

## Additional Resources/Practice/Games

These are completely optional!

ELA	MATH	Science
<a href="http://www.audible.com">www.audible.com</a>  <a href="http://www.jopardylabs.com">www.jopardylabs.com</a>  <a href="http://www.classroommagazines.scholastic.com">www.classroommagazines.scholastic.com</a>  <a href="http://www.imaginelearning.com">www.imaginelearning.com</a>  <a href="http://www.ixl.com">www.ixl.com</a>  <a href="http://www.readworks.org">www.readworks.org</a> For this one, you will need these class codes: 1 <sup>st</sup> Period: S6Q5FE 3 <sup>rd</sup> Period: J6MXC4 4 <sup>th</sup> Period: BB4PYH 5 <sup>th</sup> Period: LHMWN2  Passwords for all classes: 1234	<a href="http://www.mathplayground.com">www.mathplayground.com</a>  <a href="http://www.hoodamath.com">www.hoodamath.com</a>  <a href="http://www.prodigy.com">www.prodigy.com</a>  <a href="http://www.kahoot.com">www.kahoot.com</a>  <a href="http://www.freckle.com">www.freckle.com</a>  <a href="http://www.jopardylabs.com">www.jopardylabs.com</a>  <a href="http://www.ixlmath.com">www.ixlmath.com</a> For this one, I have already set up accounts for you.  Username: First and last name - no spaces followed by 229 For example: tondagainey229  Password: panthers followed by the period you have me Example: if you are in my 3 <sup>rd</sup> period it would be panthers3	<a href="http://www.boredpanda.com/school-dirty-hands-moldy-bread-experiment">www.boredpanda.com/school-dirty-hands-moldy-bread-experiment</a>  <a href="http://www.mommypoppins.com/kids/50-easy-science-experiments">www.mommypoppins.com/kids/50-easy-science-experiments</a>  <a href="http://www.healthline.com/howtomakesanitizer">www.healthline.com/howtomakesanitizer</a>  IF you do any of these experiments at home, please take pictures and send them in

## SECTION 2-1

## SECTION SUMMARY

# Photosynthesis

**Guide for Reading**

- 2
- ◆ What happens during the process of photosynthesis?
  - ◆ How does the sun supply living things with the energy they need?

The sun provides almost all the energy used by living things on Earth. All cells need energy to carry out their functions. The process by which a cell captures the energy in sunlight and uses it to make food is called **photosynthesis**.

During photosynthesis, plants and some other organisms use energy from the sun to convert carbon dioxide and water into oxygen and sugars, including glucose. You can think of photosynthesis as taking place in two stages. The first stage of photosynthesis involves capturing the energy in sunlight. In plants, this energy-capturing process occurs in the leaves and other green parts of the plant. The chloroplasts in plant cells give plants their green color. The green color comes from **pigments**, colored chemical compounds that absorb light. The main pigment found in the chloroplasts of plants is **chlorophyll**. The pigments capture light energy and use it to power the second stage of photosynthesis. In the second stage of photosynthesis, the cell uses the captured energy to produce sugars. The cell needs two raw materials for this stage: water ( $H_2O$ ) and carbon dioxide ( $CO_2$ ). In plants, the roots absorb water from the soil. Carbon dioxide enters the plant through small openings on the undersides of the leaves called **stomata**.

The events of photosynthesis can be summed up in a chemical equation. The raw materials—six molecules of carbon dioxide and six molecules of water—are on the left side of the equation. The products—one molecule of glucose and six molecules of oxygen—are on the right side of the equation. An arrow connects the raw materials to the products. Light energy, which is necessary for the chemical reaction to occur, is written above the arrow.

A plant is an **autotroph**, an organism that makes its own food. The plant's leaves contain sugars made during photosynthesis. A caterpillar is a **heterotroph**, an organism that cannot make its own food. To live, grow, and perform other functions, the caterpillar needs the energy in plant sugars. By eating plants, heterotrophs get energy from the sun in an indirect way. **Nearly all living things obtain energy either directly or indirectly from the energy of sunlight captured during photosynthesis.** Photosynthesis also is essential for the air you breathe. Almost all the oxygen in Earth's atmosphere was produced by living things through the process of photosynthesis.

## SECTION 2-1

## REVIEW AND REINFORCE

# Photosynthesis

## ◆ Understanding Main Ideas

Fill in the blanks in the photosynthesis equation below with the names of the missing compounds. Then answer the questions that follow in the spaces provided.

