# 4TH GRADE


## Instructional Packet

Week 3

# A Plant Puzzle

by Josh Adler

Living things like plants, animals, and people need energy to survive and grow. People eat food for energy, but most plants use energy that they get from sunlight.

When you look at plants such as a tree, flower, or grass, what do you see?

You might notice their stems, trunks, branches, leaves, roots, or flowers, but how do they grow? What are they made from? How did the plant make those parts?

Life is a puzzle in many ways. People don't all agree on how life started or why it exists. Yet a simple way of thinking about how plants grow is to think of the plant itself as a piece of a larger puzzle.

Each plant is a part of its unique environment. Different environments could be oceans, forests, deserts, or cities. Each environment also has its own climate, which is partially based on how much sun and rain an area receives every year.

Since only certain plants grow in hot, cool, wet, or dry climates, each environment is made up of different types of plant life. A desert may grow palm trees and cacti, while a forest may

grow tall pines or oak trees.

In order for a plant to grow, it needs three very important puzzle pieces: water, carbon dioxide, and light. Plants use their roots to take in water from the ground. They use their leaves to take in sunlight and carbon dioxide from the air.

Plants use these three puzzle pieces to make their own food in a process called photosynthesis. Using the energy from the sun, plants convert water and carbon dioxide into sugar. This sugar feeds the plant's growth from a seedling into an adult. In the process, the plant releases oxygen into the air.

Another important piece to the growth of many plants is soil. Using their roots, plants take in nutrients from the soil that help them grow. Giving a plant a spot in clean soil is important to make sure it doesn't absorb anything harmful from the dirt.

Plants make their food from carbon dioxide, water and light. They use this food to grow stems, trunks, roots, branches, leaves, and flowers. Now when you look at a tree, flower, or even a blade of grass, you can see all the pieces of the plant and how the entire puzzle fits together.

**Name:** _____ **Date:** _____

**1.** Where do plants get their energy from?

A. the moon

B. sunlight

C. their stem

D. their roots

**2.** What does the passage describe?

A. how plants make food using light, water, and carbon dioxide

B. how plants make food using *only* water and light

C. how plants make food using oxygen, sugar, and soil

D. how plants make food using sugar, light, and water

**3.** The climate determines which plants can grow in a particular environment.

What evidence from the passage best supports this conclusion?

A. "Each plant is a part of its unique environment. Different environments could be oceans, forests, deserts, or cities."

B. "Each environment also has its own climate, which is partially based on how much sun and rain an area receives every year."

C. "A desert may grow palm trees and cacti, while a forest may grow tall pines or oak trees."

D. "Since only certain plants grow in hot, cool, wet, or dry climates, each environment is made up of different types of plant life."

**4.** What would happen to a plant if it grew in polluted soil?

A. The plant would grow faster than in clean soil.

B. The plant would grow the same as in clean soil.

C. The plant would not be healthy and could die.

D. The plant would absorb more nutrients from the soil.

**5.** What is this passage mostly about?

A. how plants grow
B. sunlight and water
C. energy sources
D. nutrients in soil

**6.** Read the following sentences: "Using their roots, plants take in nutrients from the soil that help them grow. Giving a plant a spot in clean soil is important to make sure it doesn't **absorb** anything harmful from the dirt."

As used in the passage, what does "**absorb**" most nearly mean?

A. use something
B. take something in
C. go under something
D. put something out

**7.** Choose the answer that best completes the sentence below.

Different environments have different plants. _____, deserts have cacti and rainforests have ferns.

A. However
B. Finally
C. Meanwhile
D. For example

**8.** With what process does a plant make its own food?

_____

_____

_____

**9.** What are the three puzzle pieces that a plant needs to grow?

**10.** Explain whether plants could make their own food without sunlight.

# WRITING PROMPT

## Week 3

Make a list of 5 things you like to do to get exercise. Check off each one as you complete it throughout the week.

# Expanded form

What is the value of 3 in 2,308? 300

Write 32,084 in expanded form. 30,000 + 2,000 + 80 + 4

What is the value of 6 in these numbers?

| | | | | | |
|---|---|---|---|---|---|
| 26 | | 162 | | 36,904 | |
| 12,612 | | 6,130 | | 567,902 | |
| 13,036 | | 9,764 | | 17,632 | |

What is the value of 4 in these numbers?

| | | | | | |
|---|---|---|---|---|---|
| 14,300 | | 942 | | 8,764 | |
| 10,408 | | 1,043 | | 45,987 | |
| 6,045 | | 804,001 | | 694 | |

Circle the numbers that have a 7 with the value of seventy thousand.

| | | | |
|---|---|---|---|
| 457,682 | 67,924 | 870,234 | 372,987 |
| 171,345 | 767,707 | 79,835 | 16,757 |

Write the numbers in expanded form.

| | |
|---|---|
| 34,897 | |
| 508,061 | |
| 50,810 | |
| 8,945 | |
| 60,098 | |

# Multiplying

Solve each problem.

