

# Week Five Literacy – Grade Four

## Session One

- Read the Key Vocabulary (L.4.4)
- Read the passage Living with the “Good Germs” (RI.4.4)
- Read aloud to practice fluency – aim for connected, smooth reading at a conversation rate
- Complete the vocabulary questions

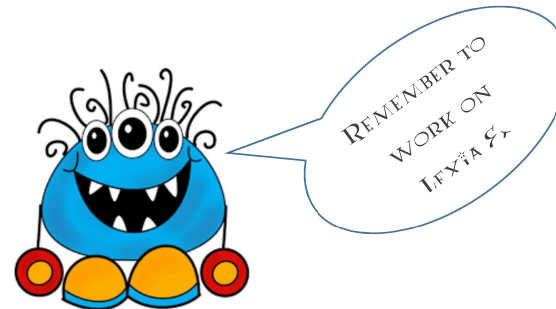
Key Vocabulary		
variety	noun	A <i>variety</i> means an assortment of strange things
nestle	verb	To <i>nestle</i> is to cuddle
bacteria	noun	<i>Bacteria</i> is tiny, one celled organism
microorganism	noun	A <i>microorganism</i> is a living thing so tiny it must be viewed with a microscope
deposits	noun	A <i>deposit</i> is a layer or clump of some material
absorbs	verb	To <i>absorb</i> to soak up
digestive systems	noun	A <i>digestive system</i> is the set of processes that breaks down food inside the body
disease	noun	A <i>disease</i> is an impairment of health
pores	noun	A pore is a minute opening in a surface, especially the skin, through which gases, liquids, or microscopic particles can pass.
mites	noun	Mites are numerous very small to minute arachnids often infesting animals or plants or stored foods
immune system	noun	An <i>immune system</i> is a system that protects the body from foreign substances and pathogenic organisms by producing the immune response.

1. This word means a one celled organism.
  - a. microorganism
  - b. bacteria
  - c. disease
  - d. pores
2. Complete this sentence using a word from the key vocabulary list:  
There are a \_\_\_\_\_ of germs on most surfaces.
3. What definition of **disease** makes the most sense in the following sentence?  
Bad germs can cause you to get a **disease** that requires medication.
  - a. Definition One: obsolete
  - b. Definition Two: an impairment of health
  - c. Definition Three: a harmful development
4. Create your own complete sentence using the word **absorbs**.

## Session Two

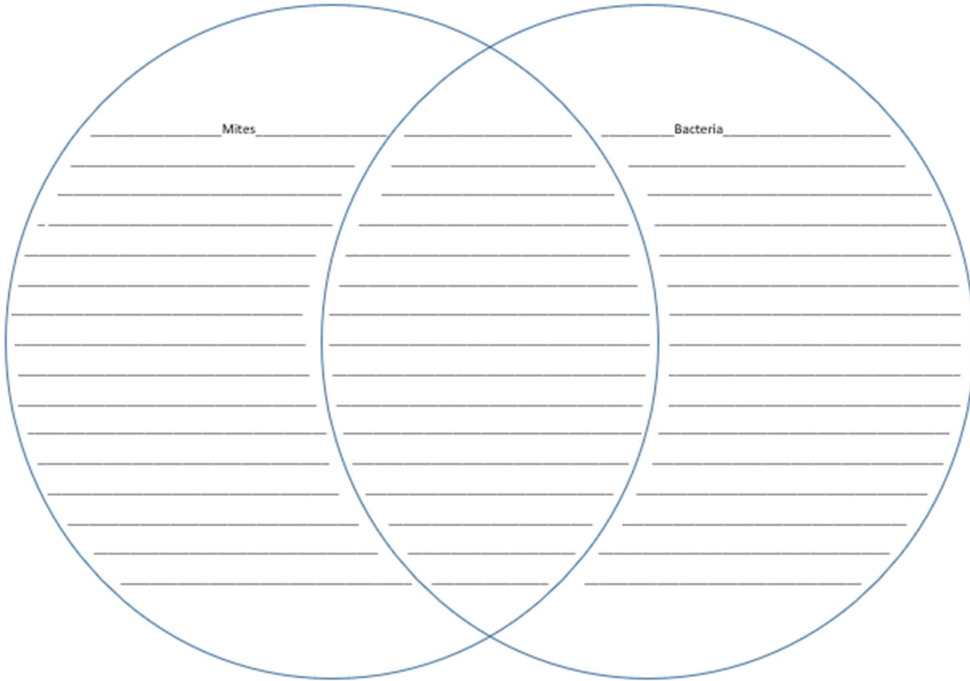
- Reread Living with the “Good Germs”
- Answer the following questions:

1. Where do tiny mites like to live on our bodies?
  - A. Faces
  - B. Eyelashes
  - C. Follicles
  - D. All of the above
2. \_\_\_\_\_ are the processes in our bodies that keep us safe from diseases. They work constantly to keep the number of mites on our bodies (circle one) low or high.
3. Does your stomach have large numbers of bacteria? Use text evidence to support your answer. Write complete sentences.
4. In our Environments science unit this spring, we would have learned that good environments help things sprout and grow. Your mouth is an environment too. How can you support a good environment to keep your mouth healthy? Use text evidence to support your answer. Use complete sentences.



Session Three

1. Use the Venn Diagram to compare bacteria to mites.
2. Reread the passage and find 3 or more ways that bacteria and mites are the same and different.
3. Use the information from the Venn Diagram to write a paragraph, using 5-7 complete sentences.



Write a paragraph comparing and contrasting bacteria and mites:

(title) \_\_\_\_\_

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## Living with the “Good Germs”

We wash our bodies to keep our skin clean. We wash our hands and our food to keep disease-causing germs from getting into our bodies. These are healthy practices, but they don't begin to keep us germ-free. Our bodies are the home planet for an enormous **variety** of tiny creatures, some of them on us and some of them in us. And that's a good thing.

For starters, tiny mites make their homes on our faces and in our eyelashes. Although they are actually relatives of spiders, these

creatures are invisible to the naked eye. Each one is less than 0.016 of an inch (0.4 millimeters) long. They can slip easily into facial pores, those extremely small openings on the nose, forehead, cheeks, and chin. These face mites particularly like to **nestle** inside our follicles, the pores from which hair grows. The tiny creatures feed on the oil and dead skin cells in our follicles and also lay eggs there. But don't worry about rising mite populations! Our immune systems, the collection of processes in our bodies that protect us from disease, work constantly to keep down these mites' numbers. As a result, we don't even notice them.

Our skin is also home to much, much smaller forms of life, each consisting of just a single cell: bacteria. We generally have over 200 kinds of **bacteria** living on our skin. Instead of harming us, these beneficial bacteria help with the healing of wounds. But that's nothing compared with the bacteria inside our bodies.

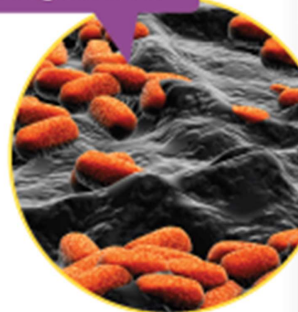
A healthy human body contains about 30 to 50 trillion cells—and about that many bacteria, too! Our immune systems target other **microorganisms** that cause us harm but not these bacteria. Like the ones on our skin, these bacteria are basically harmless or even helpful.

Let's start with our mouths. Some 25 kinds of bacteria live around our teeth and in small openings in our gums. Brushing and flossing each day keeps their numbers down and prevents them from forming sticky **deposits** called plaque. But there will always be a large colony of bacteria in our mouths, and that's good. They

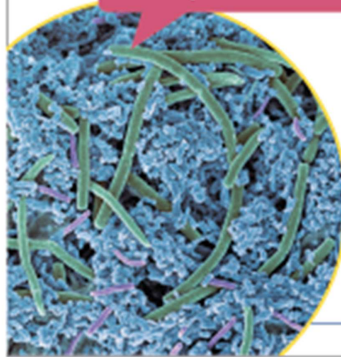
compete for the same food as the bad bacteria that can get in our mouths, helping to prevent illness.

