

PLANTS AND PHOTOSYNTHESIS

ESCAPE ROOM

Station 1: Multiple Choice

6. How many main steps does the Calvin Cycle have?

- A. 4
- B. 6
- C. 8
- D. 10

Station 2: Paragraphs

First, number ALL the paragraphs on your reading passage. Then, read each statement below and determine which paragraph NUMBER the statement can be found in. Paragraph numbers MAY be used more than one time or not at all. Use the directions below to reveal the 4-digit code and letter clue.

Station 3: True or False

Read each statement below and determine if it is true or false. If the statement is true, color the coin on YOUR answer sheet that corresponds with that question. If the statement is false, cross out that coin value. When you are finished add the TOTAL of ALL TRUE coin values to reveal your letter clue. One digit of the code has been provided for you. If the total is 625, a 6 would go in the first box, the 2 in the second box and so on.

Station 4: Logic Puzzle

discovered MINUS 1954.

The FIRST number of the lock is the percent of the world's oxygen phytoplankton in the sea produces MINUS 6l.

The THIRD number of the lock is the year Joseph Priestley began the study of photosynthesis MINUS 1770.

Once you determine the 4-digit code, decide if the code uses all EVEN #s, all ODD #s or a combination of both.

Station 5: Reading Passage

This process of photosynthesis occurs in _____ stages. The first stage, known as Light Dependent Reactions (LDR), requires sunlight. During this stage, light energy from the sun is absorbed through the _____ and converted into chemical energy. The chemical energy is stored in a molecule called ATP (Adenosine Triphosphate). LDR take place in the thylakoid membrane of chloroplasts. The second stage, known as the Calvin Cycle, does not require sunlight and uses energy stored in ATP to make glucose. The Calvin Cycle was discovered by Melvin Calvin in _____ and has four main steps. Through photosynthesis, some glucose is stored inside fruits and vegetables. When humans eat these, they receive the _____ that their bodies need.

Once you determine the 4-digit code, decide if the code uses all EVEN #s, all ODD #s or a combination of both.

Station 6: Plants and Photosynthesis

Plants are living organisms that need food in order to survive. Humans and animals who must consume other things, plants are autotrophs because they make their own food source through photosynthesis. Photosynthesis is the process by which plants and other organisms use sunlight and carbon dioxide to produce oxygen and energy in the form of glucose. This process is vital to the earth and its inhabitants. In 1771, Joseph Priestley conducted an experiment in which he placed a candle in a closed container and observed that the mint plant kept the candle from going out. Dutch scientist Jan Ingenhousz discovered that plants give off oxygen to light. Photosynthesis requires sunlight. Animals (and humans) breathe in oxygen to the exact opposite of plants. Plants and animals breathe in oxygen.

THINK TANK

STATIONS ACTIVITY

WHAT'S INCLUDED?

- ✓ READING PASSAGE
- ✓ 5 STATIONS
- ✓ TEACHER GUIDE
- ✓ ANSWER KEY
- ✓ STUDENT DIRECTIONS
- ✓ TEXT MARKING OPTION
- ✓ PROP SIGNS

STATION 1: FILL IN THE BLANK

Use your reading passage to determine the missing words in the paragraph below. Each missing word has a corresponding NUMBER. The 4-digit code for this station will be the NUMBER for each missing word, in the same order in which they appear in the paragraph. Then, record the clue LETTER on your answer sheet.

STATION 2: PARAGRAPHS

First, number ALL the paragraphs on your reading passage. Then, read each statement below and determine which paragraph NUMBER the statement can be found in. Paragraph numbers MAY be used more than one time or not at all. Follow the directions below to reveal the 4-digit code and letter clue.

STATION 3: TRUE OR FALSE

Read each statement below and determine if it is true or false. If the statement is true, color the coin on YOUR answer sheet that corresponds with that question. If the statement is false, cross out that coin value. When you are finished add the TOTAL of ALL TRUE coin values to reveal your letter clue. One digit of the code has been provided for you. If the total is 625, a 6 would go in the first box, the 2 in the second box and so on.

STATION 4: COMBINATION

Use your reading passage to determine the combination to the 4-digit lock for this station. You're going to have to use your critical thinking skills and do a tiny bit of math. Pay attention because the "clues" below are NOT in order. There is room on your answer sheet to do the math.

STATION 5: MULTIPLE CHOICE

Answer each multiple-choice question below. Then, count the number of times you used each letter answer (ABCD) to reveal your 4-digit code. Letters may be used more than once or not at all. If a letter option is not used, put a zero in that box on your answer sheet.