16 x 4 = (10 x 4) + (6 x 4)
= 40 + 24
= 64

| 10 | 6 |
|---|---|
| x 4 | x 4 |
| 40 | 24 |

40 + 24 = 64

Solve each problem.

| | |
|---|---|
| 18 x 4 | 15 x 6 |
| 17 x 5 | 14 x 7 |
| 19 x 3 | 16 x 6 |
| 23 x 4 | 26 x 5 |
| 24 x 6 | 27 x 4 |
| 32 x 7 | 34 x 4 |

# Expanded form

What is the value of 3 in 2,308? 300

Write 3,417 in expanded form.

(3 x 1,000) + (4 x 100) + (1 x 10) +(7 x 1)

3,000 + 400 + 10 + 7

What is the value of 5 in each of these numbers?

25 _____ 5,904 _____ 52 _____ 2,512 _____ 805 _____

What is the value of 8 in each of these numbers?

8,300 _____ 982 _____ 1,805 _____ 768 _____ 19,873 _____

Circle each number in which 7 has the value of 70.

| | | | | |
|---|---|---|---|---|
| 7,682 | 927 | 870 | 372 | 707 |
| 171 | 767 | 875 | 7,057 | 70,000 |

Write each number in expanded form.

3,897

24,098

50,810

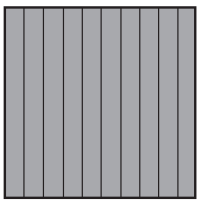
8,945

6,098

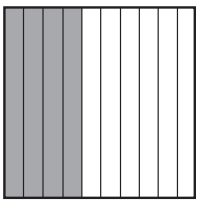
14,003

# Decimal models

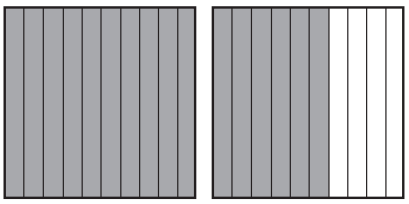
Fill in the grid to show the decimal.



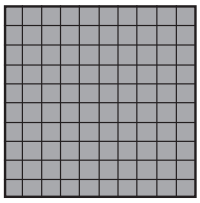
1



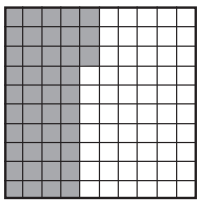
4 tenths



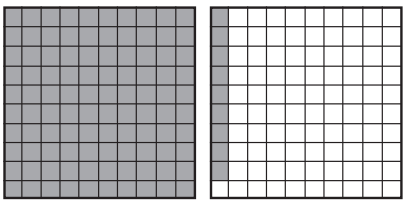
1.6



1

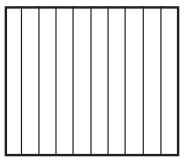


0.43

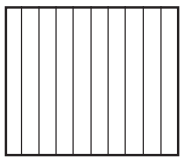


1 and 9 hundredths

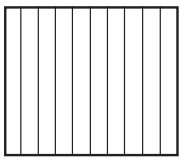
Fill in the grid to show the decimal.



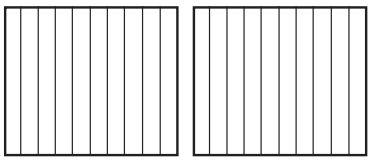
0.8



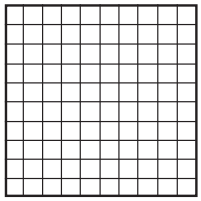
2 tenths



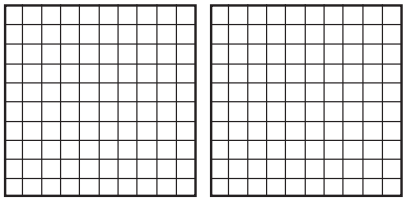
1



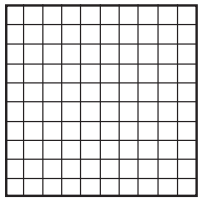
1 and 7 tenths



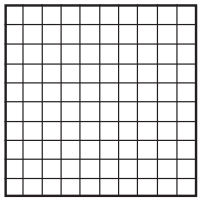
0.23



1 and 37 hundredths

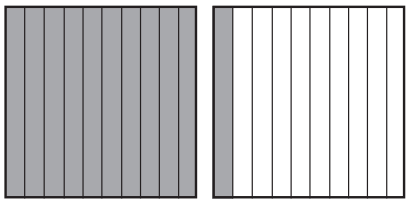


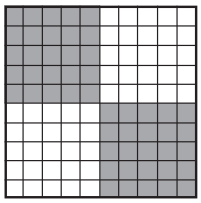
75 hundredths

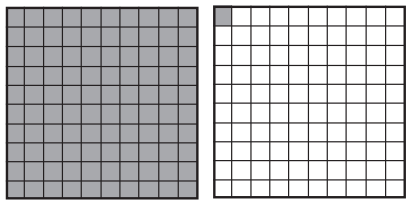


0.62

Write the decimal represented by the grid.

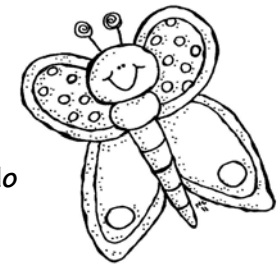






Name:

# Change is Good!



Learning from experience is a great way to learn and improve. It helps us change and do things differently or better. For each of items below, list one or two changes or new strategies you could make.

Be supportive of others:

Stick with it:

Focus and Listen: