Vame	#	Date
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3rd Grade: Packets #17-21

## Things to do EACH DAY:

- Read (or be read to) from a book or magazine of your choice for 20 minutes.
- Work on the "All About Worms STEAM Unit" (this is a week-long project
  that should be divided up throughout the week. <u>Please complete the best</u>
  you can with the materials you have on hand \*see special note in directions)
- Complete Reading Language Arts WS.
- Complete Math WS
- Do from the PE and Music activities
- You may try to send me pictures of work and/or short video or audio response to work via Remind or LiveGrades as completed, if wish to try...

Make sure to complete and return your packets as directed. If you have questions about the packet, you may contact me via the Remind app, LiveGrades, or phone the school 304-227-4114 during the hours of 10:00am-2:00pm M-F.

Mrs. Kelly Teter

Day #17- Reading WS161, Math WS 15.1 Day#20ReadingWS165, Math WS15.4 Day#18- Reading WS162, Math WS15.2 Day#21ReadingWS167, Math WS16.1 Day#19- Reading WSNewsela&Questions, Math WS15.3

# All About Worms STEAM Unit-Distance Learning Week of April 20-24, 2020 for 2<sup>nd</sup> and 3<sup>rd</sup> Grades

## \*\*\*\*\* A SPECIAL NOTE\*\*\*

## Families

Though I'd like you to try to complete as much of this learning project as you can. I am also aware that our households are limited with the materials/resources or initernet capability that you have on hand. Do not make special trips or purchases. Any exploration of the topic you do as a family will be a wonderful learning opportunity for your child. Have fun together learning about worms!

This is a week (or more) long learning unit about worms. It will involve outdoor exploration, hands on activities and observations, technology exploration of a video read-aloud of the non-fiction story <u>Wiggling Worms at Work</u>, reading and listening comprehension, and the completion and illustration of a "worm book".

-You will need to construct your own Worm Jar, using the given instructions as a suggested guide. You will need a clear plastic or glass jar/container (canning jar, empty peanut butter, mayonaise or jelly jars, etc), dirt (outside dirt or potting soil), sand (or gritty small gravel, used wet coffee grounds, crushed eggshells, etc), oatmeal (dry instant oatmeal or similar), and a few live earthworms (you can hunt for them in your yard with family helpers or use the ones sold as fishing bait!) ... you'll also need a bit of water...

Put oatmeal in bottom of jar, layer the "dirt", then "sand", and repeat to make it look like a layer cake. Add worms on top. Make sure the soil is moist but not too wet.

- -Make your first observation of your worm jar and draw a picture.
- -Cover the outside of the jar with the provided black construction paper. You might need tape, glue or staples to keep the paper in a ring that can slide off when you want to look at your worms. (See the pictures in the guide.) Keep your worm jar in a protected area and keep them from getting too cold.
- -Complete "How to Make a Worm Jar" Writing activity and illustrations. This can be worked on throughout the week. NOT at one sitting unless you want to.
- -Using the attached transcript, you may wish to view a video read aloud of the nonfiction story <u>Wiggling Worms at Work</u> by Wendy Pfeffer. If you do not have internet access to the videos, use the attached transcript of the story to read with a helper. This story is also available in a variety of formats from paperback, Kindle/e-readers, and even free audio downloads. Listen/view/read this story to help you learn about worms.
- -After 2-5 days, make a second observation of your worm jar and draw and write what you see. Any surprises? You are to *keep your worm jar at home, and can continue to raise your worms for as long as your family wishes*. Remember: You must feed your worms and keep the soil at the correct moisture. Also, as the bits of food decompose, it may give off a not so nice smell!
- -Complete the Worm Book. Draw, color, and label pictures neatly and write in your best handwriting.

If you have any questions about the learning project, please message message message

## Attached is the transcript of the first linked video read aloud of the story <u>Wiggly Worms at Work</u> by Wendy Pfeffer.

Hi I'm Mrs. McDonald and I'm here to read another story to you. I'm going to be reading wiggly worms at work but first this is kind of part 2 of my how to make a worm jar. This is after one week what happened with my worm jar. So I'm going to take off the cover and show you. I can tell that there are little tunnels around here. I don't know how well you can see it but I don't see my worms. My worms must be hiding so we're just gonna have to wait until next week and see if they mix it up the rest of the way because I still see coffee grounds up here and I still see dirt here. A little mold grew and stuff. Eggshells are still up there so our worms haven't done all their job but it's supposed to take at least two weeks to finish it up. So I'm just gonna cover it back up and I'll put it in the house where it's warm because today it's cold. I live in Ohio. The weather changes like throughout the day if we can have hot and cold all in one day. Anyhow let's read Wiggling Worms at Work.

We don't lean worms at work. Look at that worm down in this little tunnel or burrow. <u>Wiggling Worms</u> at Work. Oh by Wendy Pfeffer illustrated by Steve Jenkins.

Down in the garden under your feet thousands of worms wiggle around flower bulbs and tunnel under trees. They twist and turn eating almost anything in their way. These wiggling worms are at work. Farmers plow their fields to loosen the soil. Crumbly soil lets the roots of plants spread out and grow. Worms also loosen the soil as they wiggle along. They are called nature's plows. As worms twist and turn they push aside loose soil. This creates tunnels. Air flows along these tunnels. Rainwater trickles down. Roots drink it up. Moist ground helps plants grow better. So these are good workers.

Worms tunnel in hard-packed soil by swallowing it. The soil goes in the worms mouth, slides into the crop, then passes down to the gizzard. Worms do not have teeth. Muscles, fine grains of sand, and small stones in the gizzard grind the soil. Worms digest leaf and plant bits that are found in the soil, just as you digest a salad. What's left passes through the worms body and comes out its tail end in the form of pellets called worm castings. These castings make good plant food. They help fruits and vegetables grow bigger and better.

Sometimes worms crawl above the ground. When they tunnel back down into the ground, they pull dead leaves and plants down with them. These plants make the soil better as they rot. Seeds come down, too. Some of these seeds send out roots. Seedlings sprout. Worms help new plants begin to grow. There's a little seedling.

Worms can wiggle twist turn and even tie themselves in knots because they have no backbones. Their soft bodies are made up of rings or segments. These segments act like the coils of a slinky toy. They let a worm bend. A worm has no legs but eight bristles under each segment act like a little like legs. They help the worm move. Strong muscles allow the worm to stretch out its front end. It becomes long and thin. Then the worm fastens its front bristles into the soil. The back end links up making the worm short and fat. Can you see that I've learned a lot about worms lately? The worms wiggle along stretching and slinking, stretching and slinking, with all its wiggling twisting and turning.

It's a wonder a worm knows where it's headed. It has no eyes, no nose, no ears, and hardly any brain at all, but a worm knows what's happening nearby. It feels vibrations on the ground and senses a hungry Robin. Quickly the worm slips back into its burrow. Hiding is the only way it can protect itself from

enemies. Worms also hide from the Sun. They must live in damp soil since they breathe air through their moist skin. In the hot Sun their skins dry up and they can't breathe. Worms eat at the entrance of their burrows. Then each worm covers any leftover plants with its castings. This pile of worm castings is called a midden. It hides the top of the worms burrow and acts like a door to keep out bad weather and rain. I've seen that before. Have you ever been walking along and seen a little like little tiny hills of dirt along the along the way? I've seen that. I didn't know that that's what it was classified. I didn't know that's what it was for.

In spring, before the weather warms, worms wiggle to the surface to mate worms are different from most other animals. Each worm is both male and female but each one still needs a mate. After mating each worm crawls back into its world. When the weather cools a ring-like cocoon forms near the head of each worm that has made it slowly the worm begins to move backward. The cocoon inches forward on the worms body just as a ring on your finger would move. The cocoon passes over openings in the worms body. Up to 30 eggs slip out of the openings and into the cocoon. In a few minutes the cocoon slips off the worms head just as the ring would slip off your finger. The ends of the cocoon close, inside the cocoon the eggs are fertilized. In about three weeks the eggs hatch.

Out of about thirty eggs only three or four wormlets emerge from each cocoon. They look like tiny pieces of cotton thread less than an inch long but they are fully developed worms and live completely on their own. They do not need their parents help. The wormlets inch along finding bits of dead plants too, ate dragging them into their tunnels, and covering any leftovers with their castings. They wiggle underground, loosen the soil and make tunnels. Even tiny wormlets help the soil. Oh here I hope you can see these pictures as I'm going along. These babies grow fast. In six weeks they are adult worms.

In winter, the soil near the surface freezes. The worms plug up their tunnels and move down to warmer soil. They stay there until spring, then they wiggle up tunneling, twisting, and turning until they are there, right under your feet again. Vegetables and flowers grow better, trees grow bigger, grass grows greener because there are thousands of wiggling worms at work.

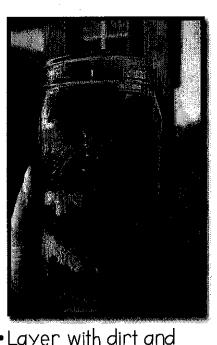
Then, this says find out more about rooms, so I'm not going to read this whole thing, but it tells you some different things that you can do to find out about worms. So if you want to read all that you're going to have to go to the library or maybe online you could order this book <u>Wiggling Worms at Work</u> but I enjoyed it and I learned a little bit more about worms. I've been learning a lot about them and in another about week I'll open this up and see what it looks like. Talk to you later bye.

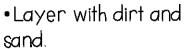
## These are 2 different video read alouds of the story Wiggling Worms at Work:

https://www.youtube.com/watch?v=e-iJU-CcelE (\*this is the one transcripted above and also shows an example of a worm jar)

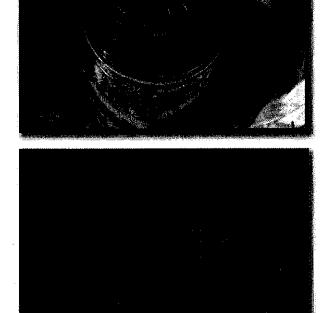
https://www.youtube.com/watch?v=AJOdHUb8JKA (\*this one has closer images of the pages of the book)







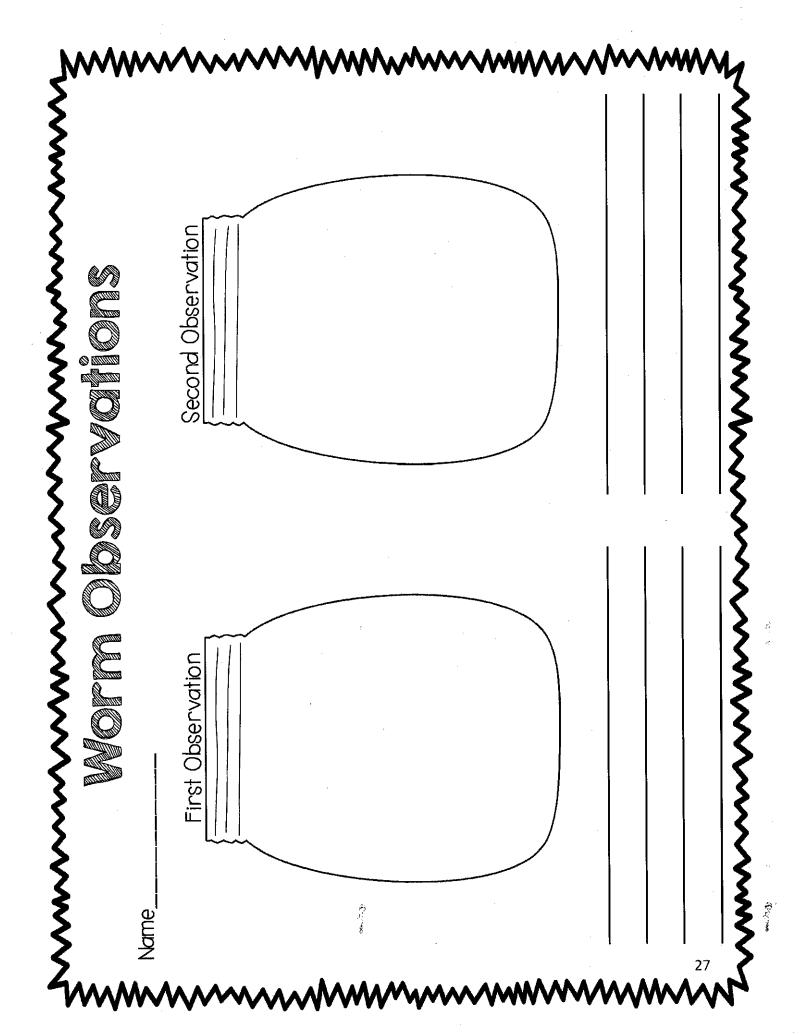
- Add worms
- •Cover with black construction paper.



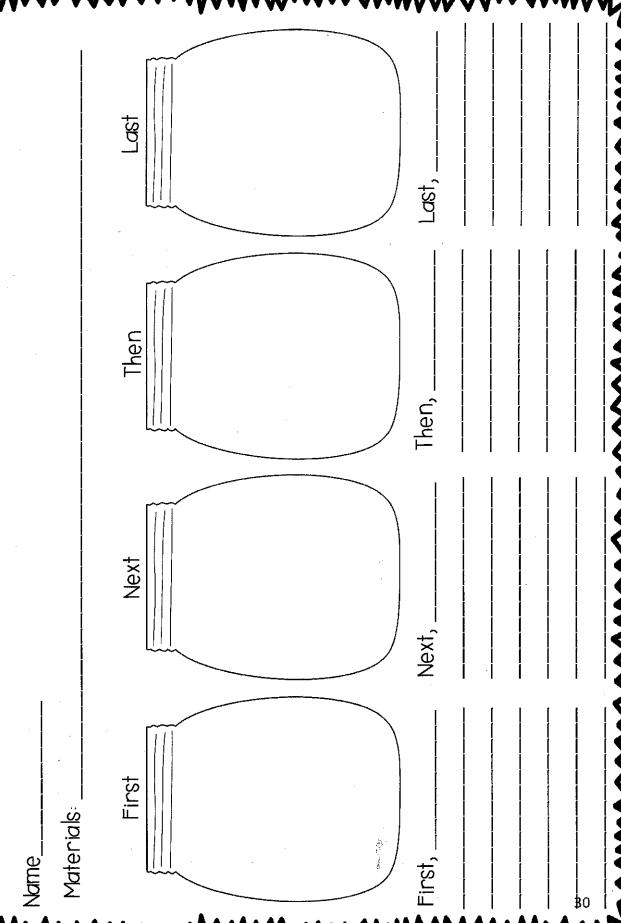
I usually put my students into groups of four. If the sand/dirt is dry you will need to mist with water. Make sure to have your students complete the first observation right away. The worms begin to tunnel quickly.

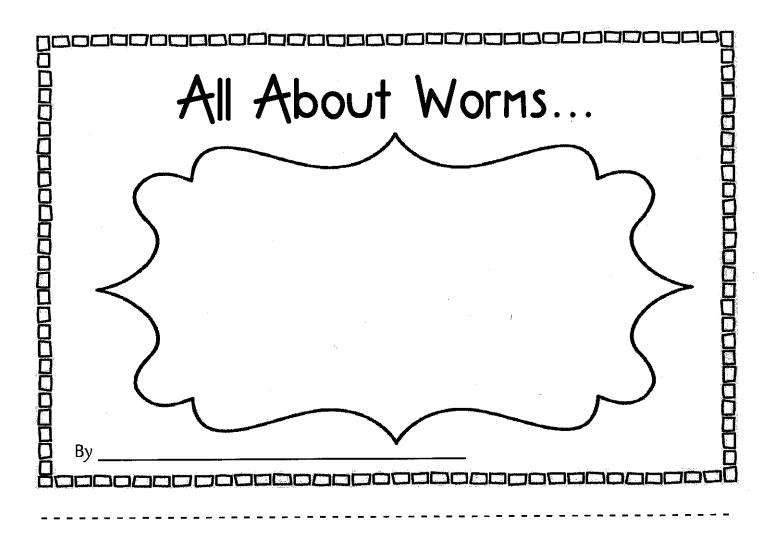
My students usually like to look at the worms each day, but I always have them complete the second observations after about 4 days. By this time the worms will have mixed up the sand and soil.

\*Students should observe that worms help the earth by bosening soil, creating tunnels for rain water, and mixing soil and dirt to help plants grow.