ANSWER RECORDING SHEET

Record your answers for each station on this sheet. Then, use the directions below to determine final 4-digit ALPHA code. Ex: HBDR

STATION CODES

LETTER CLUE

STATION 1	→	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	CODE	<input type="text"/>
-----------	---	----------------------	----------------------	----------------------	----------------------	------	----------------------

A	B	C	D	E	F	<input type="text"/>
---	---	---	---	---	---	----------------------

STATION 2	→	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	CODE	<input type="text"/>
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ENTER

1

2

3

TEACHER DIRECTION

- 1 Print the reading passage found on [pages 5-6](#) for EACH (front and back).
- 2 Print the answer recording sheet on [page 12](#) for each student group of students.

RECAP: Print pages 5, 6, and 12 for students.

STATION

5

BLUE

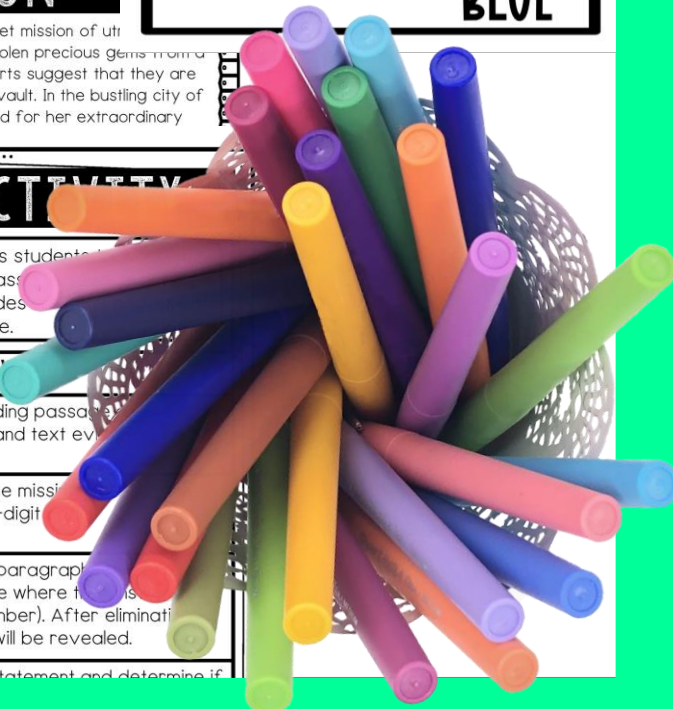
THE MISSION

You have been assigned a top-secret mission of utmost importance. A notorious thief has stolen precious gems from a prominent lady, and intelligence reports suggest that they are hidden in a heavily guarded secret vault. In the bustling city of Oakville, Lady Victoria was renowned for her extraordinary

ABOUT THIS ACTIVITY

The reading passage in this packet allows students to practice their comprehension skills after reading the passage. Students will be searching for evidence. Each station includes a question that will reveal a letter clue.

	OVERVIEW
READING PASSAGE	Students will use the reading passage at each station seeking answers and text evidence.
STATION 1	Students will determine the missing word in the paragraph to reveal a 4-digit code.
STATION 2	Students will number the paragraphs in the reading passage to determine where the missing words can be found (paragraph number). After eliminating the incorrect numbers, a 4-digit code will be revealed.
STATION 3	Students will read each statement and determine if it is true or false.



STATIONS

ABOUT THIS ACTIVITY

The reading passage in this packet allows students to work on comprehension skills after reading the passage several times searching for evidence. Each station includes a 4-digit code that will reveal a letter clue.


OVERVIEW

READING PASSAGE	Students will use the reading passage at EACH station seeking answers and text evidence.
STATION 1	Students will determine the missing words in the paragraph to reveal a 4-digit code.
STATION 2	Students will number the paragraphs and browse the passage to determine where the answers can be found (paragraph number). After eliminating numbers, a 4-digit code will be revealed.
STATION 3	Students will read each statement and determine if it is true or false. They will then ADD all TRUE values to find the 4-digit code.
STATION 4	Students will do some basic math here, read the passage to find the answers and then determine the 4 digit code.
STATION 5	Students will answer 6 multiple choice questions which lead them to a 4 digit code based on the number of times they used each "ABCD" answer.
TEXT MARKING	OPTIONAL: A color code chart is included in case you want students to mark the text, citing evidence of where they found their answers. (This will increase completion time)