There are very few bacteria in our stomachs because the stomach is such a high-acid environment. But our guts generally contain at least

Some bacteria in our guts help us digest our food.



Plaque is a sticky film that forms on teeth. That's why it's so important to brush.



500 kinds of bacteria, numbering in the billions. These bacteria help us digest our food (we couldn't do it without them!), produce vitamins, **absorb** nutrients, and fight off harmful bacteria that have invaded our **digestive systems**.

So don't worry about all the extra company our bodies contain. It's perfectly healthy!



Write  $<$ ,  $>$ , or  $=$  to make each number sentence true.

1.  $\frac{5}{6}$  \_\_\_\_\_  $\frac{1}{6}$

2.  $\frac{3}{10}$  \_\_\_\_\_  $\frac{3}{4}$

3.  $\frac{2}{3}$  \_\_\_\_\_  $\frac{10}{15}$

4.  $\frac{10}{40}$  \_\_\_\_\_  $\frac{4}{16}$

5.  $\frac{4}{9}$  \_\_\_\_\_  $\frac{7}{9}$

6.  $\frac{5}{6}$  \_\_\_\_\_  $\frac{5}{8}$

7. Explain how you solved Problem 1. \_\_\_\_\_  
\_\_\_\_\_

8. Explain how you solved Problem 2. \_\_\_\_\_  
\_\_\_\_\_

9. Circle each fraction that is less than  $\frac{1}{2}$ .

$\frac{7}{8}$     $\frac{1}{4}$     $\frac{4}{10}$     $\frac{7}{12}$     $\frac{5}{9}$     $\frac{3}{7}$     $\frac{24}{50}$     $\frac{67}{100}$

Write the fractions in order from smallest to largest.

10.  $\frac{3}{12}$ ,  $\frac{7}{12}$ ,  $\frac{1}{12}$ ,  $\frac{11}{12}$ ,  $\frac{8}{12}$      \_\_\_\_\_ smallest \_\_\_\_\_ largest

11.  $\frac{1}{5}$ ,  $\frac{1}{3}$ ,  $\frac{1}{20}$ ,  $\frac{1}{2}$ ,  $\frac{1}{50}$      \_\_\_\_\_ smallest \_\_\_\_\_ largest

12.  $\frac{4}{5}$ ,  $\frac{4}{100}$ ,  $\frac{4}{4}$ ,  $\frac{4}{8}$ ,  $\frac{4}{12}$      \_\_\_\_\_ smallest \_\_\_\_\_ largest

**Practice**

13.  $\frac{1}{6}$  of 30 = \_\_\_\_\_

14.  $\frac{3}{4}$  of \_\_\_\_\_ = 75

15.  $\frac{4}{5}$  of 45 = \_\_\_\_\_



In each name-collection box:

Write the missing number in each fraction so that the fraction belongs in the box. Write one more fraction that can go in the box.

**1.**

$\frac{1}{2}$
$\frac{\square}{4}$
$\frac{5}{\square}$
$\frac{10}{\square}$
$\frac{\square}{18}$

**2.**

$\frac{2}{3}$
$\frac{\square}{9}$
$\frac{12}{\square}$
$\frac{20}{\square}$
$\frac{\square}{12}$

**3.**

$\frac{1}{4}$
$\frac{\square}{12}$
$\frac{5}{\square}$
$\frac{10}{\square}$
$\frac{\square}{100}$

**4.** Make up your own name-collection box problems like the ones above. Ask a friend to solve your problems. Check your friend's work.

**a.**


**b.**


**Practice**

**5.** \_\_\_\_\_ = 95 / 4    **6.** 57 ÷ 3 = \_\_\_\_\_    **7.** \_\_\_\_\_ = 882 / 21



Write 3 equivalent fractions for each decimal.