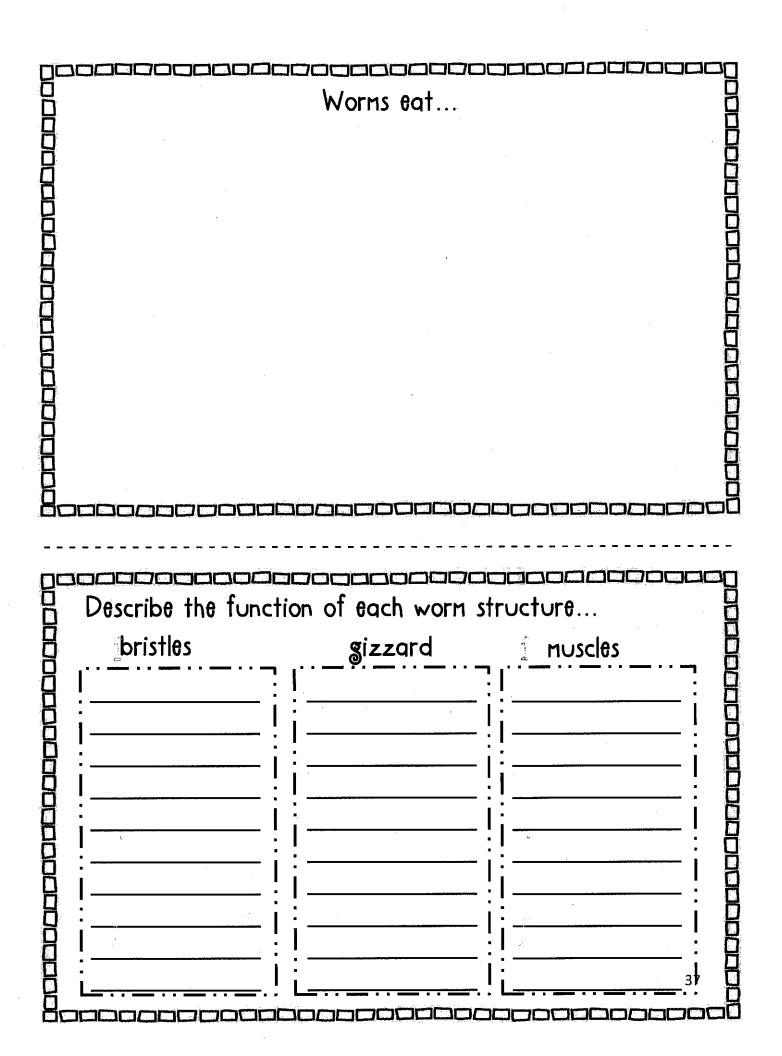
# How to Build a Worm Habitat





Draw and label a worm.

36



	The COOLEST thing I learned about worms	
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	How do worms help the earth? Draw and describe.	
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1. Bottlenose dolphins are fast swimmers and powerful jumpers. This dolphin is about 7 feet long. But it can jump out of the water 4 times its length. How high can it jump?



2. Although they live underwater, dolphins do have to come up for air.

If a dolphin comes up for air every 10 minutes, how many times does it come up in an hour?



feet

times



Can you jump 4 times your height? (I didn't think so!)

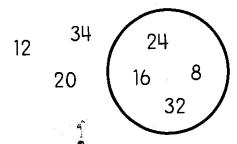
3.

## DRAW AN ARRAY +

Draw an array to show  $6 \times 8$ .

## WHAT'S THE RULE?

All of the numbers inside the circle follow a rule. The numbers outside do not follow the rule.



X

What's the rule?

5. Are dolphins fish? (To find out, write the letter that goes with each answer)

$$^{\circ}8 \times 8 =$$
 **M**

$$9 \times 3 =$$
 **R**

$$4 \times 9 =$$
\_\_\_\_**N**

$$8 \times 9 =$$
 **A**  $5 \times 9 =$  **H**

$$5 \times 9 = H$$

$$3 \times 8 =$$
 **O**

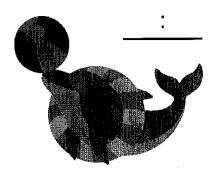
## NAME

I. Many dolphins live in aquariums and theme parks. They are fun to watch because they



Write <, >, or =.

2. The next dolphin show starts in 35 minutes. It is now 5:10. What time will the next show start?



3

923 <u>- 655</u>



245 + 165

522 + 365 + ROUND IT +

Round each number to the nearest 10 and 100.

176		
299		
822		
5 <del>4</del> 5	•	

5.

