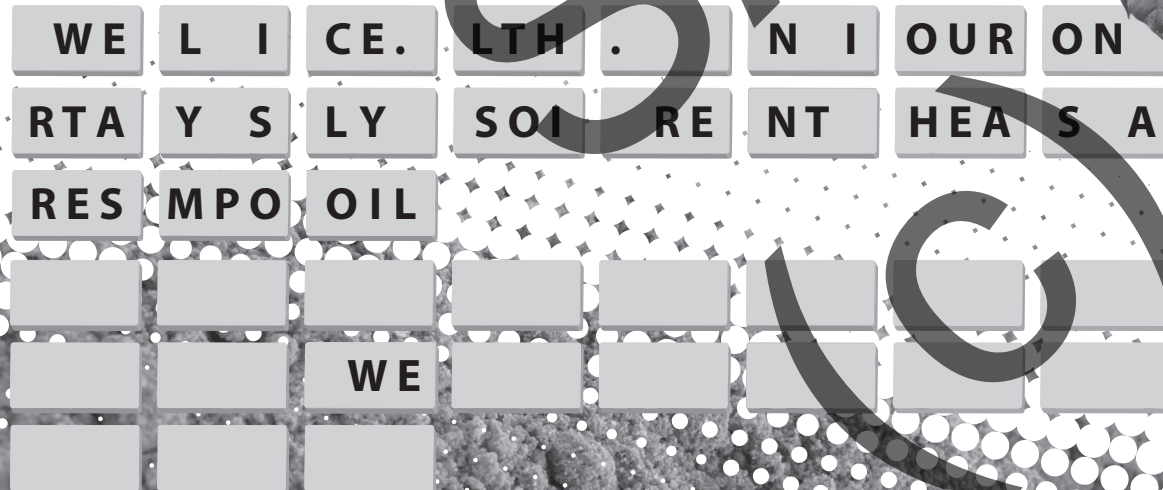
## Compost It!

Composting is a great way to recycle paper, leaves, lawn clippings and vegetable scraps. Compost enriches soil with nutrients, improves soil texture and encourages better water retention by soil. Composting is easy and doesn't take much space.

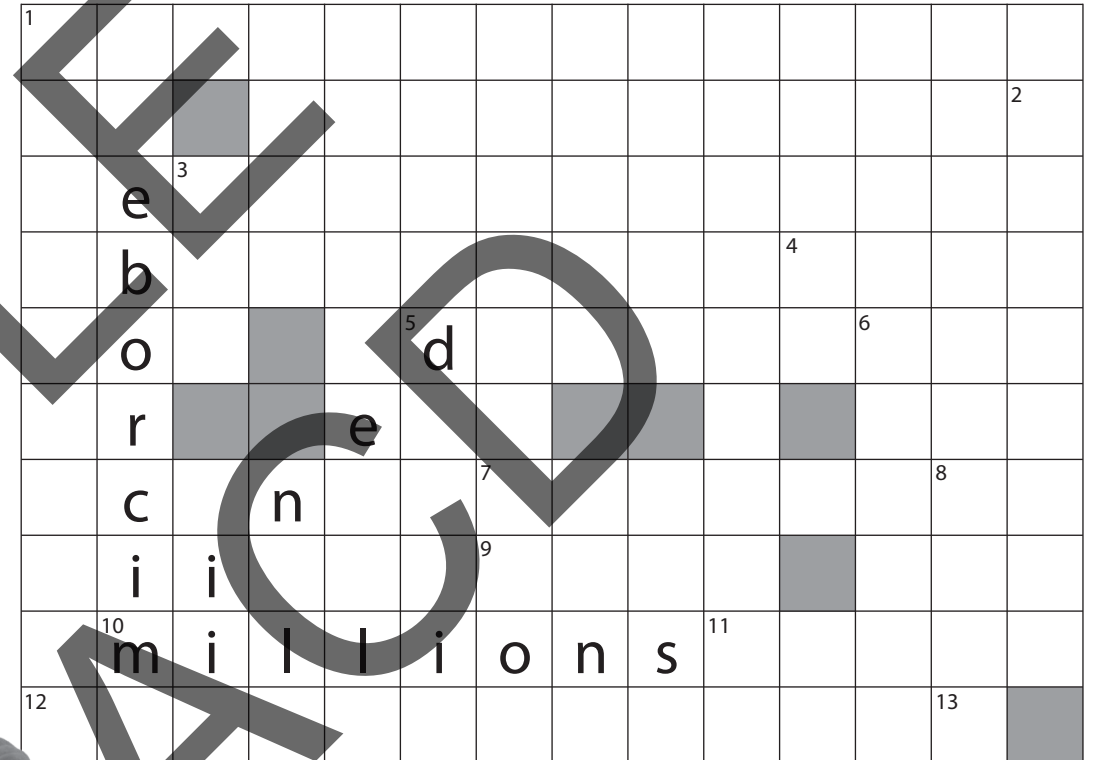


## Unscramble The Tiles

and put them in their proper order to discover an important message about soil.



Read **Healthy Life in the Soil = Healthy Life from the Soil** on the other side and then fill in the blanks to complete each word. Use the words to fill in the puzzle. The word(s) in each numbered group start or end on the same number in the puzzle. Words can read in all directions: forward, backward, up, down or diagonally. Words may overlap so that some letters can be used more than once. Number 10 has been done for you as an example.



1. \_\_\_otos \_\_\_nthesis  
pla \_\_\_s  
p \_\_\_ify

2. m \_\_\_d \_\_\_c \_\_\_tions  
or \_\_\_a \_\_\_ism  
min \_\_\_ral

3. a \_\_\_t \_\_\_bi \_\_\_t \_\_\_  
a \_\_\_r

4. nu \_\_\_rien \_\_\_

5. d \_\_\_ly

6. so \_\_\_l

7. \_\_\_ho \_\_\_e

8. li \_\_\_e

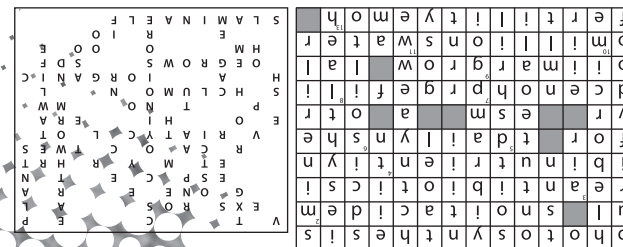
9. gra \_\_\_  
gr \_\_\_w

10. millions  
mined  
microbe

11. w \_\_\_er  
w \_\_\_rm

12. fer \_\_\_ili \_\_\_y  
\_\_\_o \_\_\_d

13. he \_\_\_ \_\_\_hy  
ho \_\_\_e



Tile Scramble:  
SOIL IS AN IMPORTANT  
RESOURCE. WE RELY ON  
HEALTHY SOIL.