**Example:**

0.8       $\frac{8}{10}$        $\frac{4}{5}$        $\frac{80}{100}$

1. 0.20      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

2. 0.6      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

3. 0.50      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

4. 0.75      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

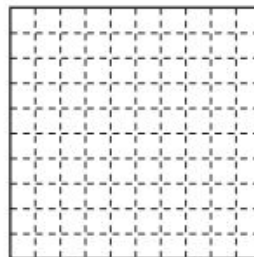
Write an equivalent decimal for each fraction.

5.  $\frac{3}{10}$  \_\_\_\_\_      6.  $\frac{63}{100}$  \_\_\_\_\_      7.  $\frac{7}{10}$  \_\_\_\_\_      8.  $\frac{2}{5}$  \_\_\_\_\_

9. Shade more than  $\frac{53}{100}$  of the square and less than  $\frac{8}{10}$  of the square. Write the value of the shaded part as a decimal and a fraction.

Decimal: \_\_\_\_\_

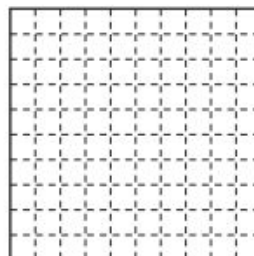
Fraction: \_\_\_\_\_



10. Shade more than  $\frac{11}{100}$  of the square and less than  $\frac{1}{4}$  of the square. Write the value of the shaded part as a decimal and a fraction.

Decimal: \_\_\_\_\_

Fraction: \_\_\_\_\_



**Practice**

11. \_\_\_\_\_ =  $78 * 9$       12.  $461 * 7 =$  \_\_\_\_\_      13. \_\_\_\_\_ =  $39 * 25$



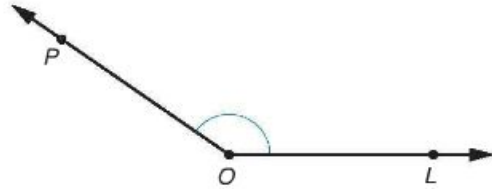


1. What fraction of the clock face is shaded?

\_\_\_\_\_



2.  $\angle POL$  is an \_\_\_\_\_ (acute or obtuse) angle.



The measure of  $\angle POL$  is

\_\_\_\_\_.



3. Multiply. Use a paper-and-pencil algorithm.

\_\_\_\_\_ =  $94 \times 34$



4. The five largest birds that are able to fly have the following weights: 16.3, 16.8, 20.9, 15.8, and 15.8 kilograms.

- a. What is the median weight? \_\_\_\_\_ kg
- b. What is the mode? \_\_\_\_\_ kg
- c. What is the range? \_\_\_\_\_ kg
- d. What is the mean? \_\_\_\_\_ kg



5. a. What city in Region 1 is located near  $30^\circ\text{N}$  latitude and  $31^\circ\text{E}$  longitude?

\_\_\_\_\_

b. In which country is the city located?

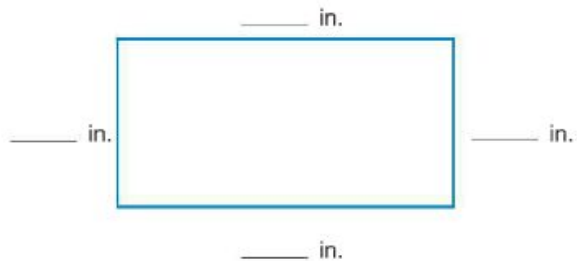
\_\_\_\_\_

c. On which continent is the city located?

\_\_\_\_\_



6. a. Measure and record the length of each side of the rectangle.



b. What is the total distance around the rectangle called? Circle one.

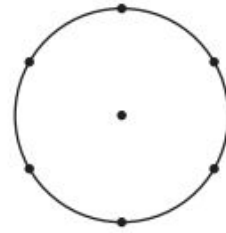
perimeter      area





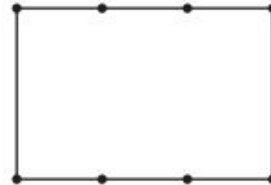
1. Divide the circle into 6 equal parts.  
Color  $\frac{5}{6}$  of the circle.