# **6 6**

# Magic Sum = 15

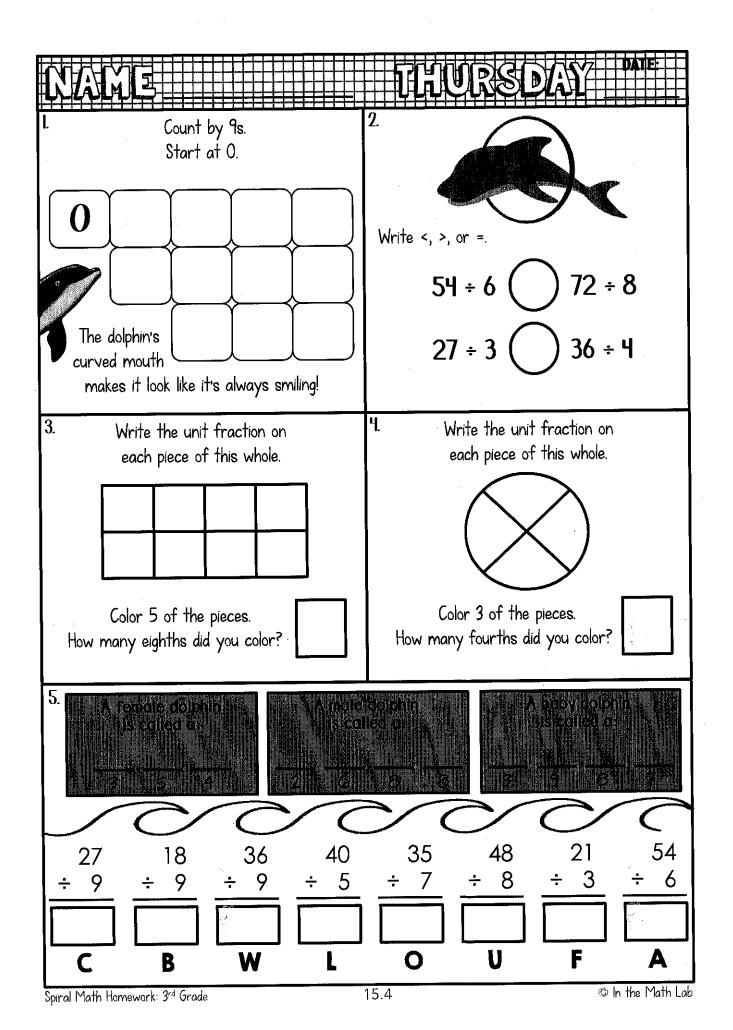
Use each of these numbers

3 4 5 6 7

to fill each square so that the sum of the numbers across and down equals 15.

You can use each number only once. The 6 is filled in for you.

CAME	WEDNESDAY
I This graph shows the amount of fish dolphins eat at the Sea Adventures Aquarium.	2
Dolphin 2 Dolphin 3 Dolphin 3 Dolphin 3 Dolphin 3 Dolphin 3	b) Dolphin 2 ate kg more fish than Dolphin 3.  c) Dolphin 3 ate kg less fish than Dolphin 1.  d) Which dolphin ate the least?
a) How much fish did Dolphin 2 eat?kg  3. How many equal pieces	e) How much fish did they eat in all? kg  4. How many equal pieces
what is the unit fraction?	what is the unit fraction?
5.	How fast can you solve?
q 7 <u>x 3</u> <u>x 8</u> <u>x</u>	9 8 7 x 4
3 8 x 3 x 3	8 q 8 8 x q x 5

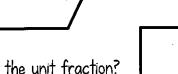


I. Mr. Baxter set up a running race around some cones in the gym. Patrick ran the race in 53 seconds. Maria ran it in 39 seconds. How many seconds faster was Maria?

Split this hexagon into halves.



What is the unit fraction?





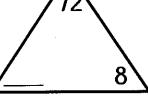
seconds





Fact/72 3. **Family** 

What number is missing?



	X	_8_	=	
--	---	-----	---	--

## MENTAL MATH +

Try to solve these in your head. Then write the answer.

HINT: Add 10 first, then subtract 1.



It's a basketball throwing contest!

The table below shows the number of baskets made by 4 kids.

		2-point	3-point
		<u>Baskets</u>	<u>Baskets</u>
)	Tyrone	3	2
	Mandy	1	3
• • •	lsaac '	4	0
	Laura	3	3

- a. How many total points did Tyrone score? \_\_\_\_\_
- b. Who scored the least points?
- c. Who scored more points-Tyrone or Mandy?
- d. Who scored the most points?