1. \_\_\_\_\_ + 2. \_\_\_\_\_  $\xrightarrow{\text{sunlight}}$  3. \_\_\_\_\_ + 4. \_\_\_\_\_

5. What are the raw materials of photosynthesis?

\_\_\_\_\_

6. What are the products of photosynthesis?

\_\_\_\_\_

7. Why is *sunlight* written above the arrow in the equation, rather than on either side of it?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. Where does photosynthesis occur?

\_\_\_\_\_

\_\_\_\_\_

## ◆ Building Vocabulary

Fill in the blank to complete each statement.

9. The process by which a cell captures the energy in sunlight and uses it to make food is called \_\_\_\_\_.

10. \_\_\_\_\_ are colored chemical compounds that absorb light.

11. The main pigment found in the chloroplasts of plants is \_\_\_\_\_.

12. \_\_\_\_\_ are small openings on the undersides of leaves through which carbon dioxide enters a plant.

13. An organism that makes its own food is a(n) \_\_\_\_\_.

14. A(n) \_\_\_\_\_ is an organism that cannot make its own food.

**2**

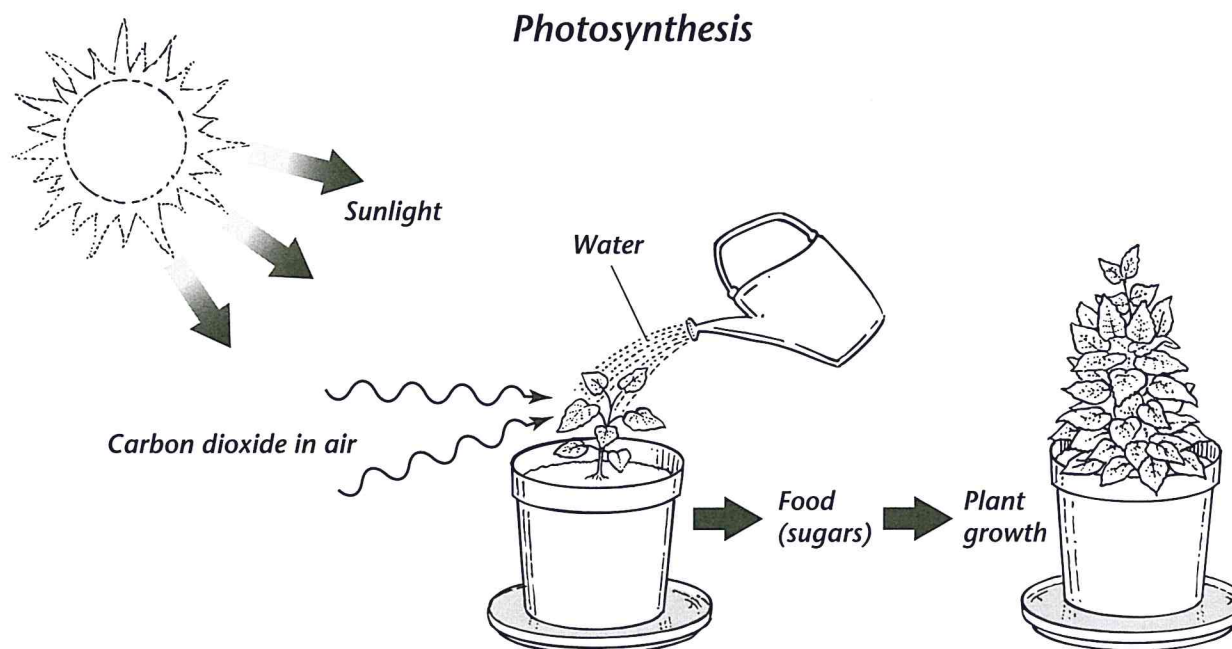
## CHAPTER 2 PROJECT

## WORKSHEET 2

## Understanding Photosynthesis

Why do plants need light to grow? Plants need light for photosynthesis, a process you will read about in Section 1. As you will see, photosynthesis consists of a series of chemical reactions. However, the role photosynthesis plays in plant growth—and in the outcome of the Chapter 2 Project—is easy to understand from the flowchart below.

2



Use the flowchart to answer the following questions.

1. What three things are required for photosynthesis to occur?

\_\_\_\_\_

2. What does photosynthesis lead to?

\_\_\_\_\_

3. How does food affect plant size?

\_\_\_\_\_

4. Without sunlight, photosynthesis cannot occur. How would this affect plant size?

\_\_\_\_\_

5. Predict how photosynthesis will affect the outcome of your experiment.

\_\_\_\_\_

\_\_\_\_\_

## Remote-Control Classroom

### An Iowa class heads into high-tech tests.

Every student in class has a remote control, and the kids are clicking away at the screen. But they aren't changing channels. They're taking a test! Terry Rex's fourth graders at Wings Park Elementary School in Oelwein, Iowa, are using a new kind of classroom technology. Instead of writing with pencils on exam papers, the students use remote controls to take tests.

"It's more fun," Courtney Ricchio, 9, told *WR News*. "I don't have to write, and my hand doesn't get tired." The remote controls are part of the Classroom Performance System (CPS). When students use CPS to take a test, the questions appear on an electronic screen. Students key in their answers on the remote-control response pad.

Rex is one of the first teachers in Iowa to use CPS. His students use the technology for more than taking tests. They also play learning games with the system. Sam Myott, 9, says his favorite CPS activity is a football game. "It's a math game with multiplication and subtraction," he told *WR News*. "Since it's on the computer, it's more fun than a worksheet on your desk."

## Making the Grade

Some teachers think using CPS to grade a test is more efficient, or a better use of time, than grading a written test. The computer keeps track of the students' answers and prints out their grades at the end of the day. The computer also reports which questions the class found most difficult to answer, so Rex can review them with the group.

## Tech Trends

Classrooms across the country are trying out new teaching gadgets.

### The Right Touch

Sixth Graders Marina Gagliano (Front) and Kerry O'Conner of Wellwood Middle School in Fayetteville, New York, label parts of a microscope on an interactive whiteboard. The

whiteboard allows students to use their fingers to click and tap answers on the projected image.

## Get Up And Go

Fourth and fifth graders at Elton Hills Elementary School in Rochester, Minnesota, are on the move. Their classrooms have no chairs! Tiny desks hold high-tech gadgets, such as laptops and iPods, with different lessons. Researchers say this setup may be healthier for students than sitting at desks all day.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. One reason students might enjoy using the CPS is that they
  - A. have more time for recess.
  - B. can use it to play a math learning game.
  - C. don't have to study for their tests.
  - D. don't have any pencils.
2. The teachers like the CPS because
  - A. the teacher does not have to teach the students.
  - B. their students don't have to study for the tests.
  - C. the students use remote controls to answer questions.
  - D. it tells them what the class needs to study more.
3. The high tech classrooms described in this passage include
  - A. sixth grade only.
  - B. fourth, fifth, and sixth grades.
  - C. fourth and fifth grades.
  - D. fourth grade only.
4. Which is a positive effect of using gadgets in the classroom?
  - A. Students will spend more time alone and less time in groups.
  - B. Students have eye problems caused by looking at a computer screen all day.
  - C. Students' hands hurt from using the remote controls all day.
  - D. Students can move around the classroom.
5. Would you like to have gadgets available to use in your classroom? Explain.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Students at Wings Park Elementary School use remote controls to take tests, while students at Wellwood Middle School use

- A. iPods to learn lessons.
- B. whiteboards to label parts of a microscope.
- C. desks with laptop computers.
- D. remote controls to play learning games.

2. There are fewer \_\_\_\_\_ in a high-tech classroom than in a traditional classroom.

- A. tests
- B. teachers
- C. students
- D. papers

3. Which of the following is a fact?

- A. High-tech classrooms have more computers than traditional classrooms.
- B. Students enjoy high-tech classrooms more than traditional classrooms.
- C. Students learn more in a traditional classroom.
- D. Students learn more in a high-tech classroom.

4. At Elton Hills Elementary School, researchers say that the classrooms are healthier than traditional classrooms because

- A. there are fewer germs in the classroom because of the lack of desks.
- B. the students are interacting more with each other and making more friends.
- C. the students are moving more and getting more exercise.
- D. all of the above.

5. What are some possible problems with a high-tech classroom? Explain.

# Why Did the Cow Give Only Buttermilk?

Do each exercise and find your answer in the corresponding answer column. Write the letter of the exercise in the box containing the number of the answer.