<b>Whole</b>
circle



2. Divide the rectangle into 3 equal parts.  
Shade  $\frac{2}{3}$  of the rectangle.

<b>Whole</b>
rectangle

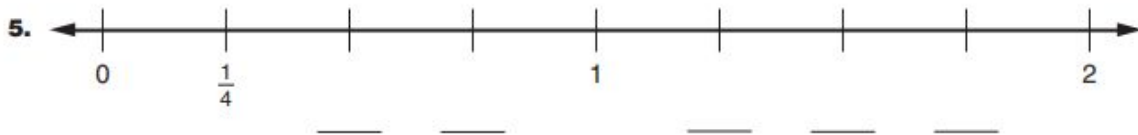
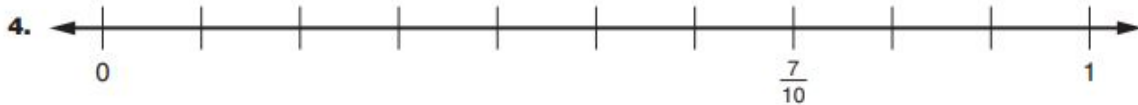


3. Divide each square into fourths.  
Color  $1\frac{3}{4}$  of the squares.

<b>Whole</b>
square



Fill in the missing fractions and mixed numbers on the number lines.