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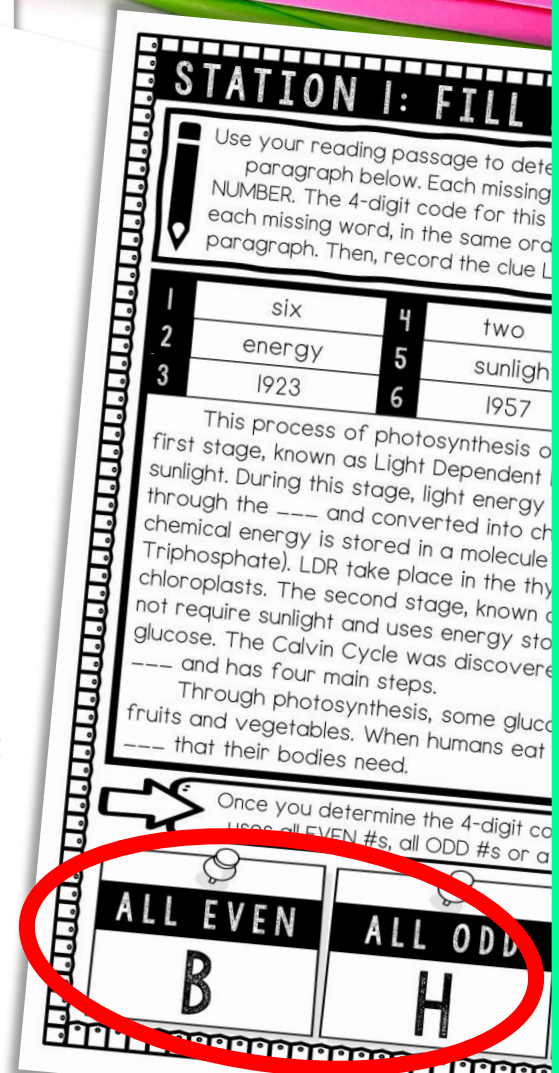
**STUDENTS WILL
USE THE SAME
READING
PASSAGE AT
EACH STATION
SEEKING
ANSWERS AND
TEXT EVIDENCE.**

HOW IT WORKS



ENGAGING READING
COMPREHENSION PRACTICE!

- 1 Students work individually (or in pairs) and visit 5 stations, answer questions, decipher a 4-digit code at each station and grab a "letter" clue for the final alpha code.
- 2 Students will answer the questions (found directly in the passage) on their own recording sheet. Students will have to revisit their reading passage several times at EACH station skimming for answers.



STATION 1: FILL

Use your reading passage to determine the missing word in each paragraph below. Each missing word has a 4-digit code. Record the code for each missing word, in the same order as the missing word, in the same order as the missing word. Then, record the clue letter.

1	six	4	two
2	energy	5	sunlight
3	1923	6	1957

This process of photosynthesis occurs in two stages. The first stage, known as Light Dependent Reactions, occurs in the presence of sunlight. During this stage, light energy is captured through the ___ and converted into chemical energy. This energy is stored in a molecule of ATP (Adenosine Triphosphate). LDR take place in the thylakoids of chloroplasts. The second stage, known as the Calvin Cycle, does not require sunlight and uses energy stored in ATP and NADPH to produce glucose. The Calvin Cycle was discovered by Melvin Calvin and has four main steps. Through photosynthesis, some glucose is used to produce fruits and vegetables. When humans eat these foods, they get the energy that their bodies need.

Once you determine the 4-digit code for each missing word, use all EVEN #s, all ODD #s or a combination of even and odd numbers to determine the clue letter.

ALL EVEN	ALL ODD
B	H

BENEFITS

- ✓ STATIONS AND MOVEMENT
- ✓ CLOSE READING
- ✓ COMPREHENSION SKILLS
- ✓ SECRET CODES
- ✓ CITING EVIDENCE
- ✓ CRITICAL THINKING
- ✓ PRINT AND GO
- ✓ ACTIVE LEARNING
- ✓ CROSS-CURRICULAR
- ✓ HIGHLY ENGAGING
- ✓ NO LOCKS NEEDED
- ✓ NO SILLY ENVELOPES TO STUFF
- ✓ NO ODD SHAPES TO CUT OUT



Everything a teacher dreams of wrapped up into one FUN and engaging activity!

USE FOR:



ANTICIPATORY SETS



UNIT REVIEW



EARLY FINISHERS



STATIONS



REWARD ACTIVITY



CENTERS



SUB PLANS



PARTNER WORK



ENRICHMENT