(S)  $-2(-1 + 6)$

Answers:

(H)  $9(-4 - 3)$

(33) -44

(E)  $(-8 \cdot -3) - -5$

(13) -24

(L)  $(-9 + -2) \cdot 4$

(15) -10

(I)  $20 + (5 - 12)$

(19) 13

(A)  $-3(-7 + 1)$

(6) 29

(N)  $(-6 \cdot 2) + (2 \cdot -6)$

(24) 15

(3) 18

(27) -63

(U)  $(-1 - -8) + 4$

Answers:

(E)  $(7 + -12) \cdot 9$

(1) -60

(W)  $6(-3 - 7)$

(12) -32

(S)  $-2(-11 + -4)$

(17) -45

(I)  $(-15 + 9) - -1$

(4) 36

(A)  $-4 \cdot -2 \cdot -4$

(8) 30

(E)  $(-3 \cdot -6) - (5 \cdot -2)$

(24) 11

(21) 28

(32) -5

(G)  $8(16 + -7)$

Answers:

(T)  $9(20 - 30)$

(25) -33

(R)  $(-14 - 6) + 35$

(29) 15

(H)  $(-5 + 1) \cdot -12$

(34) -16

(E)  $4 - (2 - 15)$

(18) 72

(T)  $-11(-7 - -10)$

(9) 17

(K)  $(-5 \cdot -4) + (-6 \cdot 6)$

(4) -90

(30) -30

(16) 48

(H)  $(-4 + 9) \cdot -3$

Answers:

(M)  $-5 \cdot 8 \cdot -2$

(28) -28

(C)  $-10 - (99 - 100)$

(23) 0

(V)  $-6(-6 + -6)$

(26) 4

(E)  $(7 + -15) - 20$

(20) 72

(L)  $2 \cdot -3 \cdot 9$

(31) 80

(B)  $(-1 + -1) \cdot (-1 - -1)$

(7) -54

(2) -15

(11) -9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

# What Should a Boy Do If He Loses a Knee?

Do each exercise and find your answer in the corresponding set of answer boxes.  
Write the letter of the exercise in the box containing the answer.

(E)  $-15 \div 3$

(A)  $-88 \div -8$

(T)  $120 \div 10$

(B)  $(-18 \div -2) + (28 \div 7)$

(O)  $24 \div -2$

(H)  $49 \div -7$

(R)  $-48 \div 6$

(H)  $(12 \div -4) + (-64 \div 8)$

(U)  $\frac{72}{9}$

(P)  $\frac{-13}{13}$

(O)  $\frac{-100}{-25}$

(T)  $\frac{-42}{7} + \frac{-21}{-3}$

(S)  $\frac{-40}{-4}$

(O)  $\frac{300}{-5}$

(G)  $\frac{45}{3}$

(C)  $\frac{36}{9} + \frac{40}{-5}$

15	-12	18	1	-60	60	11	-15	13	8	12	-4	-7	-5	-8	7	10	-11	4	-1
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(A)  $54 \div -9$

(I)  $-60 \div -12$

(R)  $-120 \div 6$

(F)  $(25 \div -5) + (16 \div 2)$

(D)  $-28 \div -4$

(A)  $99 \div -1$

(N)  $-200 \div -5$

(S)  $(-63 \div -7) + (-15 \div 15)$

(E)  $\frac{100}{5}$

(K)  $\frac{-75}{25}$

(D)  $\frac{180}{18}$

(K)  $\frac{42}{-6} + \frac{-150}{3}$

(O)  $\frac{-32}{8}$

(Y)  $\frac{-36}{-18}$

(A)  $\frac{77}{-11}$

(N)  $\frac{-990}{-10} + \frac{0}{-9}$

-99	40	7	-5	-7	8	-3	4	3	-4	-20	-2	-6	-10	-57	5	10	99	20	2
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## 7<sup>th</sup> Grade Social Studies

I hope all is well with you and your families. I miss all my students!

Answers should be 3 to 4 sentences in length, and completed on your own paper.

Wednesday 25<sup>th</sup>: Why is Social Distancing being ignored? Do you think it's a good idea to keep our Social Distance during this outbreak of coronavirus?

Thursday 26<sup>th</sup>: How has the coronavirus hurt our economy? Clue, watch the news to help with this topic.

Friday 27<sup>th</sup>: If you were president of the United States, What would you say to the people, at this time of need?

Monday 30<sup>th</sup>: How does is this pandemic effecting business?

Tuesday 31<sup>st</sup>: Do you think we will see spring or summer sports this year?

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Wednesday April 1<sup>st</sup>: How do you think President Trump has handled the coronavirus? Explain your answer with examples.

Thursday April 2<sup>nd</sup>: Explain, the importance of going to school?

Friday April 3<sup>rd</sup>: How has the coronavirus impacted your life, and do you think we will see something like this again?

Monday April 6<sup>th</sup>: Explain how the coronavirus will affect our spring break?