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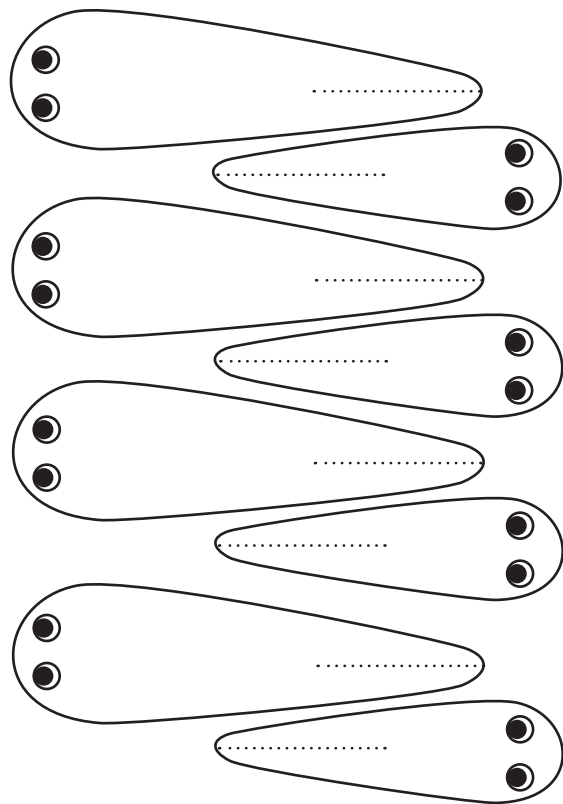
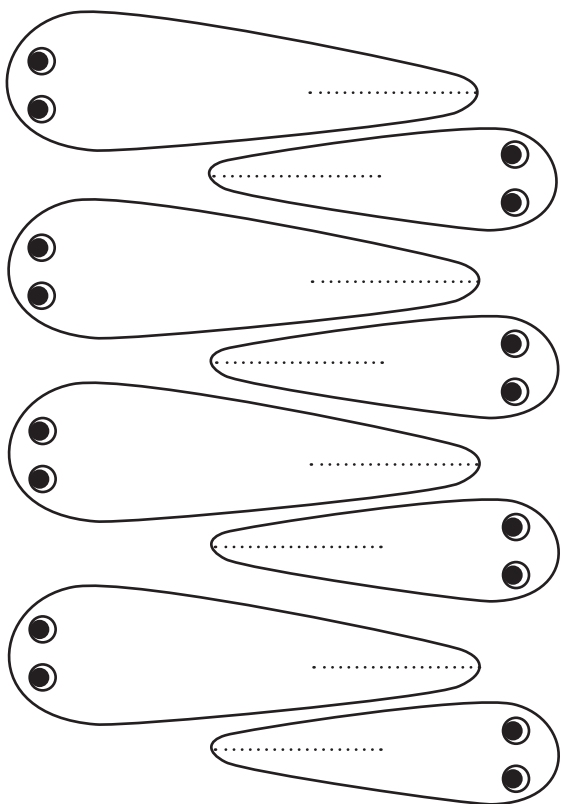
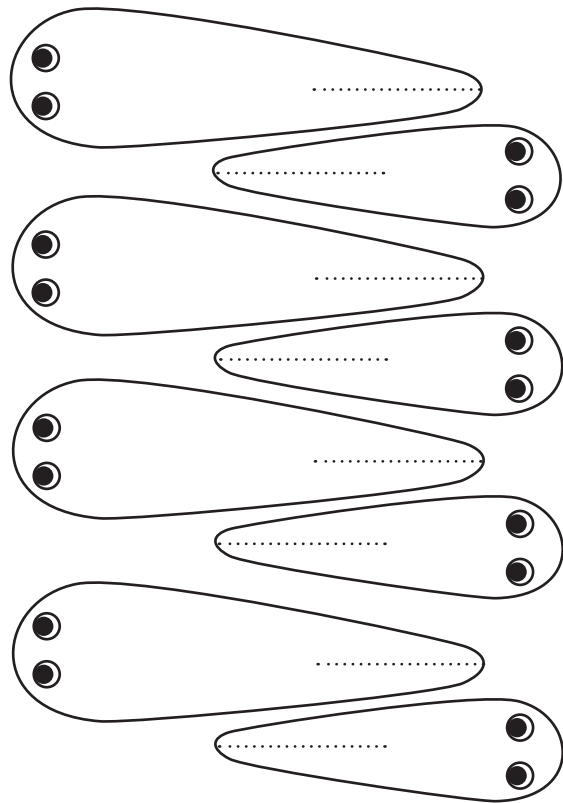
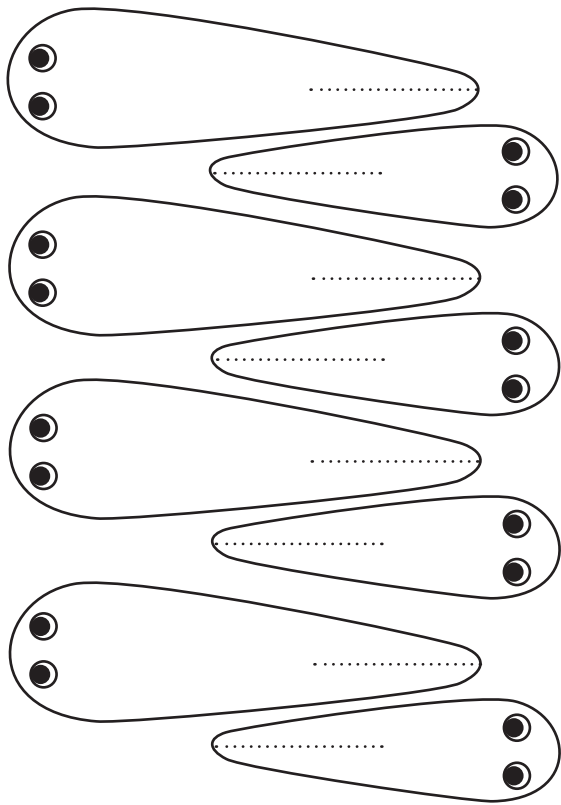
## Practice

6.  $854 + 267 =$  \_\_\_\_\_      7. \_\_\_\_\_  $= 3,398 + 2,635$   
 8. \_\_\_\_\_  $= 6,374 - 755$       9.  $5,947 - 3,972 =$  \_\_\_\_\_



# ANIMAL SHAPES FOR GROUPS 1-4

## Investigation 3: Brine Shrimp Hatching





The **Chameleon** is predominantly green to match its treetop environment, although special pigmented cells can cause it to brighten or darken as its mood or temperature changes. Disguised, it lies in wait then shoots its tongue out, catching insects in fractions of a second.

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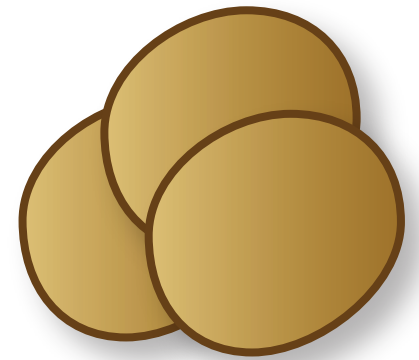
Creature Camouflage: Hidden Predators

# Types of Soil

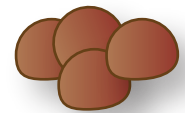
Soil differs greatly from place to place, but all soil is made up of different amounts of three types of particles: sand, silt and clay.

## What are the types of soil particles?

**Sand** is the largest particle found in soil. When you rub it, it feels rough and gritty. Sand does not have many nutrients, but it dries quickly after rainfall, and it is good for *drainage*, which means it lets water flow through it easily.



**Silt** is the medium-sized particle found in soil. Silt feels smooth and powdery when dry, and it feels slippery when wet. Silt can be packed down into a crust that makes it harder for water and air to pass through it.



**Clay** is the smallest particle found in soil. Clay feels smooth and hard as stone when dry, and it feels sticky when wet. While clay can hold many nutrients, it does not allow much air or water to pass through. Too much clay can make the soil heavy and not good for growing plants.



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**Loam** is a mix of sand, silt and clay. It is the best type of soil for growing plants. Loam breaks up easily and holds moisture and nutrients, while still allowing some water and air to pass through.

# Types of Soil

## Response Questions

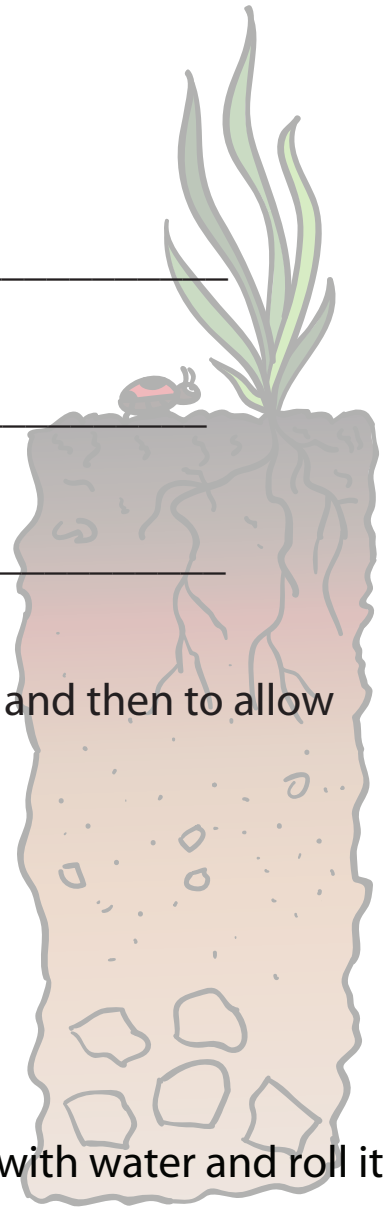
Which soil type can become hard as stone when dry? \_\_\_\_\_

Which soil type dries out quickly after a rainfall? \_\_\_\_\_

Which soil type would be best for building a structure? \_\_\_\_\_

Which soil type would a gardener need to break up every now and then to allow more drainage? \_\_\_\_\_

Which soil type would a cactus do well in? \_\_\_\_\_



## TRY THIS!

Dig down at least six inches and grab a handful of soil. Soak it with water and roll it into a ball in your hand.