Adjectives and Articles

Name\_\_\_\_\_

- An adjective is a word that describes a noun.
- An adjective tells what kind or how many.

What kind: We looked at the blue house.

How many: There were two trees in the yard.

# Draw one line under each adjective. Draw two lines under the noun that the adjective describes.

- 1. There is an empty house on our street.
- 2. We walk by the quiet house daily.
- 3. I try to look in the dark windows.
- 4. There are still several bushes in the yard.
- 5. I saw a big crowd outside the yellow house.
- 6. Six men were fixing up the old house.
- 7. I thought I would make a good helper.
- 8. Many people worked on the pretty house.
- 9. I learned to hammer long nails.
- 10. We gave the beautiful house to a family.
- 11. We planted tall trees in the front.
- 12. The flat roof no longer leaks.

- An adjective tells what kind or how many.
- Use the articles a and an before singular nouns when referring to something general. Use a before a word starting with a consonant. Use an before a word starting with a vowel.
- Use the before a singular or plural noun when referring to something specific.

Complete each sentence with an article. Articles may be used more than once.

a an the

- 1. My family lives in \_\_\_\_\_ apartment building.
- 2. We have lived in \_\_\_\_\_ building for five years.
- 3. Our building is on \_\_\_\_\_ nice street.
- 4. All \_\_\_\_\_ streets in my neighborhood are lined with trees.
- 5. My brother and I share \_\_\_\_\_ room.
- 6. Our little sister has \_\_\_\_\_ smallest bedroom.
- 7. There is \_\_\_\_\_ orange rug on her bedroom floor.
- 8. We live near \_\_\_\_\_ park.
- 9. \_\_\_\_\_ park is very beautiful.
- 10. My best friend lives in \_\_\_\_\_ blue house nearby.
- 11. Behind his house is \_\_\_\_\_ huge yard.
- 12. After school we play soccer with \_\_\_\_\_ old ball that I found.

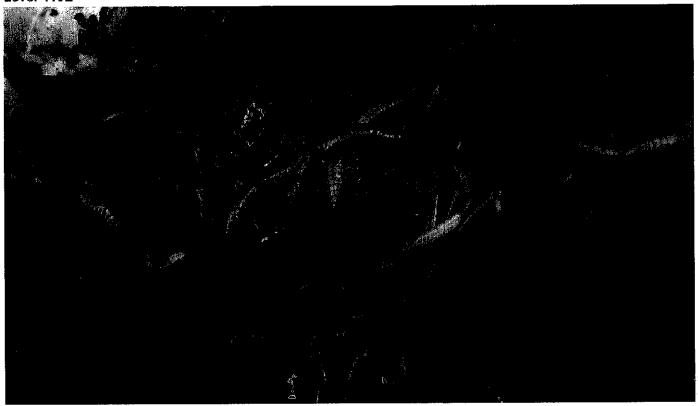




# Plants and animals benefit greatly from the actions of earthworms

By HowStuffWorks, adapted by Newsela staff on 05.09.19 Word Count **258** 

Level 410L



Earthworms wriggle in the dirt, breaking up soil. They are trash collectors and farmers, allowing plants to grow. Photo by: Creative Commons

Earthworms help local plants and animals. They break down dead leaves. They also help break down other natural waste.

Worms are eating machines. They break the waste down into smaller parts. Worms take nutrients from the waste. They also give some of those nutrients to the soil. Worms poop out castings. These castings are packed with nitrogen. This is an important substance. Plants need nitrogen to grow.

Earthworms help in other ways, too. Have you ever watched rain soak into the ground? You can thank worms. They give the rain a place to go. Worms make holes underground. These are called burrows.

## Sliding Through The Dirt

Then they make a slimy mucus. The mucus helps worms slide through the dirt. It coats the sides of the burrows. This makes the dirt stick together. It keeps the burrows from caving in.

Worms help stop flooding, too. Rain seeps through the burrows into the ground. The burrows also clean the water.

Earthworms till the soil, too. This means they make tunnels deep underground. Then they move the soil up and down. They break up the soil and let the air in.

## **Helping Plant Roots To Grow**

The air makes the soil looser. This lets plant roots grow more easily. Earthworms break up minerals in the soil. These minerals help plants grow. Plants need rich soil to make food. Earthworms are natural earth movers.

Earthworms act like the Earth's belly. They help take out waste. They also help give the Earth nutrients. These nutrients help animals and plants grow.

## Quiz

1 .	What is an	important substance in worm castings?		
	(A)	soil		
	(B)	mucus		
	(C)	oxygen		
	(D)	nitrogen		
2	HOW do e	earthworms stop flooding?		
•	(A)	They poop out different nutrients into the soil.		
	(B)	They leave slimy mucus as they slide through the dirt.		
	(C)	They build underground holes where the water can seep in.		
	(D)	They break down waste into very small pieces.		
3	How does	the way earthworms move through the ground help plants?		
	(A)	They break down the dead leaves.		
	(B)	They break down waste and take nutrients.		
	(C)	They make the soil looser for plant roots to grow.		
	(D)	They make mucus that causes the the dirt to stick together.		
4	Which sentence from the section "Sliding Through The Dirt" explains WHY earthworms' burrows are helpful?			
	(A)	Then they make a slimy mucus.		
	(B)	It coats the sides of the burrows.		
	(C)	It keeps the burrows from caving in.		
	(D)	The burrows also clean the water.		
5	What does	s it mean when earthworms till the soil?		
	(A)	It means that they make a slimy mucus.		
	(B)	It means that they act like the Earth's belly.		
	(C)	It means they make tunnels deep underground.		
	(D)	It means that they help break down natural waste into smaller parts.		
6	WHY do p	plants need earthworms' castings?		
	(A)	because mucus in the castings gives plants water		
	(B)	because castings help plants to collect rain		
	(C)	because castings take away the dead leaves		
	(D)	because nitrogen in the castings help plants to grow		
7	How do e	arthworms help stop flooding?		
	(A)	They poop out castings packed with nitrogen that push water away.		
	(B)	They break down dead leaves that block water from flooding their burrows.		
	(C)	They coat the tunnels they make with mucus and the rain seeps through them into the ground.		
	(D)	They move the soil up and down, spreading minerals underground in the soil.		

- (B) Plant waste gets eaten very quickly.
- (C) Plants have trouble getting nutrients.
- (D) Plants do not get enough water.

Æ.

Name\_\_\_\_\_

Test: Adjectives and Articles

Find the adjective that tells what kind or how many. Write the adjective on the line.

adject	ive on the line.
1. l ca	arried the heavy cans of paint
<b>2.</b> Th	e bright colors spilled out from the can.
3. We	e painted in broad strokes.
4. It t	ook time for the wet paint to dry.
<b>5.</b> Th	e paint had a soft glow.
<b>6.</b> Th	e orange color is on the wall.
<b>7.</b> I h	eld the wooden handle of the brush
answe	e if a, an, or the belongs in the sentence. Write your er on the line.  narked inch on the piece of wood.
	ooked in the toolbox for saw.
	en I began to saw at inch mark.
<b>11.</b> l d	rew line across the board with a pencil
<b>12.</b> l ca	arefully cut wood with my saw.
<b>13.</b> l h	ammered nail in the wood.
<b>14.</b> Th	en I evened out edges.
<b>15.</b> I cl	losedtoolbox.

Adjectives
That Compare

Add -er to an adjective to compare two nouns.

Add -est to an adjective to compare more than two nouns.

A spider's legs are longer than an ant's legs.

That is the biggest spider in the barn.

## Circle the correct adjective for each sentence.

- 1. I live in the (quieter, quietest) house on the street.
- 2. The living room is the (brighter, brightest) room of all.
- 3. The sun is (warmer, warmest) in that room than anywhere else in the house.
- 4. It is (cooler, coolest) in the attic than outside in the yard.
- 5. Our attic is home to the (smaller, smallest) spiders I have ever seen.
- 6. One spider is (darker, darkest) than the others.
- 7. This spider here moves (faster, fastest) than that one.
- 8. It has the (thicker, thickest) legs of all the spiders.
- 9. One spider web is (higher, highest) than every other web.
- 10. Its (longer, longest) string reaches all the way down to the floor.
- 11. I think spiders move (slower, slowest) than ants do.
- 12. My friend Juan is the (taller, tallest) student in our class.
- 13. That means I'm (shorter, shortest) than he is.
- 14. I talk (louder, loudest) than he does, though.
- 15. We believe the (smarter, smartest) idea is to study every day.