Sand

If you cannot make a ball out of it, it is mostly **sand**.



Silt

If it forms a loose ball but crumbles when squeezed it is mostly **silt**.



Clay

If it forms a packed ball and can be reshaped into a snake, it is mostly **clay**.

# Soil

Let's study the earth by learning about the part of it that we are most familiar with: the **soil**. Soil is found on the upper-most layer of the earth's crust.

## What is soil?

Soil is a mixture of four main ingredients: weathered rock, organic matter, air and water. The weathered rock can be in the form of sand, silt, clay, pebbles or larger rocks. Organic matter can be anything from old leaves, dead animals and plants, to microorganisms—tiny living things, like bacteria. The last two ingredients are air and water. Without air and water, the microorganisms found in soil cannot live, grow, or help dead matter to decay.

## Why is soil so important?

Soil is important because it provides a place where organisms and bacteria can live. Plants rely on soil for nutrients, water and mineral salts. Plants in turn provide the oxygen we breathe, the food we eat, the clothes we wear, and the foundation and building materials we use to make our homes. We could not meet our basic needs without soil!

**Comprehension:** What is the main idea of these two passages?

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# Organism Hunt

Through genetics, organisms inherit traits from each of their parents. For humans, this includes height, hair color, eye color, facial features, and much more! Has anyone ever told you that you look like your mom or dad? That's because of genetics!

In the wild, these inherited traits may help an organism survive better in its environment or it may make it more difficult for the organism survive. This is called natural selection.

For this activity we will look at a made-up organism species and see how its coloring helps it survive in its environment. Use the following procedure:

1. Using your blank organism sheet (32 organisms), color 8 red, 8 green, 8 brown, and 8 gray on BOTH SIDES. Cut out the organisms.
2. Next, the organisms need an environment in which to "live". This could be a grassy yard, a driveway, a bed of wood chips, etc. Have a friend or family member randomly spread all 32 of the organisms into the chosen environment. You can spread them yourself if nobody is around.
3. Now you become this organism's main predator. For TWO MINUTES, go around "hunting" these organisms. Keep all that you find.
4. After the two minutes is up, count how many of each colored organism you have left and subtract it from 8 to find out how many organisms survived in the wild. You can copy the chart below to record your results.

	Beginning Number of Organisms	Number of Organisms Found	Number of Organisms Remaining in the Wild
Brown	8		
Gray	8		
Green	8		
Red	8		

Questions to consider:

1. Which color of organism survived best in the environment you chose?
2. Which color of organism had the hardest time surviving in the environment you chose?
3. How did the organism's coloring help it or harm it?
4. How might your results be different if you chose a different environment for your organisms? Which organisms might survive best in a rose garden?
5. If you used green grass for your environment, how might the results be different if you did this mid-summer, when the grass has dried out?
6. What might happen if all the organisms in a species were the same color? What if they were all the color that was easiest to find? Is it possible for all organisms within a species to die?



These are the same instructions as last week.

## State Float Instructions

One of our final Social Studies projects of the year is the state float. A state float is a piece of art that contains information and facts about one of our country's fifty states.

The float can be made out of anything, but we recommend a shoe box if you have one available. If you don't have a shoebox, you can use other sturdy materials as the base.

Below is a list of items that can be included on your state float. These items may be 2- dimensional and drawn, photographed, or printed from a computer. They may also be 3-dimensional objects that are **hand-made by the student**, such as a clay pineapple for Hawaii or poppies made of yellow and orange tissue paper for California; **manufactured** such as a plastic orange for Florida; **or real** such as a potato for Idaho.

***The float can include the following items:***

1. Name of State
2. State Flag
3. State Nickname
4. State Flower
5. State Tree
6. State Bird
7. State Animal
8. State Symbol
9. State economy (how does your state make money?)
10. A map of the state
11. Something the state is famous for (Florida oranges, Wisconsin cheese, etc.)

***Please label each item on your float!***

This project is voluntary, and meant to be a fun way to share your knowledge about your state!

**Be creative and have some fun!**